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THE
LONDON ENCYCLOPÆDIA.

VOL. XIX.

ROME TO SEDUCTION.

J. Haddon, Printer, Castle Street, London.

THE
LONDON ENCYCLOPÆDIA,
OR
UNIVERSAL DICTIONARY

OF
SCIENCE, ART, LITERATURE, AND PRACTICAL MECHANICS,

COMPRISING A
POPULAR VIEW OF THE PRESENT STATE OF KNOWLEDGE.

ILLUSTRATED BY
NUMEROUS ENGRAVINGS, A GENERAL ATLAS,
AND APPROPRIATE DIAGRAMS.

Sic oportet ad librum, presertim miscellanei generis, legendum accedere lectorem, ut solet ad convivium conviva civilis. Convivator annittitur omnibus satisfacere; et tamen si quid apponitur, quod hujus aut illius palato non respondeat, et hic et ille nrhane dissimulant, et alia ferecula probant, ne quid contristent convivatorem. Erasmus.

A reader should sit down to a book, especially of the miscellaneous kind, as a well-behaved visitor does to a banquet. The master of the feast exerts himself to satisfy his guests; but if, after all his care and pains, something should appear on the table that does not suit this or that person's taste, they politely pass it over without notice, and commend other dishes, that they may not distress a kind host. *Translation.*

BY THE ORIGINAL EDITOR OF THE ENCYCLOPÆDIA METROPOLITANA,
ASSISTED BY EMINENT PROFESSIONAL AND OTHER GENTLEMEN.

IN TWENTY-TWO VOLUMES.

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THE
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R O M E.

CARUS, NUMERIAN, AND CARINUS.—Carus, who was prætorian præfect to the deceased emperor, was chosen by the army to succeed him; and he, to strengthen his authority, united with him his two sons Carinus and Numerian in command; the former of whom was as remarkable for his vices, as the latter was for his virtues. Carus had scarcely time to punish the murderers of the late monarch, when he was alarmed by a fresh irruption of the Sarmatians, over whom he gained a signal victory. The Persian monarch also made some attempts upon the empire; but Carus assured his ambassadors that, if their master persisted in his obstinacy, all his fields should shortly be as bare as his own bald head: a dreadful battle ensuing, he once more gained a complete victory. But he was shortly after struck dead by lightning in his tent, with many others around him. Numerianus was inconsolable for his death; and brought a disorder upon his eyes, we are told, with weeping. The peculiarity of his situation, after some time, excited the ambition of Aper, his father-in-law, who supposed that he could now, without danger, aim at the empire himself. He therefore hired a villain to murder the emperor in his litter; and, to conceal the fact, gave out that he was alive, but unable to endure the light. In this manner was the dead body carried about for some days, Aper continuing to attend it with the utmost respect, and to take orders as usual. However, the offensiveness of its smell, at length discovered the treachery, and excited a universal uproar. In the midst of this tumult, Dioclesian, one of the most noted commanders of his time, was chosen emperor, and with his own hand slew Aper, having thus, as it is said, fulfilled a prophecy, that he should be emperor after he had slain a boar, alluding to the name of his rival. Carinus did not long survive his father and brother; for giving himself up to his vices, and opposing the new-made emperor, the competitors led their forces into Mæsia; where, Dioclesian being victorious, Carinus was slain by a tribune of his own army, whose wife he had formerly abused.

DIOCLESIAN AND MAXIMIAN.—Dioclesian received his name from Dioclea, the town in which he was born; and was about forty years old when he was elected emperor. He pardoned all who had joined Carinus. Conscious also that the weight of the empire was too heavy for one alone to sustain, he took in Maximian, his general, as a partner in the throne. There never was a period in which the empire had more numerous or formidable enemies to oppose. In

Gaul the peasants and laborers made a dangerous insurrection, under Amandus and Helianus, but were subdued by Maximian. Achilles, who commanded in Egypt, proclaimed himself emperor; and it was not without many bloody engagements that he was overcome. In Africa, the Roman legions, joined with many of the natives, seized upon the public revenues, and plundered those who continued in their duty. These were also subdued by Maximian. About the same time a principal commander in Britain, named Carausius, then proclaimed himself emperor, and possessed himself of the island. To oppose this general, Maximian made choice of Constantius Chlorus, whom he created Cæsar, and married to Theodora his daughter-in-law. About this time also Narses, king of Persia, began a dangerous war, and invaded Mesopotamia. The Persians, however, were overcome in a decisive engagement, and their camp plundered and taken. There only remained, of all the enemies of the empire, those who lay to the northward, the Goths, Sarmatians, Alani, Quadi, &c., who poured down in incredible numbers. During this period, as if the external miseries of the empire had not been sufficient, the tenth and last great persecution raged against the Christians. It exceeded all the former in severity; and, such was the zeal with which it was pursued, that, in an ancient inscription, we are informed that they had effaced the name and superstition of the Christians. Their attempts, however, were but the malicious efforts of an expiring party; for Christianity soon after was established by law. In the midst of the troubles raised by this persecution, and of the contests that struck at the internal parts of the state, Dioclesian and Maximian surprised the world by resigning their dignities on the same day, and both retiring into private stations. Historians are much divided concerning the motives that thus induced them to give up those honors which they had purchased with so much danger. When some attempted to persuade Dioclesian to resume the empire, he replied, 'That, if they knew his present happiness, they would rather endeavour to imitate than disturb it.' Maximian, his partner in the empire and in resignation, was by no means so contented. He conducted various intrigues for a return to power, and endeavouring to force his own daughter, and destroy her husband, he was detected; and condemned to die by whatever death he should think proper; Lactantius tells us that he chose hanging.

CONSTANTIUS CHLORUS, AND GALERIUS.—Upon the resignation of the two emperors the

two Cæsars were universally acknowledged as their successors. They agreed to divide the empire, Constantius being appointed to govern the western parts; namely, Italy, Sicily, the greatest part of Africa, together with Spain, Gaul, Britain, and Germany: Galerius had the eastern parts; to wit, Illyricum, Pannonia, Thrace, Macedonia, all the provinces of Greece, and the Lesser Asia, with Egypt, Syria, Judea, and all the countries eastward. The greatness of the division, however, soon induced the emperors to take in two partners more, Severus and Maximin, who were made Cæsars, and assisted in the conducting of affairs: so that the empire now was under the guidance of four persons, all invested with supreme authority. We are informed but of few particulars of the reign of Constantius, except a detail of his character, which appears in every light most amiable. In the second year of his reign he went over into Britain; and, leaving his son Constantine as a kind of hostage in the court of his partner in the empire, took up his residence at York. Here, when ill past recovery, he sent for him, and, raising himself up in his bed, gave him his dying instructions. In the mean time Galerius, Constantius's partner, being informed of Constantine's advancement, testified the most ungovernable rage; declaring Severus emperor in opposition. About this time also another pretender to the empire started up. This was Maxentius, who was very much favored by the soldiers, whom he permitted to pillage at discretion. To oppose Maxentius Severus led a numerous army towards Rome; but his soldiers, considering against whom they were to fight, immediately abandoned him. To revenge his death Galerius marched into Italy, resolving to destroy the whole senate. His soldiers however, upon approaching the capital, began to waver; when he had recourse to entreaties, imploring them not to abandon him; and, retiring, made Licinius, the son of a poor laborer in Dacia, Cæsar, in the room of Severus. Soon after he was seized with a disorder which baffled all the skill of his physicians, and carried him off after he had languished in torments for nearly a year. His cruelty to the Christians was one of the many crimes alleged against him; but he abated much of his severities against them in his illness.

MAXENTIUS.—Constantine, being thus delivered from his greatest opponent, now possessed more power than any of his rivals. The empire was at that time divided between him and three others: Maxentius, who governed in Rome, a person of a cruel disposition, and a stedfast supporter of paganism; Licinius, who was adopted by Galerius, and commanded in the east; and Maximin, who had formerly been declared Cæsar with Severus, and who also governed some of the eastern provinces. For some time all things seemed to wear a peaceful appearance: till either ambition or the tyrannical conduct of Maxentius induced Constantine to engage in an expedition to expel that commander from Rome, and to make the proper preparations for marching into Italy. Upon this occasion he formed a resolution which produced a mighty change in the politics as well as the morals of mankind, and gave

a new turn to the councils of the wise and the pursuits of the ambitious. See in his life, article **CONSTANTINE**, the account of his conversion to Christianity. After this he consulted with several of the principal teachers of Christianity, and made a public avowal of that persuasion, thus attaching to his interest his soldiers, who were mostly Christians. He lost no time in entering Italy with 90,000 foot and 8000 horse; and soon advanced to the very gates of Rome. Maxentius, who had long given himself up to ease and debaucheries, now began to make preparations when it was too late. He first put in practice all the superstitious rites which paganism taught to be necessary; and then consulted the Sibylline books, whence he was informed that on that day the great enemy of Rome should perish. This prediction, which was equivocal, he applied to Constantine; wherefore, leaving all things in the best posture, he advanced from the city with an army of 100,000 foot and 18,000 horse. The engagement was for some time fierce and bloody: till, his cavalry being routed, victory declared upon the side of his opponent, and he himself was drowned in his flight by the breaking down of a bridge, as he attempted to cross the river Tiber. Constantine, in consequence of this victory, entering the city, disclaimed all the praises which the senate and people were ready to offer, ascribing his success to a superior power. He even caused the cross, which he was said to have seen in the heavens, to be placed at the right of all his statues, with this inscription: 'That, under the influence of that victorious ensign, Constantine had delivered the city from the yoke of tyrannical power.' He afterwards ordained that no criminal should for the future suffer death by the cross; and edicts were soon after issued, declaring that the Christians should be eased from their grievances, and received into places of trust and authority. Thus the new religion soon prevailed over the whole empire.

CONSTANTINE AND LICINIUS.—While this great change was proceeding, Maximin, who governed in the east, marched against Licinius with a very numerous army; but a general engagement ensued, in which Maximin suffered a total defeat. Maximin, however, having escaped the carnage, once more put himself at the head of another army, resolving to try the fortune of the field; but death anticipated his designs. Constantine and Licinius being now undisputed possessors and partners in the empire, all things promised a peaceable continuance of their friendship and power. Pagan writers ascribe the rupture that unexpectedly took place between these two potentates to Constantine; while the Christians, on the other hand, impute it to Licinius. Both sides exerted all their power, as usual, to prevail, and, at the head of very formidable armies, came to an engagement near Cybalis, in Pannonia. Previous to the battle Constantine, in the midst of the Christian bishops, begged the assistance of Heaven; while Licinius, with equal zeal, called upon the pagan priests to intercede with the gods. Constantine, after an obstinate resistance from the enemy, became victorious; took their camp; and, after some time, compelled Licinius to sue for a short truce. It was indeed short: but we have

pursued the rest of the history of the first of the Christian emperors in the article referred to. He conceived and executed the bold measure of transferring the seat of the empire from Rome to Constantinople. The empire had long before been in the most declining state; but this gave precipitation to its downfall: it never after resumed its former splendor. The inhabitants of Rome, though with reluctance, submitted to the change; nor was there for several years any disturbance in the state, until the Goths renewed their inroads on the Danube. Constantine, however, soon repressed their incursions, and so straightened them that nearly 100,000 of their number perished. The government of the empire was afterwards divided as follows:—Constantine, the emperor's eldest son, commanded in Gaul and the western provinces; Constantius governed Africa and Illyricum; and Constans ruled in Italy. Dalmatius, the emperor's brother, was sent to defend those parts that bordered upon the Goths; and Annibalianus, his nephew, had the charge of Cappadocia and Armenia Minor. The latter part of the reign of Constantine was peaceful and splendid; ambassadors from the remotest Indies came to acknowledge his authority; the Persians, who were ready for fresh inroads, upon finding him prepared to oppose, sent humbly to desire his friendship and forgiveness. He died at above sixty years old, and had reigned above thirty years.

CONSTANTINE'S SONS.—After the death of Constantine, the army and senate proclaimed his three sons emperors, without taking any notice of Dalmatius, and Annibalianus, who were soon after murdered, with Julius Constantinus the late emperor's brother, and all their friends and adherents. Thus the family of Constantine was reduced to the three sons and three nephews; Gallus and Julian, the sons of Julius Constantius, and Nepotianus, the son of Eutropia, Constantine's sister. Of these Gallus owed his life to a malady, from which no one thought he could recover; and Julian to his infancy, being then only seven years of age. The three brothers divided among themselves the dominions of the deceased princes; but did not long agree. In 340 Constantine, having in vain solicited Constans to yield part of Italy to him, raised a considerable army; and under pretence of marching to the assistance of his brother Constantius, who was then at war with the Persians, made himself master of several places in Italy. Hereupon Constans detached part of his army against him; and Constantine, being drawn into an ambuscade near Aquileia, was cut off with his whole forces. His body was thrown into the Ansa; but, being afterwards discovered, was sent to Constantinople, and interred near that of his father. By the defeat and death of his brother, Constans remained sole master of all the western empire, in the quiet possession of which he continued till the year 350. This year Magnentius, the son of a native of Germany, finding Constans despised by the army on account of his indolence and inactivity, resolved to murder him, and set up for himself. Having gained over the chief officers of the army, he seized on the Imperial palace at Autun, and dis-

tributed among the populace what sums he found; which induced not only the city, but the neighbouring country, to espouse his cause. Constans being informed of what had passed, and finding himself unable to resist the usurper, fled towards Spain. He was overtaken, however, by Gaiso, whom Magnentius had sent after him with a body of troops, and despatched at Helena, near the foot of the Pyrenees.

CONSTANTIUS.—Constantius had been engaged in a war with the Persians, in which little advantage had been gained on either side; but, the Persians now giving no more disturbance, he marched against the usurpers; for besides Magnentius there were at this time two other-pretenders to the western empire. Veteranio, general of the foot in Pannonia, had on the first news of the death of Constans, caused himself to be proclaimed emperor by the legions under his command. He was a native of Upper Mœsia, and advanced in years when he usurped the sovereignty; but so illiterate that he then first learned to read. The third was Flavius Popilius Nepotianus, who claimed right as nephew of Constantine the Great. Having assembled a company of gladiators and men of desperate fortunes he assumed the purple on the 3d of June 350, and in that attire presented himself before the gates of Rome. The prefect Anicetus, who commanded there for Magnentius, sallied out against him with a body of Romans; who were soon driven back into the city. Soon after Nepotianus made himself master of the city itself, which he filled with blood and slaughter. Magnentius, being informed of what had happened, sent against this new competitor his chief favorite Marcellinus. Nepotianus received him with great resolution; a battle ensued between the soldiers of Magnentius and the Romans who had espoused the cause of Nepotianus; but the latter being betrayed by a senator, named Heraclitus, his men were put to flight, and he himself killed, after having enjoyed the sovereignty only twenty-eight days. Marcellinus ordered his head to be carried on the point of a lance through the principal streets of the city; put to death all those who had declared for him; and, under pretence of preventing disturbances, commanded a general massacre of all the relations of Constantine. Soon after, Magnentius himself came to Rome to make the necessary preparations for resisting Constantius, who was exerting himself to the utmost to revenge the death of his brother. In the city he behaved most tyrannically: put to death many persons of distinction; seized their estates; and obliged the rest to contribute half of what they were worth towards the expense of the war. Having thus raised great sums, he assembled an army of Romans, Germans, Gauls, Franks, Britons, Spaniards, &c.; but, dreading the uncertain issues of war, he despatched ambassadors to Constantius with proposals of accommodation. Constantius set out from Antioch about the beginning of autumn; and, passing through Constantinople, arrived at Heraclea, where he was met by the deputies of Magnentius, and others from Veteranio, who had agreed to support each other in case the emperor would hearken to no

terms. The deputies of Magnentius proposed a match between him and Constantina, the sister of Constantius, and widow of Annibalianus; offering, at the same time, to Constantius the sister of Magnentius. The emperor would hearken to no terms with Magnentius; but, that he might not have to oppose two enemies at once, concluded a separate treaty with Veteranio, by which he agreed to take him for his partner in the empire. But, when Veteranio ascended the tribunal along with Constantius, the soldiers pulled him down, saying they would acknowledge no emperor but Constantius. On this Veteranio threw himself at the emperor's feet, and implored his mercy. Constantius received him with great kindness, and sent him into Bithynia, where he allowed him a maintenance suitable to his quality. Now master of all Illyricum, and of the army commanded by Veteranio, Constantius resolved to march against Magnentius. In the mean time, however, on advice that the Persians were preparing to invade the eastern provinces, he married his sister Constantina to his cousin german Gallus; created him Cæsar on the 15th of March; and allotted him for his share not only all the east, but likewise Thrace and Constanti-nople.

About the same time Magnentius gave the title of Cæsar to his brother Decentius, whom he despatched into Gaul to defend that country against the barbarians who had invaded it; for Constantius had not only stirred up the Franks and Saxons to break into that province by promising to relinquish to them all the places they should conquer, but had sent him large supplies of men and arms for that purpose. On this encouragement the barbarians invaded Gaul with a great army, overthrew Decentius in a pitched battle, committed every where dreadful ravages, and reduced the country to a most deplorable situation. Mean time Magnentius, having assembled a numerous army, left Italy, and, crossing the Alps, advanced into the plains of Pannonia, where Constantius, whose main strength consisted of cavalry, was waiting for him. Magnentius, hearing that his competitor was encamped at a small distance, invited him by a messenger to the extensive plains of Sciscia on the Saue, there to decide which of them had the best title to the empire. This challenge was by Constantius received with great joy; but, as his troops marched towards Sciscia in disorder, they fell into an ambuscade, and were put to flight. With this success Magnentius was so elated that he rejected all terms of peace; after some time, a general engagement ensued at Mursa, in which Magnentius was entirely defeated, with the loss of 24,000 men. Constantius, though victor, is said to have lost 30,000. All authors agree that the battle proved fatal to the western empire, and greatly contributed to its speedy decline. After his defeat at Mursa, Magnentius retired into Italy, where he recruited his scattered forces as well as he could. But in the beginning of the following year, 352, Constantius, having assembled his troops, surprised and took a strong castle on the Julian Alps, belonging to Magnentius, without the loss of a man. After this the emperor ad-

vanced in order to force the rest; upon which Magnentius was struck with such terror that he immediately abandoned Aquileia, and ordered the troops that guarded the other passes of the Alps to follow him. Thus Constantius, entering Italy without opposition, made himself master of Aquileia. Thence he advanced to Pavia, where Magnentius gained a considerable advantage over him. Notwithstanding this loss, Constantius reduced the whole country bordering on the Po, and Magnentius's men deserted to him in whole troops, delivering up to him the places they had garrisoned; by which the tyrant was so disheartened that he left Italy, and retired with all his forces into Gaul. Soon after this, Africa, Sicily, and Spain, declared for Constantius; upon which Magnentius sent a senator, and after him some bishops, to treat of a peace; but the emperor treated the senator as a spy, and sent back the bishops without an answer. Finding his affairs now desperate, and that there was no hopes of pardon, Magnentius recruited his army in the best manner he could, and despatched an assassin into the east to murder Gallus Cæsar. The assassin gained over some of Gallus's guards; but the plot being discovered they were all seized and executed as traitors. In 353 the war against Magnentius was carried on with more vigor than ever, and at last happily ended by a battle fought in that part of Gaul afterwards called Dauphny. Magnentius, being defeated, took shelter in Lyons; but the few soldiers who attended him, despairing of any further success, resolved to purchase the emperor's favor by delivering up to him his rival. Accordingly they surrounded the house where he lodged; upon which the tyrant, in despair, slew with his own hand his mother, his brother Desiderius, whom he had created Cæsar, and such of his friends and relations as were with him; and then, fixing his sword in a wall, threw himself upon it. After the death of Magnentius, his brother Decentius, finding himself surrounded on all sides by the emperor's forces, chose also to strangle himself. Thus Constantius was left sole master of the Roman empire. His panegyrist says that after his victory he behaved with the greatest humanity, forgiving and receiving into favor his greatest enemies, other historians tell us that he now became haughty, imperious, and cruel, of which many instances are given. In this year, 353, the empire was subject to very grievous calamities. Gaul was ravaged by the barbarians beyond the Rhine, and the disbanded troops of Magnentius: at Rome the populace rose on account of a scarcity of provisions. In Asia the Isaurian robbers over-ran Lyeaonia and Pamphylia and laid siege to Seleucia. At the same time the Saracens committed dreadful ravages in Mesopotamia; the Persians also invaded the provinces of Anthemusia on the Euphrates. But the Eastern provinces were not so much harassed by barbarians as by Gallus Cæsar himself, who ought to have protected them. That prince was naturally of a cruel, haughty, and tyrannical disposition; but, elated with his successes against the Persians, he at last behaved like a madman. His cruelty is said to have been heightened by the instigations of his wife Constantina, who is

by Ammianus styled the Megæra, or 'fury of her sex;' and he adds that her ambition was equal to her cruelty. Thus all the provinces and cities in the east were filled with blood and misery. No man, however innocent, was sure to live or enjoy his estate a whole day; for, Gallus's temper being equally suspicious and cruel, those who had any private enemies took care to accuse them of crimes against the state. At last the emperor being informed from all quarters of his conduct, and also that he aspired to the sovereignty, resolved upon his ruin. He wrote letters to Gallus and Constantina, inviting them both into Italy, and they durst not venture to disobey the emperor's express command. Constantina, who was well acquainted with her brother's temper, set out first, leaving Gallus at Antioch; but she had scarcely entered the province of Bithynia, when she was seized with a fever which put an end to her life. Gallus, now despairing of being able to appease his sovereign, thought of openly revolting; but most of his friends deserted him, so that he was at last obliged to submit unreservedly to Constantius. He advanced, therefore, according to his orders; but at Pitavium was arrested, and stripped of all the ensigns of dignity. Thence he was carried to Flanona, in Dalmatia. He confessed most of the crimes laid to his charge; but urged as an excuse the evil councils of his late wife. The emperor, provoked at this plea, and instigated by the enemies of Gallus, signed a warrant for his execution. All this time the emperor had been engaged in a war with the Germans; and, though he gained no advantage, the barbarians thought proper to make peace with him. This, however, was but short lived. No sooner was the Roman army withdrawn, than they began to make new inroads. Against them Constantius despatched Arbetio with the flower of the army; but he fell into an ambuscade, and was put to flight with great loss. This, however, was soon retrieved by the valor of Arintheus, who became famous in the reign of Valens, and of two other officers, who falling upon the enemy, without waiting the orders of their general, put them to flight, and obliged them to leave the Roman territory. The tranquillity of the empire, which ensued on this repulse of the Germans, was soon interrupted by a pretended conspiracy, but by which in the end a true one was produced. Sylvanus, a leading man among the Franks, commanded in Gaul, and had there performed great exploits against the barbarians. He had been raised to his post by Arbetio, only with a design to remove him from the emperor's presence, in order to accomplish his ruin, which he did in the following manner: one Dynames, leaving Gaul, begged of Sylvanus letters of recommendation to his friends at court; which being granted, the traitor erased all but the subscription. He then inserted directions to the friends of Sylvanus for the carrying on a conspiracy; and delivering these forged letters to the prefect Lampridius, they were by him shown to the emperor. Thus Sylvanus was in a manner forced into revolt, and caused himself to be proclaimed emperor. In the mean time, Dynames having forged another letter, the fraud was discovered, and an enquiry

set on foot, which brought to light the whole matter. Sylvanus was declared innocent, and letters sent to him by the emperor confirming him in his post: they were scarcely despatched, when the news arrived of Sylvanus having revolted. Thunder-struck at this news, Constantius despatched against him Ursicinus, an officer of great valor, who, pretending to be Sylvanus's friend, cut him off by treachery. The barbarians, who had been hitherto kept quiet by the brave Sylvanus, no sooner heard of his death than they broke, with greater fury than ever, into Gaul; and took and pillaged about forty cities, and among the rest Cologne, which they levelled with the ground; while the Quadi and Sarmatians, entering Pannonia, destroyed every thing with fire and sword. The Persians overran, without opposition, Armenia and Mesopotamia: Prosper and Mausonianus, who had succeeded in the government of the east, being more intent upon pillaging than defending the provinces committed to them. Constantius, not thinking it advisable to leave Italy, raised his cousin Julian to the dignity of Cæsar.

Julian seems to have been a man of extraordinary talents; for though hitherto entirely buried in obscurity, and conversant only with books, no sooner was he placed at the head of an army than he behaved with the greatest bravery and skill. He was appointed governor of Gaul; but before he set out Constantius gave him in marriage his sister Helena. He, however, limited his authority; gave him written instructions how to behave; ordered the generals who served under him to watch his actions, and strictly enjoined Julian himself not to give any largesses to the soldiery. Julian set out from Milan on the 1st of December 355, the emperor himself accompanying him as far as Pavia; whence he pursued his journey to the Alps, attended only by 360 soldiers. On his arrival at Turin he was first acquainted with the loss of Cologne. He arrived at Vienne before the end of the year 355. In 356 the barbarians besieged Autun. Julian marched to his relief, but found the siege raised: on which he pursued the barbarians to Auxerre and Troies, and put them to flight with a handful of men. From Troies he hastened to Rheims, where the main body of the army, commanded by Marcellus, awaited his arrival. Thence he took his route towards Decempagi (now Dieuze), on the Seille in Lorraine, to oppose the Germans who were ravaging that province. But the enemy attacking his rear had nearly cut off two legions. A few days after he defeated the Germans, though with great loss to his own army: the victory, however, opened him a way to Cologne. Here he caused the ancient fortifications to be repaired, and the houses rebuilt; after which he took up his winter quarters at Sens. Constantius entered Germany on the side of Rætia, laid waste the country far and wide; and obliged the barbarians to sue for peace. He enacted two laws: 1. declaring idolatry capital; and, 2. granting the effects of condemned persons to their children and relations within the third degree. In the beginning of 357 the barbarians besieged Julian a whole month in Sens: Marcellus, the commander-in-chief, never once offering to assist

him. Julian, however, so valiantly defended himself with the few forces he had that the barbarians at last retired. After this Constantius declared Julian commander-in-chief of all the forces in Gaul; appointing under him one Severus, an officer of great experience, and of a quite different disposition from Marcellus. On his arrival Julian raised new troops, and supplied them with arms which he found in an old arsenal. The emperor, resolving to put a stop to the terrible devastations committed chiefly by the Alemans, wrote to Julian to march directly against them. At the same time he sent Barbatio, the successor of Sylvanus, with 25,000 or 30,000 men, out of Italy, in order to enclose the enemy between two armies. The Leti, however, a German nation, passing between the armies, advanced as far as Lyons, hoping to surprise that wealthy city; but, meeting with a warmer reception than they expected, contented themselves with ravaging the country all round it. On the first notice of this expedition Julian detached strong parties to guard the passages through which he knew the barbarians must return. Thus they were all cut off except those who marched near the camp of Barbatio; who was so far from cutting off their retreat that he complained by a letter to Constantius of some officers for attempting it. These officers, among whom was Valentinian, afterwards emperor of the west, were, by the orders of Constantius, cashiered for their disobedience. The other barbarians either fortified themselves in the countries which they had seized, or took shelter in the islands formed by the Rhine. Julian resolved first to attack the latter; and with this view demanded some boats of Barbatio; but he, instead of complying with his request, immediately burnt his boats, as he did on another occasion the provisions which had been sent to both armies, after he had plentifully supplied his own. Julian, not in the least disheartened with this unaccountable conduct, persuaded some of the most resolute of his men to wade over to one of the islands. Here they killed all the Germans who had taken shelter in it. They then seized their boats, and pursued the slaughter in several other islands, till the enemy abandoned them all, and retired, with their wives and booty, to their respective countries. On their departure Barbatio attempted to form a bridge of boats on the Rhine; but the enemy, apprised of his intention, threw a great number of huge trees into the river; which, being carried by the stream against the boats, sunk several of them. The Roman general then retired; but the barbarians, falling unexpectedly upon him, cut off great numbers of his men, and returned loaded with booty. Elated with this success they assembled in great numbers under the command of Chnodomarius, a prince of great renown among them, and six other kings. They encamped in the neighbourhood of Strasburg. Here they were encountered by Julian, who put them to flight with the loss of 6000 or 8000 of their men slain in the field, and a greater number drowned in the river; while Julian himself lost only 243 men and four tribunes. In this action Chnodomarius was taken and sent to Rome, where he soon after died. After the battle Julian advanced

with all his army to Mayence, where he built a bridge over the Rhine, and, having with difficulty prevailed upon his army to follow him, entered Germany. Here he ravaged the country, till, being prevented by snow from advancing, he began to repair the fort of Trajan, about three or four leagues from Frankfort. The barbarians, now alarmed, sent deputies to treat of a peace; but this Julian refused to grant upon any terms. He consented, however, to a truce of seven months, upon their promising to store with provisions the fort he was building. In 358 he took the field against the Franks, who were divided into several tribes, the most powerful of which were the Sali and Chamavi. The first of these he soon subdued; after which he allotted them lands in Gaul, incorporating great numbers into his cavalry. He next marched against the Chamavi, whom he defeated and obliged to retire beyond the Rhine. Afterwards he rebuilt three forts on the Meuse, which had been destroyed by the barbarians; but, wanting provisions, he ordered 600 or 800 vessels to be built in Britain to bring corn from thence into Gaul. Julian continued in the country of the Chamavi till the expiration of his truce with the Alemans, and then, laying a bridge of boats over the Rhine, entered their country with fire and sword. At last two of their kings came in person to sue for peace; which Julian granted on their promising to set at liberty the captives they had taken; to supply a certain quantity of corn when required; and to furnish wood, iron, and carriages, for repairing the cities they had ruined. The prisoners released amounted to upwards of 20,000. Soon after the vernal equinox Constantius marched against the Quadi and Sarmatians, whose country lay beyond the Danube. Having crossed that river he laid waste the territories of the Sarmatians; who thereupon came in great numbers, together with the Quadi, pretending to sue for peace. Their true design was to surprise the Romans; but the latter, suspecting it, fell upon them sword in hand. This obliged the rest to sue for peace in earnest, which was granted on the delivery of hostages. The emperor then marched against the Limigantes, i. e. the slaves who, in 334, had driven the Sarmatians out of their country. They used the same artifice as the Sarmatians and Quadi had done, coming in great numbers to the emperor under pretence of submission, but prepared to fall upon him unexpectedly. Observing their manner, and distrusting them, he caused his troops to surround them insensibly while he was speaking. The Limigantes then displeased with the conditions he offered them, laid their hands on their swords; on which they were attacked by the soldiers; and, finding it impossible to escape, made with great fury towards the tribunal, where they were cut in pieces. After this the emperor ravaged their territories, and obliged them to quit the country, which was then restored to the Sarmatians. This year a haughty embassy arrived from Sapor king of Persia, with a letter, in which that monarch styled himself 'king of kings, brother of the sun and moon,' &c., acquainting the emperor that, though he might insist on having all the countries beyond the Strymon in Macedon

delivered up to him, he would be contented with Armenia and Mesopotamia, which had been unjustly taken from his grandfather Narses; adding that, unless justice was done him, he would assert his right by arms. Constantius wrote in answer that as he had maintained the Roman dominions in their full extent when he was possessed only of the east, he could not suffer them to be curtailed now he was master of the whole empire. In a few days, however, he sent another message with presents; being desirous at least to put off the war till he had secured the northern provinces. This embassy proved unsuccessful, as did also another which was sent soon after.

In 359 Julian continued his endeavour for relieving Gaul; erected magazines in different places; visited the cities which had suffered most, and gave orders for repairing the fortifications. He then crossed the Rhine, and pursued the war in Germany with such success that the barbarians submitted to his own terms. In the mean time the emperor, having received intelligence that the Limigantes had quitted the country in which he had placed them, hastened to the banks of the Danube, in order to prevent their entering Pannonia, and nearly extirpated them. This year Constantius instituted a court of inquisition against all those who consulted heathen oracles. Paulus Catena, a cruel informer, was despatched into the east to prosecute them; and Modestus, equally remarkable for his cruelty, was appointed judge. His tribunal was erected at Scythopolis in Palestine, whither persons of both sexes, and of every rank and condition, were daily dragged in crowds from all parts, and torn in pieces by racks, or publicly executed. In 359 Sapor king of Persia began hostilities. During the campaign, however, he made little progress; having only taken two Roman forts, and destroyed the city of Amida, the siege of which is said to have cost him 30,000 men. On the first news of the invasion, Constantius had sent Ursicinus into the east; but his enemies prevented him from receiving the supplies necessary for carrying on the war. On his return, he was charged with the loss of Amida, and all the disasters that had happened during the campaign. Two judges were appointed to enquire into his conduct; but they left the matter doubtful. On this Ursicinus was so much exasperated that he appealed to the emperor, and, in the heat of passion, let fall some unguarded expressions, for which he was deprived of all his employments. Constantius resolved to march next year in person against the Persians, and wrote to Julian to send him part of his forces, without considering that by so doing he would have left Gaul exposed. Julian resolved to comply with the emperor's orders, but to abdicate the dignity of Cæsar, that he might not be blamed for the consequences. Accordingly he suffered the best soldiers to be draughted: they were, however, unwilling to leave him, and at last proclaimed him emperor. Whether this was done absolutely against Julian's consent is uncertain; but he wrote to the emperor, and persuaded the whole army also to send a letter, in which they acquainted Constantius with what had happened,

and entreated him to acknowledge Julian as his partner. But this was positively refused by Constantius, who began to prepare for war. Julian, then, causing his troops to take an oath of allegiance to himself, with surprising expedition made himself master of the whole of Illyricum, and the important pass separating that country from Thrace. Constantius was thunder-struck with this news; but, hearing that the Persians had retired, he marched with all his forces against his competitor. On his arrival at Tarsus in Cilicia, however, he was seized with a feverish distemper, occasioned chiefly by perplexity of mind; and, at the foot of Mount Taurus, breathed his last, on the 13th of November, 361, in the forty-fifth year of his age.

JULIAN.—By the death of Constantius, Julian became master of the empire without a rival. He had been educated in the Christian religion; but, having secretly apostatized long before, as soon as he saw himself master of Illyricum, he openly caused the temples of the gods to be reopened. When the messengers arrived at Naissus in Illyricum, to acquaint him with Constantius's death, they found him consulting the entrails of victims concerning the event of his journey: and he immediately set out for Constantinople. At Heraclea he was met by almost all the inhabitants of this metropolis, into which he made his public entry on the 11th of December 361, attended by the senate, magistrates, and nobility. Here he was again declared emperor by the senate; and, as soon as that ceremony was over, caused the obsequies of Constantius to be performed with great pomp. His first care was to enquire into the conduct of the late emperor's ministers. Several of these, having been found guilty of enormous crimes, were condemned and executed; particularly a noted informer Catena, and another named Apodanus, were sentenced to be burnt alive. Along with these, however, was put to death Ursula, a man of unexceptionable character, to whom Julian himself was highly indebted. He next set about reforming the court: reduced the officers called *agentes in rebus*, from 10,000 to seventeen; and discharged thousands of cooks, barbers, &c., who by their large salaries drained the exchequer. The *curiosi*, whose office it was to inform the emperor of what had passed in the different provinces, were all discharged. Thus he was enabled to ease the people of the heavy taxes with which they were loaded, by abating a fifth part of them throughout the empire. Julian next invited to court the philosophers, inagicians, &c., from all parts; but did not raise any persecution against the Christians. On the contrary, he recalled from banishment the orthodox bishops who had been exiled during the former reign; with a design, however, as is observed both by the Christian and Pagan writers, to sow dissensions in the church. As the Persians were now preparing to carry on the war with vigor, Julian resolved to march against them in person. But before he set out he formed at Constantinople a large harbour to shelter the ships from the south wind, built a magnificent porch leading to it, and erected a fine library, in which he lodged his books. In May 362 he de-

parted for Antioch; and on the 1st of January, 363, renewed in that city the sacrifices of Jupiter for the safety of the empire. During his stay he continued his preparations for the Persian war, consulting the oracles, aruspices, magicians, &c. Those of Delphi, Delos, and Dodona, assured him of victory. The aruspices, indeed, and most of his courtiers and officers, did all that lay in their power to divert him from his expedition; but the flattering answers of the oracles, and the desire of adding the Persian monarch to the many kings he had already seen humbled at his feet, prevailed. Many nations sent deputies offering their assistance; whose offers he rejected, telling them that the Romans were to assist their allies, but stood in no need of any assistance from them. He likewise rejected, and in a very stern manner, the offers of the Saracens; answering, when they complained of his stopping the pension paid them by other emperors, that a warlike prince had steel, but no gold. However, he wrote to Arsaces, king of Armenia, enjoining him to keep his troops in readiness to execute the orders he should transmit to him. Julian now sent orders to his troops to cross the Euphrates, designing to enter the enemy's country before they had notice of his march; and proceeded himself to Litarba. Thence he went to Beræa, where he halted a day, and exhorted the council to restore the worship of the gods; as he did also at Batnæ; and was well pleased with the inhabitants for having before his arrival restored that worship. He now pursued his journey to Hierapolis, the capital of Euphratesiana, which he reached on the 9th of March. As he entered this city, fifty of his soldiers were killed by the fall of a porch. He left Hierapolis on the 13th of March; and, having passed to Euphrates on a bridge of boats, came to Batnæ a city of Osrhoene, about ten leagues from Hierapolis. From Batnæ he proceeded to Carrhæ; where, in the famous temple of the moon, it is said he sacrificed a woman. While he continued in this city, he received advice that a party of the enemy's horse had broken into the Roman territories: on which he resolved to leave an army in Mesopotamia, while he advanced on the other side of the country into the Persian dominions. This army consisted, according to some, of 20,000, others say of 30,000, chosen troops. It was commanded by Procopius, and Sebastian, a famous Manichean who had been governor of Egypt. These two were to join Arsaces king of Armenia, to lay waste the plains of Media, and meet the emperor in Assyria. To Arsaces Julian himself wrote, threatening to treat him as a rebel if he did not execute the orders given him; and telling him that the God he adored would not be able to screen him from his indignation. There were two roads leading from Carrhæ to Persia; the one to the left by Nisibis; the other to the right through Assyria, along the banks of the Euphrates. Julian chose the latter, but caused magazines to be erected on both roads; and, after having viewed his army, set out on the 25th of March. He passed the Abora, which separated the Roman and Persian dominions, near its conflux with the Euphrates; after which he broke down

the bridge, that his troops might not desert. As he proceeded on his march, a soldier and two horses were struck dead by lightning; and a lion of an extraordinary size was despatched by the soldiers. These omens occasioned great disputes among the aruspices. Having passed the Abora, Julian entered Assyria, which he laid waste; a step which was judged very impolitic. As he met with no army to oppose him, he advanced to the walls of Ctesiphon, the metropolis of the Parthian empire; and here, having caused the canal to be cleared, formerly dug by Trajan, he conveyed his fleet to the banks of the Tigris, passed that river, and drove the enemy into the city with the loss of a great number of men: he himself, in the mean time, losing only seventy-five. Julian had now advanced so far into the enemy's country that he found it necessary to think of a retreat, as it was impossible for him to winter there. For this reason he made no attempt on Ctesiphon, but began to march back along the banks of the Tigris. In the mean time the king of Persia was assembling a formidable army; but, desirous of putting an end to so destructive a war, sent very advantageous proposals of peace to Julian. These he imprudently rejected; and soon after, deceived by treacherous guides, quitted the river, and entered into an unknown country totally laid waste by the enemy. A still worse step he was persuaded to take by these guides, viz. to burn his fleet, lest it should fall into the hands of the enemy. As soon as it was set on fire, the whole army cried out that the emperor was betrayed, and that the guides were traitors. Julian ordered them immediately to be put on the rack, upon which they confessed the treason; but it was too late. The fleet was in flames, and no part was saved except twelve vessels designed to be made use of in the building of bridges. The emperor thus finding himself in a strange country, and his army greatly dispirited, called a council, in which it was resolved to proceed for Corduene south of Armenia. But they had not proceeded far when they were met by the king of Persia, at the head of a very numerous army. Several sharp encounters took place; and, though the Persians were always defeated, the Romans reaped no advantages, being reduced to the last extremity for want of provisions. In one of these attacks, when the Romans were suddenly assailed, the emperor, eager to repulse the enemy, hastened to the field without his armor when he received a mortal wound by a dart, which pierced through his side to his liver. Of this wound he died the same night, 26th of June, 363, in the thirty-second year of his age, after having reigned scarcely twenty months.

JOVIAN.—As Julian had declined naming any successor, the army unanimously chose Jovian, a very able commander, whose father had lately resigned the post of comes domesticorum. The valor and experience of Jovian, however, were not sufficient to extricate the Roman army from the difficulties in which they had been plunged. Famine raged in the camp to such a degree that not a single man would have been left had not the Persians unexpectedly sent proposals of peace, which were received with great joy. The

terms were, that Jovian should restore to the Persians the five provinces which had been taken from them in the reign of Dioclesian, with several castles, and the cities of Nisibis and Singara. After the conclusion of the treaty, Jovian pursued his march homeward. When he arrived at Antioch he revoked all the laws made by Julian against Christianity; espoused the cause of the orthodox Christians against the Arians; and recalled all those who had been formerly banished, particularly Athanasius. But he did not live to make any great alterations, or even to visit his capital as emperor; for in his way to Constantinople he was found dead in his bed, on the 17th of February, 364, in his thirty-third year, when he had reigned only seven months and forty days.

VALENTINIAN AND VALENS. — Valentinian was now chosen emperor. Immediately on his accession, the soldiers with great clamor required him to choose a colleague. In a few days he named his brother Valens; and, as the empire was threatened on all sides with an invasion of the barbarous nations, he thought proper to divide it. This famous partition was made at Mediana in Dacia: when Valens had for his share the whole of Asia, Egypt, and Thrace; and Valentinian all the west; that is, Illyricum, Italy, Gaul, Spain, Britain and Africa. After this Valens returned to Constantinople, where the beginning of his reign was disturbed by the revolt of Procopius, a relation of Julian. On the death of that emperor, he had fled into Taurica Chersonesus for fear of Jovian; but returned in disguise, where, having gained over Eugenius, a eunuch of great wealth, disgraced by Valens, and some officers who commanded the troops sent against the Goths, he got himself proclaimed emperor. At first he was joined only by the lowest of the people, but at length he was acknowledged by the city of Constantinople. On the news of this revolt, Valens despatched some troops against the usurper; but these were gained over, and Procopius continued for some time to gain ground. It is probable he would finally have succeeded, had he not become so much elated with his good fortune that he grew tyrannical. In consequence of this he was first abandoned by some of his principal officers; and soon after defeated in battle, taken prisoner, and put to death. This revolt produced a war betwixt Valens and the Goths. The latter, having been solicited by Procopius, had sent 3000 men to his assistance. On hearing the news of the usurper's death, they marched back: but Valens detached against them a body of troops, who took them all prisoners. Athanaric, king of the Goths, expostulated with Valens; but that emperor proving obstinate, both parties prepared for war. In 367 and 369 Valens gained great advantages over his enemies: and obliged them to sue for peace. The rest of this reign contains nothing remarkable, except the cruelty with which Valens persecuted the orthodox clergy. The latter sent eighty of their number to lay their complaints before him; but he, instead of giving them any relief, determined to put them all to death. A persecution was also commenced against the magicians, which occasioned the de-

struction of many innocent persons; for books and persons of all ranks were seized with such terror at his severity on this point, that many burnt their libraries, lest books of magic should have been secretly conveyed into them. In 373 the Goths, whom Valens had admitted into Thrace, advanced from that province to Macedon and Thessaly. They afterwards blocked up Constantinople, plundered the suburbs, and at last totally defeated and killed the emperor. The day after the battle, hearing that an immense treasure was lodged in Adrianople, the barbarians laid siege to that place: but were repulsed with great slaughter. Great numbers of them after this were cut in pieces by the Saracens, whom Maria their queen had sent to the assistance of the Romans; so that they were obliged to abandon this design likewise, and retire from the neighbourhood of the capital. In the beginning of the reign of Valentinian the province of Libya Tripolitana was grievously oppressed by the barbarians of the desert, and almost equally so by Romanus its own governor. His conduct was so exceedingly oppressive that the inhabitants sent a deputation to Valentinian, complaining of their unhappy situation, and desiring redress. Palladius was accordingly sent to inquire into the state of the province; but he made a false report to the emperor, and thus the unhappy province was left a prey to the merciless invaders and rapacious governor. During the rest of this reign the barbarians continued their inroads into the empire. Valentinian expired in the year 375, the fifty-fifth of his age, and twelfth of his reign.

GRATIAN AND THEODOSIUS. — At the death of Valens the eastern and western empires again fell into the hands of a single person. This was Gratian, who had held the empire of the west after the death of Valentinian. He repulsed many barbarous nations who threatened the empire with dissolution; but, finding himself pressed on all sides, he, on the 19th of January 379, declared Theodosius his partner in the empire, and committed to his care all the provinces which had been governed by Valens. Theodosius is greatly extolled by historians for his extraordinary valor and piety; and has even been honored with the surname of the Great. From the many persecuting laws, however, made in his time, it would seem that his piety was misguided; and that, if he was naturally humane and compassionate, superstition often obscured these virtues. He certainly was a man of great military talent, and the state of the empire called for all his abilities. The provinces of Dacia, Thrace, and Illyricum, were already lost; the Goths, Taisali, Alans, and Huns, were masters of the greatest part of these provinces, and had ravaged and laid waste the rest. The Iberians, Armenians, and Persians, were in arms, and ever ready to take advantage of the distracted state of the empire. The few soldiers who had survived the late defeat kept within the strong holds of Thrace. In the year 379 many victories are said to have been obtained by Theodosius; but the accounts of these are so contradictory that no stress can be laid upon them. In February 380 he was seized with a dangerous malady, so that Gratian was obliged to carry on the war

alone. Apprehending that the neighbouring barbarians might break into some of the provinces, he concluded a peace with the Goths, which was confirmed by Theodosius on his recovery. But they had no sooner heard that Gratian had left Illyricum, than they passed the Danube, and, breaking into Thrace and Pannonia, advanced as far as Macedon, destroying all with fire and sword. Theodosius, drawing together his forces, marched against them, and gained a complete victory. In 381 Athanaric, the most powerful of all the Gothic princes, being driven out by a faction at home, recurred to Theodosius, by whom he was received with great tokens of friendship. He went out to meet him, and attended him with a numerous retinue into the city. The Gothic prince died the same year; and Theodosius caused him to be buried after the Roman manner, with such pomp and solemnity that the Goths, who attended him in his flight, returned home with a resolution never more to molest the Romans. Nay, out of gratitude to the emperor, they took upon them to guard the banks of the Danube, and prevent the empire from being invaded. In 383 Maximus revolted against Gratian in Britain; and in the end murdered him, and assumed the empire of the West himself. Gratian had now divided his dominions with his brother Valentinian II., whom he allowed to reign in Italy and West Illyricum, reserving the rest to himself. Maximus therefore, immediately after his usurpation, sent deputies to Theodosius, assuring him that he had no designs on the dominions of Valentinian. As Theodosius at that time found himself in danger from the barbarians, he not only therefore forebore to attack Maximus, but even acknowledged him for his partner in the empire. It was not long, however, before the ambition of the usurper prompted him to break his promise. In 387 he passed the Alps on a sudden; and, meeting with no opposition, marched to Milan, where Valentinian usually resided. The young prince fled to Aquileia; and thence to Thessalonica, to implore the protection of Theodosius; who, in answer, informed him that he was not surprised at the usurper's progress, as he had protected, and Valentinian had persecuted, the orthodox Christians. At last he prevailed on the young prince to renounce Arianism, and promised to assist him with all the forces of the east. He first, however, sent messengers to Maximus, desiring him to restore the provinces he had taken from Valentinian, and content himself with Gaul, Spain, and Britain. But the usurper would hearken to no terms. This year he besieged and took Aquileia, Quadera, Bononia, Mutina, Rhegium, Placentia, and many other cities in Italy. In 388 he was acknowledged in Rome, and in all the provinces of Africa. Theodosius, therefore, finding a war inevitable, made preparations for it. His army consisted chiefly of Goths, Huns, Alans, and other barbarians, whom he was glad to take into the service, to prevent their raising disturbances on the frontiers. He defeated Maximus in two battles, took him prisoner, and put him to death; and, the usurper having left his son Victor in Gaul, the emperor despatched against him Arbogastes, who took

him prisoner, dispersed his troops, and put him also to death. This victory was used by Theodosius with great moderation. In 389 he took a journey to Rome, and abolished idolatry. The next year was remarkable for the destruction of the celebrated temple of Serapis in Alexandria; which, according to the description of Ammianus Marcellinus, surpassed all others in the world, that of Jupiter Capitolinus excepted. Not satisfied with the destruction of the Alexandrian temples, the zealous Theophilus, bishop of Alexandria, encouraged the people to pull down all the other temples, chapels, &c., set apart for the pagan worship, and the statues of the gods to be either burnt or melted. Of the innumerable statues which at that time were in Egypt, he spared but one, viz. that of an ape, to expose the Pagan religion to ridicule. On his return to Constantinople, Theodosius ordered such temples as were yet standing to be thrown down, and the Arians to be every where driven out of the cities.

In 392 Valentinian II. was treacherously murdered by Arbogastes his general; who, instead of seizing on the sovereignty himself, chose to confer it upon Eugenius. This new usurper, though a Christian, was greatly favored by the Pagans, who were all apprized that he only bore the title of emperor, while the whole power lodged in Arbogastes who pretended to be greatly attached to their religion. The aruspices informed him that he was destined to the empire of the whole world; that he would soon gain a complete victory over Theodosius, who was as much hated as Eugenius was beloved by the gods, &c. But, though Eugenius seemed to favor the Pagans, yet he wrote to St. Ambrose. The holy man did not answer his letter till he was pressed by some friends to recommend them to the new prince; and then he wrote to this infamous usurper with all the respect due to an emperor. Soon after his accession, Eugenius sent deputies to Theodosius; and they are said to have been received by him in a very gracious manner. He did not, however, enter into any alliance with him, but immediately began his military preparations. In 394 he set out from Constantinople, and was at Adrianople on the 15th of June that year. He bent his march through Dacia, and the other provinces between Thrace and the Julian Alps, with a design to force the passages of these mountains, and break into Italy before the army of Eugenius was in a condition to oppose him. On his arrival at the Alps, he found these passes guarded by Flavianus, prefect of Italy, at the head of a considerable body of Roman troops. These were utterly defeated by Theodosius, who thereupon crossed the Alps and advanced into Italy. He was soon met by Eugenius; and a bloody battle ensued, without any decisive advantage on either side. The next day the emperor led his troops in person against the enemy, utterly defeated them, and took their camp. Eugenius was taken prisoner by his own men, and brought to Theodosius, who reproached him with the murder of Valentinian, with the calamities he had brought on the empire by his unjust usurpation, and with the putting his confidence in Hercules, and

not in the true God; for on his chief standard he had displayed the image of that fabulous hero. Eugenius begged earnestly for his life; but, while he lay prostrate at his feet, his own soldiers cut off his head, and, carrying it about on the point of a spear, showed it to those in the camp who had not yet submitted. At this they were thunderstruck; but being informed that Theodosius was ready to receive them into favor they threw down their arms. Arbogastes, after this, despairing of pardon, fled to the mountains; but being informed that diligent search was made for him killed himself. His children, and those of Eugenius, took sanctuary in churches; but the emperor restored to them their paternal estates, and raised them to considerable employments. Soon after this, Theodosius appointed his son Honorius emperor of the west, assigning him for his share, Italy, Gaul, Spain, Africa, and West Illyricum. The next year he was seized with a dropsy, and made his will; by which he bequeathed the empire of the East to Arcadius, and confirmed Honorius in the possession of the West. He likewise confirmed the pardon he had granted to all those who had borne arms against him, and remitted a tribute which had proved very burdensome to the people. He died at Milan on the 17th January 395, in the sixteenth year of his reign and fiftieth of his age.

PART IV.

THE WESTERN EMPIRE.

We now trace, distinctly, the regular and rapid decline of the Western Empire. The death of Theodosius gave the finishing stroke to its prosperity; his son Honorius, to whom he left this part of the empire, being possessed of no abilities. The barbarians appear to have been abundantly sensible of this. Theodosius died in January; and before spring the Goths were in arms. They were now headed by an experienced commander, their celebrated king ALARIC (see that article), who would have proved formidable even in better times of the empire. He first overran Greece: Athens, Corinth, Argos, and Sparta, yielding without resistance; and the pass of Thermopylæ being betrayed to him. At last, in 397, he was opposed by Stilicho, the general of Honorius, a man of great experience in war, who defeated him with great loss. Alaric, however, found means to conclude a treaty with the ministers of Constantinople. In a subsequent conflict in Italy the wife of Alaric was taken, with all the wealth which had been amassed in plundering Greece. The victory, however, was not so decisive but that Alaric continued still formidable; and Stilicho chose rather to conclude a treaty with him. Alaric, who was not very scrupulous in his observance of this treaty, attempted in his retreat to make himself master of Verona; but Stilicho, again coming up with him near that place, gave him a third terrible defeat: after which he effected a retreat out of Italy, but not without the greatest difficulty and danger.

Italy being thus delivered, Honorius entered Rome in triumph, having Stilicho along with him in the triumphal chariot. Soon after, however, the emperor was obliged to leave the me-

tropolis and retire to Ravenna, to secure himself from the barbarians, who now broke in upon the empire on all sides. Gibbon accounts for it from a supposed revolution in the north-east parts of China. 'About four years,' he says 'after the victorious Toulon had assumed the title of khan of the Gougen, another barbarian, the haughty Rhodogast, or Radagaisus, marched from the northern extremities of Germany almost to the gates of Rome, and left the remains of his army to achieve the destruction of the west. The Vandals, the Suevi, and the Burgundians, formed the strength of this mighty host: but the Alani, who had found an hospitable reception in their new seats, added their active cavalry to the heavy infantry of the Germans; and the Gothic adventurers crowded so eagerly to the standard of Radagaisus, that by some historians he has been styled the king of the Goths: 12,000 warriors, distinguished above the vulgar by their noble birth or their valiant deeds, glittering in the van; and the whole multitude, which was not less than 200,000 fighting men might be increased by the accession of women, of children, and of slaves to the amount of 400,000 persons. This formidable emigration issued from the same coast of the Baltic which had poured forth the myriads of the Cimbri and Teutons to assault Rome and Italy in the vigour of the republic. After the departure of those barbarians, their native country, which was marked by the vestiges of their greatness, long ramparts, and gigantic moles, remained during some ages a vast and dreary solitude; till the human species was renewed by the powers of generation; and the vacancy was filled up by the influx of new inhabitants. The safety of Rome was intrusted to the counsels and the sword of Stilicho; but such was the feeble and exhausted state of the empire that it was impossible to restore the fortifications of the Danube, or to prevent, by a vigorous effort, the invasion of the Germans. The hopes of the vigilant minister of Honorius were confined to the defence of Italy. He once more abandoned the provinces; recalled the troops; pressed the new levies, which were rigorously exacted, and pusillanimously eluded; employed the most efficacious means to arrest or allure the deserters; and offered the gift of freedom, and of two pieces of gold, to all the slaves who would enlist. By these efforts he painfully collected from the subjects of a great empire an army of 30,000 or 40,000 men; which, in the days of Scipio and Camillus, would have been instantly furnished by the free citizens of the territory of Rome. The thirty legions of Stilicho were reinforced by a large body of barbarian auxiliaries; the faithful Alani were personally attached to his service; and the troops of Huns and of Goths, who marched under the banners of their native princes, Hullen and Sarus, were animated by interest and resentment to oppose the ambition of Radagaisus. The king of the confederate Germans passed, without resistance, the Alps, the Po, and the Appennines: leaving on one hand the inaccessible palace of Honorius, securely buried among the marshes of Ravenna; and, on the other, the camp of Stilicho, who had fixed his head-quar-

ters at Ticinum, or Pavia, but who seems to have avoided a decisive battle till he had assembled his distant forces. Many cities of Italy were pillaged, or destroyed; and the siege of Florence by Radagaisus is one of the earliest events in the history of that celebrated republic, whose firmness checked and delayed the unskilful fury of the barbarians. The senate and people trembled at their approach within 180 miles of Rome; and anxiously compared the danger which they had escaped with the new perils to which they were exposed. Alaric was a Christian, and a soldier, the leader of a disciplined army; who understood the laws of war, who respected the sanctity of treaties, and who had familiarly conversed with the subjects of the empire in the same camps and the same churches. The savage Radagaisus was a stranger to the manners, the religion, and even the language of the civilised nations of the south. The fierceness of his temper was exasperated by cruel superstition; and it was universally believed that he had bound himself by a solemn vow to reduce the city into a heap of stones and ashes, and to sacrifice the most illustrious of the Roman senators on the altars of those gods who were appeased by human blood. Florence was reduced to the last extremity. On a sudden they beheld from their walls the banners of Stilicho, who advanced with his united forces to the relief of the faithful city; and who soon marked that fatal spot for the grave of the barbarian host. The apparent contradictions of those writers who variously relate the defeat of Radagaisus may be reconciled without offering much violence to their respective testimonies. Their extravagant assertion that not a single soldier of the Christian army was killed, or even wounded, may be dismissed; but the rest of the narrative of Augustin and Orosius is consistent with the state of the war and the character of Stilicho. Conscious that he commanded the last army of the republic, his prudence would not expose it in the open field to the headstrong fury of the Germans. The method of surrounding the enemy with strong lines of circumvallation, which he had twice employed against the Gothic king, was repeated on a larger scale, and with more considerable effect. The example of Cæsar must have been familiar to the most illiterate of the Roman warriors; and the fortifications of Dyrrhachium, which connected twenty-four castles by a perpetual ditch and rampart of fifteen miles, afforded the model of an intrenchment, which might confine and starve the most numerous host of barbarians. The imprisoned multitude of horses and men were gradually destroyed by famine, rather than by the sword; but the Romans were exposed, during the progress of such an extensive work, to the frequent attacks of an impatient enemy. The despair of the hungry barbarians would precipitate them against the fortifications of Stilicho; the general might sometimes indulge the ardour of his brave auxiliaries, who eagerly pressed to assault the camp of the Germans; and these various incidents might produce the sharp and bloody conflicts which dignify the narrative of Zosimus, and the Chronicles of Prosper and Marcellinus.

A seasonable supply of men and provisions had been introduced into the walls of Florence; and the famished host of Radagaisus was in its turn besieged. The proud monarch of so many warlike nations, after the loss of his bravest warriors, was reduced to confide either in the faith of a capitulation, or in the clemency of Stilicho. But the death of the royal captive, who was ignominiously beheaded, disgraced the triumph of Rome and of Christianity; and the short delay of his execution was sufficient to brand the conqueror with the guilt of cool and deliberate cruelty. The famished Germans who escaped the fury of the auxiliaries were sold as slaves, at the contemptible price of as many single pieces of gold; but the difference of food and climate swept away great numbers of those unhappy strangers; and it was observed that the inhuman purchasers, instead of reaping the fruit of their labors, were soon obliged to add to it the expense of interring them. Stilicho informed the emperor and the senate of his success; and deserved a second time the glorious title of Deliverer of Italy.

'The fame of Stilicho's victory,' continues this historian, 'has encouraged a vain persuasion that the whole army, or rather nation, of Germans, who migrated from the shores of the Baltic, miserably perished under the walls of Florence. Such indeed was the fate of Radagaisus himself, of his brave and faithful companions, and of more than one-third of the various multitude of Sueves and Vandals, of Alani and Burgundians, who adhered to the standard of their general. The union of such an army might excite our surprise, but the causes of separation are obvious and forcible; they were the pride of birth, the insolence of valor, the jealousy of command, the impatience of subordination, and the obstinate conflict of opinions, of interests, and of passions, among so many kings and warriors, who were untaught to yield or to obey. After the defeat of Radagaisus, two parts of the German host, which must have exceeded the number of 100,000 men, still remained in arms between the Appenines and the Alps, or between the Alps and the Danube. It is uncertain whether they attempted to revenge the death of their general: but their irregular fury was soon diverted by the prudence and firmness of Stilicho, who opposed their march, and facilitated their retreat; who considered the safety of Rome and Italy as the great object of his care, and who sacrificed with too much indifference the wealth and tranquillity of the distant provinces. The barbarians acquired from the junction of some Pannonian deserters the knowledge of the country and of the roads, and the invasion of Gaul, which Alaric had defined, was executed by the remains of the great army of Radagaisus. When the limits of Gaul and Germany were shaken by the northern emigration, the Franks bravely encountered the single force of the Vandals; who had again separated their troops from the standard of their barbarian allies. They paid the penalty of their rashness: and 20,000 Vandals, with their king Godegiselus, were slain in the field of battle. The whole people must have been extirpated, if the squadrons of the

Alani, advancing to their relief, had not trampled down the infantry of the Franks; who, after an honorable resistance, were compelled to relinquish the unequal contest. The victorious confederates pursued their march; and on the last day of the year, in a season when the waters of the Rhine were most probably frozen, they entered without opposition the defenceless provinces of Gaul. This memorable passage of the Suevi, the Vandals, the Alani, and the Burgundians, who never afterwards retreated, may be considered as the fall of the Roman empire in the countries beyond the Alps; and the barriers which had so long separated the savage and the civilised nations of the earth were from that fatal moment levelled with the ground. While the peace of Germany was secured by the attachment of the Franks and the neutrality of the Alemanni, the subjects of Rome, unconscious of their approaching calamities, enjoyed a state of quiet and prosperity which had seldom blessed the frontiers of Gaul. This scene of peace and plenty was suddenly changed into a desert, and the prospect of the smoking ruins could alone distinguish the solitude of nature from the desolation of man. The flourishing city of Mentz was surprised and destroyed; and many thousand Christians were inhumanly massacred in the church. Worms perished after a long and obstinate siege: Strasburg, Spire, Rheims, Tournay, Arras, Amiens, experienced the most cruel oppression of the German yoke; and the consuming flames of war spread from the banks of the Rhine over the greatest part of the seventeen provinces of Gaul. That rich and extensive country, as far as the Ocean, the Alps, and the Pyrenees, was delivered to the barbarians, who drove before them in a promiscuous crowd the bishop, the senator, and the virgin, laden with the spoils of their houses and altars.

In the midst of these calamities, a revolt happened in Britain, where one Constantine, a common soldier, was raised to the imperial throne, merely for the sake of his name. He governed Britain with great prosperity; passed over into Gaul and Spain, the inhabitants of which submitted without opposition, being glad of any protector whatever from the barbarians. Honorius, incapable of defending the empire, or repressing the revolt, was obliged to acknowledge him for his partner in the empire.

In the mean time Alaric, with his Goths, threatened a new invasion, unless he was paid a certain sum of money; and Stilicho, having advised a compliance with this demand was accused, after all his services, of corrupt motives, and put to death. The money, however, not being readily sent, Alaric laid siege to Rome, and would have taken it, had not the emperor finally complied with his demand. The ransom of the city was 5000 lbs. of gold, 30,000 of silver, 4000 silk garments, 3000 skins dyed purple, and 3000 lbs. of pepper. On this occasion, the heathen temples were stripped of their remaining ornaments, and among others of the statue of Valor; which the Pagans did not fail to interpret as a presage of the speedy ruin of the state. Alaric, having received this treasure, departed for a short time; but soon after he again blocked up the city with a nume-

rous army; and again an accommodation with Honorius was set on foot. However, Rome was a third time besieged, and at last taken and plundered. Procopius says that there was not in the whole city one house left entire; and both St. Jerome and Philostorgius assert that the great metropolis of the empire was reduced to a heap of ashes and ruins. Though many of the Goths, pursuant to the orders of their general, refrained from shedding the blood of such as made no resistance; yet others more cruel and blood-thirsty, massacred all they met: so that in some quarters the streets were seen covered with dead bodies, and swimming in blood. However, not the least injury was offered to those who fled to the churches; nay the Goths themselves conveyed thither, as to places of safety, such as they were desirous should be spared. Many of the statues of the gods, that had been left entire by the emperors as excellent pieces of art, were on this occasion destroyed, either by the Goths, who, though mostly Arians, were zealous Christians, or by a dreadful storm of thunder and lightning which fell at the same time upon the city, as if it had been sent on purpose to complete with them the destruction of idolatry. Some writers, however, affirm that the city suffered very little at this time, not so much as when it was taken by Charles V. Alaric did not long survive the taking of Rome, being cut off by a violent fit of sickness in the neighbourhood of Rhegium.

After his death the affairs of Honorius seemed a little to revive by the defeat and death of Constantine and some other usurpers; but the provinces of Gaul, Britain, and Spain, were now almost entirely occupied by barbarians, in which state they continued till the death of Honorius, which happened in the year 423, after an unfortunate reign of twenty-eight years.

VALENTINIAN III.—After some usurpations which took place on his death, his nephew Valentinian III. was declared emperor of the west, and his mother, Placidia, regent during his minority. He was scarcely seated on the throne, when the empire was attacked by the Huns under the celebrated ATTILA (see that article). The empress then had two celebrated generals, Bonifacius and Aetius; who by their union might have saved the empire; but, unhappily, through the treachery of Aetius, Bonifacius revolted, and a civil war ensued. Aetius, notwithstanding his treachery, was pardoned, and put at the head of the forces. He defended it against Attila with great spirit and success, notwithstanding the deplorable situation of affairs, till he was murdered by Valentinian with his own hand. In the mean time, the provinces, except Italy itself, were totally over-run by the barbarians. Genseric, king of the Vandals, ravaged Africa and Sicily; the Goths, Suevians, Burgundians, &c., had taken possession of Gaul and Spain; and the Britons were oppressed by the Scots and Picts, so that they were obliged to call in the Saxons to their assistance. In the year 455 Valentinian was murdered by one Maximus, whose wife he had ravished.

MAXIMUS immediately assumed the empire; but felt such violent anxieties that he designed to resign it, and fly out of Italy, to enjoy the

quiet of a private life. However, being dissuaded from this by his friends, and his own wife dying soon after, he forced the empress Eudoxia to marry him. Eudoxia, who had tenderly loved Valentinian, provoked beyond measure at being married to his murderer, invited Genseric king of the Vandals into Italy. This proved a most fatal scheme; for Genseric immediately appeared before Rome; a violent tumult ensued, in which Maximus lost his life; and the city was taken and plundered by Genseric, who carried off what had been left by the Goths. A vessel was loaded with costly statues; half the covering of the capitol, which was of brass plated over with gold; sacred vessels enriched with precious stones; and those which had been taken by Titus out of the temple of Jerusalem; all of which were lost with the vessel in its passage to Africa.

MARJORIANUS.—Nothing could now be more deplorable than the state of the Roman affairs; nevertheless, the Western empire continued to exist for some few years; and even seemed to revive for a little under Marjorianus, who was declared emperor in 458. He was a man of great courage, and possessed of many other excellent qualities. He defeated the Vandals, and drove them out of Italy. With great labor he fitted out a fleet, of which the Romans had been long destitute. With this he designed to pass over into Africa; but, it being surprised and burnt by the enemy, he himself was soon after murdered by one Ricimer, a Goth, who had long governed every thing with an absolute sway. After the death of Marjorianus, Athemius was raised to the empire: but, beginning to counteract Ricimer, the latter openly revolted, and besieged and took Rome; where he committed innumerable cruelties, among the rest putting to death the emperor Anthemius, and raising one Olybius to the empire.

The transactions of Olybius's reign were very few, as he died soon after his accession. On his death Glycerius usurped the empire. He was deposed in 474, and Julius Nepos had the name of emperor. He was driven out the next year by his general Orestes, who caused his son Romulus Augustulus to be proclaimed emperor. But the following year, 476, the barbarians who served in the Roman armies, and were distinguished with the title of allies, demanded, as a reward for their services, the third part of the lands in Italy; pretending that the whole country, which they had so often defended, belonged of right to them. As Orestes refused to comply with this insolent demand, they resolved to do themselves justice, as they called it; and, openly revolting, chose one Odoacer for their leader. Odoacer was, according to Ennodius, meanly born, and only a private man in the guards of the emperor Augustulus, when the barbarians, revolting, chose him for their leader. However he is said to have been a man of uncommon ability. He marched against Orestes and his son Augustulus, who still refused to give them any share of the lands in Italy. As the Roman troops were inferior, both in number and valor, to the barbarians, Orestes took refuge in Pavia, at that time one of the best fortified cities in

Italy; but Odoacer, investing the place without loss of time, took it soon after by assault, gave it up to be plundered by the soldiers, and then set fire to it. Orestes being taken prisoner, and brought to Odoacer, he carried him to Placentia, and there caused him to be put to death on the 28th of August, the day on which he had driven Nepos out of Ravenna, and obliged him to abandon the empire. From Placentia Odoacer marched straight to Ravenna, where he found Paul, the brother of Orestes, and the young emperor Augustulus. The former he immediately hut to death; but sparing Augustulus, in consideration of his youth, he stripped him of the ensigns of the imperial dignity, and confined him to Lucullanum, a castle in Campania; where he was treated with great humanity, and allowed a handsome maintenance. Rome readily submitted to the conqueror, who immediately caused himself to be proclaimed king of Italy, but would not assume the purple. Thus failed the very name of an empire in the west. Britain had been long abandoned by the Romans; Spain was held by the Goths and Suevans; Africa by the Vandals; the Burgundians, Goths, Franks, and Alans, had erected several tetrarchies in Gaul; at length Italy itself, with its proud metropolis, which for so many ages had given law to the rest of the world, was enslaved by a contemptible barbarian, whose family, country, and nation, are not well known to this day.

PART V.

EASTERN, OR CONSTANTINOPOLITAN EMPIRE.

From the death of Theodosius to the time when the Roman empire in the west was totally destroyed by the Goths, we find little remarkable in the history of Constantinople; or during the reigns of Theodosius II., Marcian and Leo I and II., except that Leo II., who had been associated by his maternal grandfather, (Leo I.) resigned in favor of his father Zeno, whom he crowned with his own hands. When the western empire ended in Augustulus, the Eastern was usurped by Basiliscus, who had driven out Zeno the lawful emperor. Zeno fled into Isauria, where he was pursued by Illus and Trecondes, two of the usurper's generals; who, having easily defeated the few troops he had with him, forced the unhappy prince to shut himself up in a castle, which they immediately invested. But in a short time Basiliscus having become obnoxious to the people by his cruelty, avarice, and other bad qualities, his generals joined with Zeno, whom they restored to the throne. After his restoration, Zeno having got Basiliscus into his power, confined him in a castle of Cappadocia, together with his wife Zenonide, where they both perished with hunger and cold, A. D. 478, after Basiliscus had reigned about twenty months. During the time of this usurpation a fire happened at Constantinople, which consumed great part of the city, with the library containing 120,000 volumes; among which were the works of Homer, written, it is said, on the great gut of a dragon

120 feet long. Zeno was not improved by his misfortunes. He still continued the same vicious courses which had given occasion to the usurpation of Basiliscus; yet, though other conspiracies were formed against him, he had the good fortune to escape them. He engaged in a war with the Ostrogoths, in which he proved unsuccessful, and was obliged to yield the provinces of Lower Dacia and Mœsia to them. In 484 Theodoric, their king, made an irruption into Thrace, and advanced within fifteen miles of Constantinople; but the following year they retired in order to attack Odoacer king of Italy, of which country Theodoric was proclaimed king in 493. The emperor Zeno died in 491, in the sixty-fifth year of his age, and seventeenth of his reign. The Roman empire had long been on the decline, before it fell a prey to the Goths. The ancient valor and military discipline, which had rendered the Romans superior to other nations, had now greatly degenerated. But what proved of the greatest detriment was the allowing vast swarms of barbarians to settle in the different provinces, and to serve in the empire in separate and independent bodies. This had proved the immediate cause of the dissolution of the western empire; but, as it affected the eastern parts less, the Constantinopolitan empire continued for near 1000 years after the western was totally dissolved. The weak administrations of Zeno, and Anastasius I, who succeeded him, rapidly reduced the eastern empire; and it might possibly have fallen soon after the western one, had not the wise and vigorous conduct of Justin, and his partner Justinian, revived in some measure the ancient martial spirit. Justin ascended the throne in 518. In 521 he engaged in a war with the Persians, who had long been very formidable enemies. Against them he employed the famous Belisarius; but nothing remarkable happened till after the accession of Justinian.

JUSTINIAN I.—This prince was the nephew of Justin, and was by him taken as his partner in the empire in 527; the same year Justin died, in the seventy-seventh year of his age, and ninth of his reign. Justinian, being now sole master of the empire, bent his whole force against the Persians. The latter proved successful in the first engagement; but were soon after utterly defeated by Belisarius on the frontiers of Persia, and by Dorotheus in Armenia. The war continued with various success during the first five years of Justinian's reign. In the sixth a peace was concluded, stipulating, 1. That the emperor should pay the king of Persia 1000 lbs. weight of gold. 2. That both princes should restore the places they had taken during the wars. 3. That the commander of the Roman forces should no longer reside at Daras, on the Persian frontiers, but at Constantina in Mesopotamia. 4. That the Iberians, who had sided with the emperor, should be at liberty to return to their own country or stay at Constantinople. This peace, concluded in 532, was styled eternal; but proved of very short duration.

About this time happened at Constantinople one of the greatest civic tumults recorded in history. It began among the different factions in the circus, but ended in an open rebellion. The

people, highly dissatisfied with the conduct of John the præfectus prætorii, and of Trebonianus then questor, forced Hypatius, nephew to the emperor Anastasius, to accept the empire, and proclaimed him with great solemnity. As these two ministers were greatly abhorred on account of their avarice, Justinian immediately discharged them, hoping thus to appease the tumult; but this was so far from answering the purpose that the people only grew more outrageous; and, most of the senators joining them, the emperor was so much alarmed that he had thoughts of abandoning the city. But the empress Theodora persuaded him rather to part with his life than his empire, and he resolved to defend himself to the utmost. In the mean time the rebels, having attempted in vain to force the gates of the palace, carried Hypatius in triumph to the circus, where, while he was beholding the sports from the imperial throne, amidst the shouts and acclamations of the people, Belisarius, who had been recalled from Persia, entered the city with a considerable body of troops. Being now apprised of the usurpation of Hypatius, he marched straight to the circus; fell sword in hand upon the disarmed multitude; and, with the assistance of a band of Heruli, headed by Mundus, governor of Illyricum, cut about 30,000 of them in pieces. Hypatius the usurper, and Pompeius, another nephew of Anastasius, were taken prisoners, and carried to the emperor, by whose orders they were both beheaded, and their bodies cast into the sea. Their estates were confiscated with those of such senators as had joined with them; but the emperor caused great part of their lands and effects to be afterwards restored, together with their honors and dignities, to their children. Justinian, having now no other enemy to contend with, turned his arms against the Vandals in Africa, and the Goths in Italy; both which provinces he recovered out of the hands of the barbarians. But before Belisarius had time to re-establish fully the Roman power in Italy, he was recalled to carry on the war against Cosroes king of Persia, who, regardless of the late treaty, entered the Roman dominions at the head of a powerful army. The same year a new peace was concluded upon the following conditions:— 1. That the Romans should, within two months, pay to the Persian king 5000 lbs. weight of gold, and an annual pension of 500 lbs. 2. That the latter should relinquish all claim to the fortress of Daras, and maintain a body of troops to guard the Caspian gates, and prevent the barbarians from breaking into the empire. 3. That upon payment of that sum Cosroes should immediately withdraw his troops from the Roman dominions. The treaty being signed, and the stipulated sum paid, Cosroes began to march back again; but by the way plundered several cities. Justinian hereupon resolved to renew the war with vigor; but had scarcely for that purpose despatched Belisarius into the east before he was obliged to recal him, in order to oppose the Goths, who had gained great advantages in Italy. The Persian war was carried on with indifferent success till A. D. 538, when a peace was concluded, upon the emperor again paying an immense sum to the enemy. The same year

the Huns, passing the Danube in the depth of winter, marched in two bodies for Constantinople; and, laying waste the countries through which they passed, came, without opposition, within 150 furlongs of the city. But Belisarius, marching out against them with a handful of men, put them to flight; the emperor, however, agreed to pay them an annual tribute, upon their promising to defend the empire against all other barbarians. This was the last exploit performed by Belisarius, who, on his return to Constantinople, was disgraced, stripped of his employments, and confined to his house, on pretence of a conspiracy. See BELISARIUS. In 565 a real conspiracy was formed against Justinian, which he happily escaped, and the conspirators were executed; but the emperor did not long survive, being carried off by a natural death in 566, in the thirty-ninth year of his reign.

JUSTINIAN'S SUCCESSORS, TO THE FIRST TURKISH INVASION.—During the reign of Justinian the majesty of the Roman empire seemed to revive. He recovered the provinces of Italy and Africa out of the hands of the barbarians, by whom they had been held for a number of years; but after his death they were soon lost, and the empire tended fast to dissolution. In 569 Italy was conquered by the Lombards, who held it for the space of 200 years. Some amends, however, were made for this loss by the acquisition of Persian Armenia, the inhabitants of which being persecuted on account of the Christian religion, which they professed, revolted to the Romans. This produced a war between the two nations, who continued to weaken each other, till at last the Persian monarchy was overthrown, and that of the Romans greatly reduced by the Saracens. These new enemies attacked the Romans in 632, and pursued their conquests with incredible rapidity. Within four years they reduced Egypt, Syria, and Palestine. In 648 they became masters of Mesopotamia, Phœnicia, Africa, Cyprus, Aradus, and Rhodes; and having defeated the Roman fleet, commanded by the emperor Constant II. in person, they concluded a peace on condition of keeping the vast extent of territory they had seized, and paying for 1000 nummi a-year. An expedition against the Lombards was about this time undertaken, but with very little success, a body of 20,000 Romans being almost entirely cut off by one of the Lombard generals. In 671 the Saracens ravaged several provinces, made a descent in Sicily, took and plundered the city of Syracuse, and overran the whole island, destroying every thing with fire and sword. In like manner they laid waste Cilicia; and, having passed the winter at Smyrna, entered Thrace in the winter of 672, and laid siege to Constantinople itself. Here, however, they were repulsed with great loss: but next spring they renewed their attempt, in which they met with the same bad success: many of their ships being burnt by the sea fire, as it was called, because it burnt under water; and in their return home their fleet was wrecked off the Scyllæan promontory. At last a peace was concluded for thirty years, on condition that the Saracens should retain all the provinces they had seized; and that they should pay to the emperor and his

successors 3000 pounds weight of gold, fifty slaves, and as many choice horses. This peace was scarcely concluded when the empire was invaded by the Bulgarians; who, breaking into Thrace, defeated the Roman army, and ravaged the country far and wide. Constantine IV., in 678, agreed to pay them an annual pension, rather than continue a doubtful war; and allowed them to settle in Lower Mœsia, from them called Bulgaria.

In 687 they were attacked by Justinian II., who entered their country without provocation; but they, falling suddenly upon him, drove him out, and obliged him to restore the towns and captives he had taken. In 697 Justinian was deposed; and in his exile fled to Trebelis, king of the Bulgarians, by whose aid he was restored to his throne; but, soon forgetting this favor, he invaded the country of the Bulgarians, with a design to wrest from them those provinces which he had yielded to them. In this expedition he was attended by no better success than his ingratitude deserved, his army being defeated, and himself obliged to make his escape in a vessel to Constantinople. The Bulgarians, continuing their inroads and ravages at different times, generally defeated the Romans who ventured to oppose them, till A. D. 800, the seventh of the reign of Nicephorus I., when they surprised the city of Sardica, and put the whole garrison, consisting of 6000 men, to the sword. The emperor marched against them with a considerable army; but the enemy retired at his approach; and he, instead of pursuing them, returned to Constantinople. Two years after he entered Bulgaria at the head of a powerful army, destroying every thing with fire and sword. The king offered to conclude a peace with him upon honorable terms; but Nicephorus, rejecting his proposals, continued to waste the country, destroying the cities, and putting all the inhabitants, without distinction of sex or age, to the sword. The king was so much affected with these cruelties, that he sent a second embassy to Nicephorus, offering to conclude a peace with him upon any terms. But, Nicephorus dismissing the ambassadors with scorn, the Bulgarian monarch attacked the Roman camp, forced it, and cut off almost the whole army, with the emperor himself, and a great number of patricians. His successor, Michael I., likewise engaged in a war with the Bulgarians; but, being utterly defeated, resigned the empire. After this the Bulgarians continued to be very formidable enemies till the year 979, when they were vigorously attacked by Basilus II. The Bulgarians were now governed by a king named Samuel; who having ravaged the Roman territories, Basilus sent against him Nicephorus Uranus at the head of a powerful army. Uranus, leaving his baggage at Larissa, reached by long marches the Spherchius, and encamped with his whole army over against the enemy, who lay on the opposite bank. As the river was greatly swelled, with the heavy rains that had lately fallen, Samuel, not imagining the Romans would attempt to pass it, suffered his troops to roam in large parties about the country. But Uranus, having at length found out a place where the river was fordable, passed it in the night, fell

upon the Bulgarians, who lay for the most part asleep: cutting great numbers in pieces, and making himself master of their camp. Samuel and his son were dangerously wounded; and would have been taken, had they not concealed themselves among the dead. The next night they stole away to the mountains of *Ætolia*. The following year the emperor entered Bulgaria at the head of a numerous and well disciplined army; defeated Samuel in a pitched battle, and took several strong cities. The emperor himself, however, at last, narrowly escaped being cut off in a narrow pass. From this danger he was relieved by the arrival of *Nicephorus Xiphias*, governor of *Philippopolis*, with a body of troops; who, falling upon the enemy's rear, put them to flight. *Basilius* pursued them close; and, having taken an incredible number of captives, caused their eyes to be pulled out, leaving to every hundred a guide with one eye, that he might conduct them to Samuel. This shocking spectacle so affected the king that he fell into a deep swoon, and died two days after. The emperor, pursuing his conquests, in the space of two years made himself master of most of the enemy's strong holds. He defeated also the successor of Samuel in several engagements; and, having at last killed him in battle, the Bulgarians submitted without reserve. The vast treasures of these princes were by *Basilius* distributed among his soldiers. Soon after the royal family surrendered themselves to the emperor, by whom they were received with the utmost respect. *Ibatzes*, however, a person nearly allied to the family, who had distinguished himself in an eminent manner during the whole course of the war, refused to submit. At last *Eustathius Daphnomelus*, whom *Basilius* had lately appointed governor of *Achridus*, the chief city of Bulgaria, undertook to secure him. Without communicating his design to any, he repaired, with two persons in whom he could confide, to the mountain on which *Ibatzes* had fortified himself. He hoped to pass undiscovered among the many strangers who flocked thither to celebrate the approaching feast of the *Virgin*, for whom *Ibatzes* had a great veneration. In this he found himself mistaken; for he was known by the guards, and carried before the prince. To him he pretended to have something of importance to communicate; but, as soon as *Ibatzes* had retired with him into a remote place, *Daphnomelus* threw himself suddenly upon him, and with the assistance of the two men whom he had brought with him, put out his eyes; and got safe to an abandoned castle on the top of the hill. Here they were immediately surrounded by the troops of *Ibatzes*; but *Daphnomelus* exhorting them now to submit to the emperor, by whom he assured them they would be well received, they congratulated *Daphnomelus* on his success, and suffered him to conduct the unhappy *Ibatzes* a prisoner to *Basilius*. The emperor was no less surprised than pleased at the success of this bold attempt; and rewarded *Daphnomelus* with the government of *Dyrrhachium*, and all the rich moveables of his prisoner. After this, having accomplished the entire reduction of Bulgaria, he returned to Constantinople with an incredible number of captives. All this time the Saracens

had at intervals invaded the Roman dominions, and even attempted to make themselves masters of the capital. Their internal divisions, however, rendered them now much less formidable enemies than they had formerly been; so that some provinces were recovered for a time out of their hands. In 1040 the empire was first invaded by the Turks; an enemy who, though not very powerful at that time, by degrees gathered strength sufficient to overthrow both the Roman and Saracen empires. See *TURKEY*. *Cullu-Moses*, nephew to *Tangrolipix*, the Turkish sultan, having been refused a passage through *Media*, in his retreat from Arabia, by *Stephen* the Roman governor, forced his passage and defeated the Roman army with so much ease that he told his uncle the province might be easily conquered. *Tangrolipix* accordingly sent *Asan*, another nephew, with an army of 20,000 men to reduce *Media*. The young prince entered that country, and committed every where dreadful ravages; but, being drawn into an ambush by the Roman generals, he was cut off with his whole army. *Tangrolipix*, not discouraged, sent a new army into *Media* of nearly 100,000 men who, after having ravaged the country without opposition, laid siege to *Artza*, a place of great trade. Not being able to reduce it by any other means they set it on fire; and 150,000 of the inhabitants perished either by the flames or the sword. After this *Abraham Halim*, half brother to *Tangrolipix*, hearing that the Romans, reinforced with a body of troops under *Liparites* governor of *Iberia*, had taken the field, marched against them, and the two armies engaged with incredible fury. The victory continued long doubtful; but at length inclined to the Romans, who nevertheless did not think proper to pursue the fugitives, as their general *Liparites* was taken prisoner. The emperor despatched ambassadors with rich presents, and a large sum of money to redeem him, and at the same time to conclude an alliance with *Tangrolipix*. The presents the sultan received; but immediately returned them together with the money to *Liparites*, whom he set at liberty without ransom. Not long after *Tangrolipix* sent an ambassador to Constantinople: who having exhorted the emperor to submit to his master, and acknowledge himself his tributary, was ignominiously driven out of the city. *Tangrolipix*, highly affronted at this, entered *Iberia*, while the emperor *Constantine Monomachus* was engaged in a war with the *Patzinacæ*, a Scythian nation. Having ravaged that country, he returned to *Media*, and laid siege for forty days to *Mantzichiarta*, a place defended by a numerous garrison. The next spring *Tangrolipix* returned, and ravaged *Iberia* with the utmost cruelty, sparing neither sex nor age. But, on the approach of the Roman army, he retired to *Tauris*, leaving 30,000 men on the frontiers of the empire. Till the time of this emperor the provinces bordering on the countries of the barbarians had maintained, at their own charge, forces to defend them: and were on that account exempted from paying tribute; but, as *Monomachus* exacted from them the same sums that were paid by others, they were no longer in a condition to defend themselves.

From CONSTANTINE DUCAS TO THE CAPTURE OF CONSTANTINOPLE BY THE LATINs.—In 1067 died the emperor Constantine Ducas, having left the empire to his three sons, Michael, Andronicus, and Constantine; but, as they were all very young, he appointed the empress Eudocia regent, after having required of her an oath never to marry. He likewise obliged the senators solemnly to swear that they would acknowledge none for their sovereign but his three sons. No sooner, however, was he dead than the Turks, hearing that the empire was governed by a woman, broke into Mesopotamia, Cilicia, and Cappadocia. The empress was no way in a condition to oppose them, the greater part of the army having been disbanded in her husband's life-time: and a discontented party existed at home, who observed that the state of affairs required a man of courage and address at the helm, instead of a weak woman. Eudocia therefore determined to marry some person of merit, capable of defeating her enemies: and when one Romanus Diogenes, a man of illustrious birth and beautiful person, was brought forth to receive sentence of death, she only gently upbraided him with his ambition and set him at liberty. Soon after she appointed him commander-in-chief of her forces. In this station he acquitted himself so well that the empress resolved to marry him if she could recover the writing in which her oath was contained out of the hands of the patriarch. In order to this she applied to a favorite eunuch; who told the patriarch that the empress was so taken with his nephew Bardas, that she was determined to marry and raise him to the empire, provided the patriarch absolved her from her oath, and convinced the senate of the lawfulness of her marriage. The patriarch, dazzled with the prospect of his nephew's promotion, readily undertook to perform both. He first obtained the consent of the senate, by representing to them the dangerous state of the empire, and exclaiming against the rash oath which the jealousy of the late emperor had extorted from the empress. He then publicly discharged her from it, and restored the writing to her, exhorting her to marry some deserving object, who, being entrusted with an absolute authority, might be capable of defending the empire. Thus discharged from her oath, the empress, a few days after, married Romanus Diogenes. Being a man of great activity and military talent, he took the command of the army, and passed over into Asia, recruiting and inuring his forces on his march to military discipline. On his arrival, being informed that the Turks had surprised and plundered Neocæsarea, and were retiring with their booty, he hastened after, and came up with them on the third day, when he cut off great numbers of them, and easily recovered the booty. After this he pursued his march to Aleppo, which he retook, together with Hierapolis, where he built a strong castle. In his return, he was met by a numerous body of Turks, who attempted to cut off his retreat; and he pretended to decline an engagement through fear; but attacked them afterwards with such vigor that he put them to flight at the first onset. After this several towns submitted to him; but, the season

being spent, he returned to Constantinople. The following year he passed over into Asia in the spring; and, being informed that the Turks had sacked Iconium, marched at once against them; when they retired in great haste. The Armenians, however, encouraged by the approach of the emperor's army, fell upon them in the plains of Tarsus, put them to flight, and stripped them both of their baggage and booty. The spring following the emperor once more entered Asia at the head of a considerable army. When the two armies drew near each other, Axan, the Turkish sultan, son of the famous Tangrolipix sent proposals to Romanus for a peace. These were imprudently rejected, and a desperate engagement ensued; when, in spite of the utmost efforts of the emperor, his army was routed, and he himself wounded and taken prisoner. When this news was brought to Axan, he could scarcely believe it; but, being convinced by the appearance of the royal captive in his presence, he tenderly embraced and consoled him. 'You shall have no occasion,' said he, 'to complain of your captivity: I will not use you as my prisoner, but as an emperor.' The Turk was as good as his word. He lodged Romanus in a royal pavilion; assigned him attendants, with an equipage suitable to his quality; and discharged such prisoners as he desired. After he had for some days entertained his captive with extraordinary magnificence, a perpetual peace was concluded, and the emperor dismissed with the greatest marks of honor. He then set out with the Turkish ambassador for Constantinople, where the peace was to be ratified; but by the way he was informed that Eudocia had been driven from the throne by John the brother of Constantine Ducas, and Psellus a leading man in the senate, who had confined her to a monastery, and proclaimed Michael Ducas, his eldest son, emperor. On this intelligence Romanus retired to a strong castle near Theodosiopolis, where he hoped soon to be joined by his friends and adherents. But John, who had taken upon him to act as guardian to the young prince, sent Andronicus with a considerable army against him; on which he was obliged to fly to Adana, in Cilicia, where he was closely besieged, and at last compelled to surrender. Andronicus carried his prisoner into Phrygia, where he fell dangerously ill, being, as was suspected, secretly poisoned. Here, at any rate, John ordered his eyes to be put out; which was done with such cruelty that he died soon after, in 1071, having reigned three years and eight months.

Axan was no sooner informed of the tragical end of his friend and ally than he resolved to invade the empire; and that not only with a design to plunder as formerly, but to conquer, and keep what he conquered. The emperor despatched against him Isaac Comnenus, with a considerable army; but he was defeated and taken prisoner by Axan. Another army was sent off under John Ducas, the emperor's uncle, who gained some advantages; but one Urselius revolted with the troops under his command, caused himself to be proclaimed emperor, and reduced several cities in Phrygia and Cappadocia. Against him John marched with all his

forces, suffering the Turks in the mean time to pursue their conquests; but, coming to an engagement with the rebels, his army was entirely defeated, and himself taken prisoner. Notwithstanding this victory, Urselius was so much alarmed at the progress of the Turks that he not only released his prisoner, but joined with him against the common enemy, by whom they were both defeated and taken prisoners. Axan, however, was now prevented from pursuing his conquests by Cutlu-Moses, nephew to the late Tangrolipix. He had revolted against his uncle; but, being defeated by him in a pitched battle, had taken refuge in Arabia, whence he returned at the head of a considerable army to dispute the sovereignty. But, while the two armies were preparing to engage, the khalif of Babylon interposed his authority, and, by his mediation, an agreement was concluded that Axan should enjoy undisturbed the monarchy lately left him by his father, and that Cutlu-Moses should possess such provinces of the Roman empire as he or his sons should conquer. Both the Turkish princes thus turned their forces against the empire; and, before 1077, made themselves masters of Media, Lycaonia, Cappadocia, and Bithynia, fixing their capital at Nice. During all this time the emperors of Constantinople, as well as their subjects, seemed to be in a manner infatuated. They took no notice of the great progress of these barbarians: the generals were ambitious only of seizing the tottering empire; and, after it was obtained, spent their time in oppressing their subjects, rather than in attempting to repulse the enemy. At last Alexius Comnenus, having wrested the empire from Nicephorus Botoniates, in 1080, began to prepare for opposing so formidable an enemy with vigor; so that Solyman, the Turkish sultan, son and successor to Cutlu-Moses, despatched ambassadors with proposals of peace. These were at first rejected; but Alexius was at last glad to accept them, on hearing that Robert Guiscard, duke of Puglia and Calabria, was making great preparations against him in the west. To this expedition Robert was incited by Michael Ducas. That prince had been deposed by Nicephorus Botoniates, and towards the end of the usurper's reign fled into the West, where he was received by Robert, who sailed with all his forces from Brundisium; and, landing at Buthrotum in Epirus, made himself master of that place, while his son Bohemond with part of the army reduced Aulon, a celebrated city of Albania. Thence they advanced to Dyrrhachium, which they invested both by sea and land; but met with a most vigorous opposition from George Palæologus, whom the emperor had entrusted with the defence of it. In spite of the utmost efforts of the enemy, this commander held out till the arrival of the Venetian fleet, by whom Robert's navy commanded by Bohemond was totally defeated, the admiral himself having narrowly escaped. After this victory the Venetians landed; and, being joined by Palæologus's men, fell upon Robert's troops with such fury that they destroyed their works, burnt their engines, and forced them back to their camp. As the Venetians were now masters at sea, the besieged were supplied with

plenty of provisions, while a famine began to rage in the camp of the enemy: a calamity soon followed by a plague, which in three months is said to have destroyed 10,000 men. Robert, however, did not abandon the siege, but pushed it with such vigor that the courage of the besieged began to fail; and Palæologus sent repeated messages to the emperor, stating that he should be obliged to surrender. On this Alexius marched in person to the relief of the city, but was defeated with great loss by Robert. The emperor himself with great difficulty made his escape, leaving the enemy master of his camp. Soon after this defeat the city surrendered; and Alexius, being destitute of resources, seized on the wealth of the churches and monasteries, which gave much offence to the clergy, and had nearly occasioned great disturbances in Constantinople. At the same time, entering into an alliance with Henry emperor of Germany, he persuaded him to invade the dominions of Robert in Italy. At first Henry met with great success; but was soon overcome and driven out by Robert. Bohemond, in the mean time, reduced several places in Illyricum; and, having defeated Alexius in two pitched battles, entered Thessaly, and set down before Larissa, till the emperor came to its relief. Soon after his arrival he drew a strong party of Bohemond's men into an ambuscade, and cut them almost all off. However, in a battle which was fought a few days after, Bohemond had the advantage; but his troops mutinying he was obliged to return to Italy. Alexius in his absence recovered several cities; and applied once more to the Venetians. By them he was assisted with a powerful fleet, which defeated that of Robert in two engagements; but being soon after surprised they were defeated with the loss of almost all their navy. Robert is said to have used his victory with great barbarity. The Venetians now equipped a second fleet; and, joining that of the emperor, fell unexpectedly upon Robert's navy in Buthrotum, sunk most of his ships, and took a great number of prisoners. Robert, while making preparations to revenge this defeat, was prevented by death; and his son Roger did not think proper to pursue so expensive a war.

This conflict was scarcely ended when the Scythians, passing the Danube, laid waste great part of Thrace, committing every where the greatest barbarities. Against them the emperor despatched an army under the command of Pacurianus and Branas. The latter engaged the enemy contrary to the opinion of his colleague; and his rashness caused the loss of the greater part of the army, who were cut off by the Scythians, together with two generals. On this Talicius, an officer who had signalised himself on many occasions, was appointed to the command. He fell upon the enemy as they lay securely near Philippopolis, cut off great numbers of them, and obliged the rest to retire in confusion. Next spring, however, they returned in such numbers that the emperor resolved to march against them in person. Accordingly he set out for Adrianople, and thence to Lardea. Here, contrary to the advice of his best officers, he ventured a battle; in which he was totally defeated with the loss of vast

numbers of men, he himself escaping with difficulty. The next year he was attended with no better success, his army being entirely defeated with the loss of his camp and baggage. But in 1084 he retrieved his credit; and gave the Scythians such an overthrow that very few escaped. Notwithstanding they again invaded the empire in 1093. To this they were encouraged by an impostor called Leo, who pretended to be the eldest son of Romanus Diogenes. The young prince had been slain in a battle with the Turks; but the Scythians only wanted a pretence to renew the war. By a stratagem, however, Leo was murdered; and the Scythians, being afterwards overthrown in two great battles, were obliged to submit on the emperor's own terms. From 1083 the war had been carried on with the Turks with various success; but now an association was formed in the west against these infidels. This was occasioned by the superstition of the Christians, who now meditated a crusade for the recovery of the Holy Land. Had the western princes been assisted by the emperor of the east in this undertaking, the Turks had undoubtedly, been unable to resist them; but the Latins were looked upon by them as no less enemies than the Turks; and indeed whatever places they took from the infidels they never thought of restoring to the emperors of Constantinople, but erected a number of small independent principalities; which neither having sufficient strength to defend themselves, nor being properly supported by one another, soon became a prey to the Turks. In 1203 happened a dreadful fire at Constantinople, occasioned by some Latin soldiers having plundered a mosque which the Turks had been suffered to build. For this reason they were attacked by the infidels; who being much superior to them in number, the Latins were obliged to set fire to some houses to make their escape. The flame, spreading in an instant from street to street, reduced great part of the city to ashes. The emperor Isaac Angelus, who had been restored to his throne by the Latins, died soon after their departure from Constantinople, leaving his son Alexius sole master of the empire. The young prince, to discharge the large sums he had promised to the French and Venetians for their assistance, was obliged to lay heavy taxes on his subjects; and this, with the great esteem and friendship he showed to his deliverers, raised a general discontent among the inhabitants of Constantinople, who were sworn enemies to the Latins. This encouraged John Ducas (surnamed Murtzuphlus from his joined and thick eyebrows) to attempt the sovereignty. Unhappily he found means to put his treacherous designs in execution, and strangled the young prince with his own hands. After this he presented himself to the people; told them what he had done, which he pretended was to secure their liberties; and earnestly entreated them to choose an emperor who had courage to defend them against the Latins. On this he was instantly saluted emperor, but his usurpation proved the ruin of the city. The Latins resolved immediately to revenge the death of the young prince; and, as they had been so often betrayed and retarded in their expeditions

to the Holy Land by the emperors of Constantinople, to make themselves masters of that city, and seize the empire. Accordingly they mustered all their forces in Asia, and, having crossed the straits, laid siege to Constantinople by sea and land. The tyrant, who was a man of great courage and experience, made a vigorous defence. The Latins, however, after having battered the walls for several days together with an incredible number of engines, made a general assault on the 8th of April 1204. The attack lasted from break of day till 3 P. M., when they were forced to retire, after having lost some of their engines, and a great number of men. The assault was nevertheless renewed four days after; when, after a warm dispute, the French planted their standard on one of the towers; which the Venetians observing, they quickly made themselves masters of four other towers, where they likewise displayed their ensigns. In the mean time three of the gates being broke down by the battering rams, and those who had scaled the walls having killed the guards and opened the gates, the whole army entered. The Greeks fled in the greatest confusion; and several parties of the Latins scouring the streets put all they met to the sword. Night put a stop to the dreadful slaughter, and next morning the Greeks entirely submitted; at the same time they were ordered to retire to their houses, the city being given up to be plundered by the soldiers. The Latins strictly enjoined their men to abstain from slaughter, to preserve the honor of the women, and to bring the whole booty into one place, that a just distribution might be made: but the Greeks had concealed their most valuable effects during the night; and many persons of the first rank had escaped, and carried along with them immense treasures. Yet the booty, without the statues, pictures, and jewels, amounted to a sum almost incredible. As for Murtzuphlus he made his escape in the night; embarking in a small vessel with Euphrosyne, the wife of Alexius Angelus a late usurper, and her daughter Eudoxia, for whose sake he had abandoned his wife.

FINAL DOWNFALL OF THE EASTERN EMPIRE.
—Constantinople continued subject to the Latins for fifty-six years, from A. D. 1205 till 1261: during which period Baldwin, earl of Flanders, Henry his brother, Peter de Courtenay, Robert, and Baldwin II. reigned successively as emperors. This last had reigned thirty-two years, when the Latins were expelled by Alexius Strategopulus, a person of illustrious family, and for his eminent services distinguished with the title of Cæsar. He had been sent against Alexius Angelus despot of Epirus, who now attempted to recover some places in Thessaly and Greece, from Michael Palæologus, one of the Greek emperors, who, since the capture of Constantinople, had kept their court at Nice: and to try whether he could on his march surprise the imperial city. Alexius, having passed the straits, encamped at a place called Rhégium, where he was informed by the natives that a strong body of the Latins had been sent to the siege of Daphuksa, that the garrison was in great want of provisions, and that it would be easy to surprise Constantinople. Whereupon the Greek general resolved at all

events to attempt it; in which he was encouraged by some of the inhabitants, who, coming privately to his camp, offered to be his guides. He approached in the night, and some of his men scaled the walls without being observed; when, killing the sentries, they opened the gates to the rest of the army. The Greeks, rushing in, put all they met to the sword; and, to create more terror, set fire to the city in four different places. The Latins, concluding from this that the enemy's forces were far more numerous than they really were, did not so much as attempt either to drive them out, or to extinguish the flames. In this general confusion Baldwin, quitting the ensigns of majesty, fled with Justinian the Latin patriarch, and some of his friends, to the sea-side; where, embarking in a small vessel, he sailed to Eubœa, and afterwards to Venice, leaving the Greeks in full possession of Constantinople. When the news of this surprising and unexpected success was first brought to Michael he could scarcely credit it; but, receiving letters from Alexius himself with a particular account of the event, he ordered thanks to be returned in all the churches, and couriers to be despatched with the agreeable news to all parts of the empire. Soon after he set out for Constantinople with the empress, his family, the senate, and nobility, to take possession of the imperial city. Having passed the straits he advanced to the golden gate, and continued some days without the walls, while the citizens were making the necessary preparations to receive him with suitable magnificence. On the day appointed the golden gate, which had been long shut, was opened, and the emperor entered amidst the acclamations of the multitude to the great palace. He was preceded by the bishop of Cyzicus, who carried an image of the Virgin, and followed by all the great officers, nobility, and chief citizens, pompously dressed. Public thanks were again returned in the church of St. Sophia, at which the emperor assisted in person. After this the emperor carefully surveyed the city, a duty which greatly allayed his joy. He saw the stately palaces and other magnificent buildings of the emperors lying in ruins; many capacious buildings that had been erected by his predecessors, at an immense charge, destroyed by fire, and other accidents of war; several streets abandoned by the inhabitants, and choked up with rubbish, &c. These objects only, however, excited in him a desire of restoring the city. In the mean time, looking upon Alexius as the restorer of his country, he caused him to be clad in magnificent robes; placed with his own hand a crown on his head; ordered him to be conducted through the city in triumph; decreed that, for a whole year, his name should be joined in the public prayers with his own; and commanded his statue to be erected on a stately pillar of marble. His next care was to repopulate the city, many Greek families having withdrawn while it was held by the Latins. The former were recalled, and the latter were allowed many privileges to induce them not to remove. Great privileges were likewise granted to the natives of Venice and Pisa, which encouraged them to lay aside all thoughts of removing. Michael, however, being soon after

informed that the ci-devant emperor Baldwin II. had married his daughter to Charles king of Sicily, and given him Constantinople by way of dowry, he ordered the Genoese, who were become very numerous, to remove first to Heraclea, and afterwards to Galata. The Pisans and Venetians, who were not so numerous and wealthy, were allowed to continue in the city.

Michael, though he had caused himself to be proclaimed emperor, and was possessed of absolute sovereignty, was as yet only guardian to the young emperor John Lascaris, then about twelve years of age. But having now settled the state, and gained the affections both of natives and foreigners, he began to think of securing himself and his posterity in the empire; and cruelly ordered the eyes of the young prince to be put out. This piece of barbarity involved him in great troubles. The patriarch immediately excommunicated him; and he would probably have been driven from the throne, had he not engaged pope Urban IV. to espouse his cause, by promising to submit himself and his dominions to the Latin church. Thus, indeed, he diverted the foreign storm; but caused fresh domestic disturbances, not only in Constantinople, but throughout the empire. In 1283 Michael VII. died, and was succeeded by his son Andronicus II. His first step was to restore the ancient Greek ceremonies. But he thus involved himself in greater difficulties: though Michael had not been able fully to reconcile his Greek subjects to the Latin ceremonies, yet he had in some degree accomplished his purpose. The Latins had obtained a considerable footing in the city, and defended their ceremonies with great obstinacy; so that the empire was again thrown into a ferment. All this time the Turks had been continuing their encroachments on the empire. They were now, however, very successfully opposed by Constantine the emperor's brother: but his valor rendered him suspected, in consequence of which he was thrown into prison, along with several persons of distinction. On the removal of this great commander, the Turks, under the famous Othoman, made themselves masters of several places in Phrygia, Caria, and Bithynia; and among the rest of the city of Nice. To put a stop to their conquests, the emperor despatched against them Philanthropenus and Libadarius, officers of great experience. The former gained some advantages over the enemy; but, being elated with his success, caused himself to be proclaimed emperor. This rebellion, however, was soon suppressed, Philanthropenus being betrayed by his own men: but the Turks, taking advantage of the subsequent commotions, not only extended their dominions in Asia, but conquered most of the islands in the Mediterranean; and infested the coasts of the empire, to the utter ruin of commerce. From this time the eastern empire tended fast to dissolution. After the revolt of Philanthropenus, the emperor could no longer trust his subjects, and therefore hired the Massagetes: but they were first defeated by his enemies, and afterwards turned their arms against him. He next applied to the Catalans, who behaved in the same manner; and, having ravaged the few places he

had left in Asia, returned into Europe, and called the Turks to their assistance. This happened in 1292, and was the first appearance of the Turks in Europe.

This enterprise, however, was unsuccessful. Having loaded themselves with booty, they offered to depart quietly if they were allowed a safe passage, and ships to transport them to Asia. To this the emperor readily consented, and ordered the vessels to be got ready with all possible expedition. But the Greek officers, observing the immense booty with which they were loaded, resolved to fall upon them in the night, and cut them all off. Of this wretched scheme, however, the Turks got notice, and prepared for their defence. They first surprised a strong castle in the neighbourhood, and then found means to acquaint their countrymen in Asia with their dangerous situation. Their brethren, having crossed the Hellespont in great numbers, ravaged the adjacent country, making excursions to the very gates of Constantinople: at last the emperor determined to march against them with all his forces, the people flocking to him from all quarters. The Turks at first gave themselves over for lost; but finding the Greeks negligent of discipline, they attacked their army unexpectedly, utterly defeated it, and made themselves masters of the camp. After this they continued for two years to ravage Thrace terribly; but at last were defeated, and being afterwards shut up in the Chersonesus, were all cut in pieces or taken. Soon after new commotions took place in this unhappy empire, of which the Turks did not fail to take the advantage. 1327 they made themselves masters of most of the cities on the Mæander; and among the rest of Prusa in Bithynia. The next year, however, Othoman the founder of the Turkish monarchy being dead, the emperor recovered Nice, and some other important places. But these, with Abydus and Nicomedia, were lost in 1328; and in 1330 a peace was concluded upon condition that they should keep all their conquests. This peace they observed no longer than served their own purposes; for new commotions breaking out in the empire, they pursued their conquests, and in 1357 had reduced all Asia. They next passed the Hellespont under Solyman the son of Orchan, the successor of Othoman, and seized a strong castle on the European side. Soon after Orchan died, and was succeeded by Amurath I. He extended the conquests of his predecessors, and in a short time reduced all Thrace, making Adrianople the seat of his empire. Amurath was murdered soon after, and was succeeded by his son Bajazet I., who greatly enlarged his dominions by new conquests. In a short time he reduced Thessaly, Macedon, Phocis, Peloponnesus, Mysia, and Bulgaria, driving out the petty princes who governed them. Elated with his frequent victories, he began to look upon the Greek emperor, Andronicus IV., to whom nothing was now left but the city of Constantinople and the neighbouring country, as his vassal. Accordingly he sent him a haughty message, commanding him to pay a yearly tribute, and send his brother Manuel to attend him in his military expeditions. This demand the emperor

was obliged to comply with, but died soon after in 1387.

Manuel no sooner heard of his brother's death than he hastened to Constantinople, without taking leave of the sultan, or acquainting him with the reasons of his sudden departure. At this Bajazet was so offended that he passed with great expedition from Bithynia into Thrace, ravaged the country adjoining to Constantinople, and at last invested the city both by sea and land. In this extremity Manuel had recourse to the western princes; who sent him an army of 130,000 men, under Sigismund king of Hungary, and John count of Nevers. But, though the western troops proved at first successful, they were in the end defeated with great slaughter by Bajazet. As he found, however, that the citizens were determined to hold out to the last, he applied to John, the son of Andronicus IV. who had a better title to the crown than Manuel. With him he entered into a private agreement, by which Bajazet was to place John upon the Constantinopolitan throne, while John was to deliver up the city to the Turks, and remove the imperial seat to the Peloponnesus. At the same time he sent deputies to the inhabitants of Constantinople, offering to withdraw his army, and cease from further hostilities, provided they expelled Manuel and placed John upon the throne. This proposal rent the city into factions; but Manuel prevented the mischiefs which were ready to ensue by a voluntary resignation; and, having conducted John to the palace, set sail for Venice. Thence he went to the courts of all the western princes to solicit their assistance against the Turks. He was every where received with the greatest demonstrations of esteem, and promised large supplies, all Christendom being now alarmed at the progress of the infidels. In the mean time Bajazet did not fail to put John in mind of his promise; but, the citizens refusing to comply with such a scandalous treaty, the siege was renewed, and the city assaulted with more fury than ever. When it was already reduced to the last extremity, tidings were brought to the sultan that Tamerlane, the victorious Tartar, having over-run all the east with incredible celerity, had now turned his arms against the Turks, and was preparing to break into Syria. Alarmed at the danger that threatened him, Bajazet raised the siege in great haste, and advanced against Tamerlane with a numerous and well disciplined army; but the Tartars totally defeated and took him prisoner, after having cut most of his men in pieces. Thus Constantinople was preserved for the present. But this relief was of short duration. In 1424, in the reign of John V., the son of Manuel, the city was besieged by Amurath II. The inhabitants defended themselves with great bravery; but must in the end have submitted, had not the emperor prevailed upon the prince of Caramania to countenance an impostor and pretender to the Turkish throne. This obliged Amurath to raise the siege, and march with all his forces against the usurper. Having then no other enemies, he entered Macedon at the head of a powerful army; and, having ravaged the country far and near, took and plundered Thessalonica, and most of the cities

of Ætolia, Phocis, and Bœotia. From Greece he marched into Servia; reduced the greatest part of it; and besieged the strong city of Belgrade; but here he met with a vigorous repulse, no fewer than 15,000 Turks being slain by the Christians in one sally. In his retreat he was attacked by the celebrated John Hunniades, who cut off great numbers of his men. Not long after he gained a still more complete victory over the enemy in the plains of Transylvania, with the loss of only 3000 of his own men, whereas 20,000 Turks were killed on the field of battle, and almost an equal number in the pursuit. Amurath, who was then at Adrianople, sent an army into Transylvania far more numerous than the former; but they were attended with no better success, being cut off almost to a man by the brave Hungarian. He gained several other victories no less remarkable; but was at last entirely defeated in 1448; and with this defeat ended all hopes of preserving the empire. The unhappy emperor was now obliged to pay an annual tribute of 300,000 aspers to the sultan, and to yield up to him some strong holds on the Euxine. However, as he doubted not but Amurath would soon attempt to become master of the capital, he renewed the union between the Greek and Latin churches, hoping that this would induce the western princes to assist him in the defence of the city. This produced great disturbances, which the emperor did not long survive; as he died in 1448, leaving the empire, now confined within the walls of Constantinople, to his brother Constantine XIII.

Amurath died in 1450, and was succeeded by his son Mohammed II. In the beginning of his reign he entered into an alliance with Constantine, and pretended a great desire to live in friendship with him; but no sooner had he put an end to a war in which he was engaged with Ibrahim king of Caramania, than he built a strong fort on the European side of the Bosphorus, opposite to another in Asia; in both of which he placed garrisons. These two castles commanded the Straits; and the former, being but five miles from the city, kept it in a manner blocked up. This soon produced a misunderstanding between him and the emperor, which ended in the siege of the city. This commenced on the 6th of April, 1453; Mohammed's numerous forces covering the plains before it on the land side, and a fleet of 300 sail blockading it by sea. The emperor, however, had taken care to secure the haven, in which were three large ships, twenty small ones, and a great number of galleys. Mohammed began the siege by planting batteries, and raising works in several places as high as the walls, whence the besieged were incessantly galled with arrows. He had in his camp a piece of ordnance of prodigious size, which is said to have carried a stone ball of 100 lb. With this piece the enemy made several breaches in the walls; which, however, were repaired with incredible expedition. Mohammed, the better to carry on the siege, caused new levies to be made throughout his dominions, by which his army was soon increased to near 400,000 men; while the garrison consisted only of 9000 regular troops, viz. 6000 Greeks and 3000 Ge-

noese and Venetians. As the enemy continued to batter the walls day and night, a great part of them was at last beaten down; while the Turks, however, were busy filling up the ditch, a new wall was built. This threw the tyrant into a prodigious rage, which was greatly heightened when he saw his whole fleet worsted by five ships, of which four were laden with corn from Peloponnesus, and the other with provisions from Chios. These made their way through the Turkish fleet; and, to the great joy of the Christians, got safe into the harbour. The Turks attempted several times to force the haven; but, all their efforts proving ineffectual, Mohammed formed the design of conveying eighty galleys eight miles over land into it. This he accomplished by means of certain engines, the contrivance of a renegado; and, having then either taken or sunk all the Christian ships, he caused a bridge to be built over it with surprising expedition. Thus the city was laid open on that side likewise, and assaulted on all sides. Constantine, now feeling that he could not long hold out against such a mighty and successful enemy, sent deputies to Mohammed, offering to acknowledge himself his vassal, by paying him yearly what tribute he should impose, provided he raised the siege and withdrew. The tyrant answered that he was determined to become master of the city: but if Constantine would deliver it up forthwith, he would yield to him the Peloponnesus, and other provinces to his brothers, which they should enjoy peaceably: but if he held out to the last extremity, and suffered it to be taken by assault, he would put him and the whole nobility to the sword, carry the inhabitants into captivity, and give up the city to plunder. These conditions were rejected by the emperor. The siege was therefore renewed with vigor, and continued till the 25th of May; when a report being spread in the Turkish camp that a large army was advancing to the relief of the city under the celebrated John Hunniades, the soldiers began to mutiny, and pressed Mohammed to raise it. Mohammed was upon the point of complying, when he was advised by Zagan, a Turkish officer of great intrepidity, and an irreconcilable enemy to the Christians, to attempt immediately a general assault. To this he said the soldiers would not be averse, provided the sultan promised to abandon the city to be plundered by them. Mohammed accordingly published a proclamation throughout the camp, declaring that he gave up to his soldiers all the wealth of the opulent capital before them, requiring for himself only the empty houses; and they unanimously desired to be led to the attack. Hereupon Constantine was summoned for the last time to deliver up the city, with a promise of his life and liberty; but to this he answered that he was unalterably determined to defend the city or perish with it. The attack began at three in the morning on the 29th of May; such troops being first employed as the sultan valued least, and designed for no other purpose than to tire the Christians. After the carnage had lasted some hours, the Janissaries and other fresh troops advanced in good order. The Christians making prodigious efforts twice repulsed the enemy:

but being in the end exhausted, they were no longer able to stand their ground; and the enemy broke in several places into the city. In the mean time Justiniani, the commander of the Genoese and a select body of Greeks, having received two wounds, one in the thigh and the other in the hand, was so disheartened that he caused himself to be conveyed to Galata. His men, dismayed at the sudden flight of their general, immediately quitted their posts and fled in the utmost confusion. The emperor, however, attended with a few of the most resolute of the nobility, still kept his post, striving with unparalleled resolution to oppose the multitude of barbarians that now broke in from every quarter. Being in the end overpowered with numbers, and seeing most of his friends fallen around him, 'What!' cried he aloud, 'is there no Christian left alive to strike off my head?' Scarcely had he uttered these words, when one of the enemy, not knowing him, cut him across the face with his sabre; and another coming behind him with a blow on the back part of his head laid him dead on the ground. The few Christians now left alive fled; and the Turks, meeting with no further opposition, entered the city, and put all they met without distinction to the sword. Many thousands took refuge in the church of St. Sophia, but they were all massacred in their asylum. Most of the nobility were, by the sultan's orders, cut off, and the rest kept for purposes more grievous than death. Many of the inhabitants, among whom were some men of great learning, escaped, however, while the Turks were busied in plundering the city. These, embarking in the ships then in the harbour, arrived safe in Italy; where, with the study of the Greek tongue, they revived the liberal sciences, which had long been neglected in the west. After the expiration of three days, Mohammed commanded his soldiers to forbear all farther hostilities on pain of death; and thus put an end to as cruel a pillage and massacre as any recorded in history. The next day he made his triumphal entry into Constantinople, and chose it for the seat of the Turkish empire, which it has continued to be ever since.

PART VI.

ROME, MODERN.

Modern Rome is built chiefly on the left or eastern bank of the Tiber, there being only a few streets on its western side. The walls are of a quadrangular figure, somewhat more than three miles each way, the circuit being in all about thirteen miles. While this is equal to the circumference of ancient Rome in its greatest splendor, there is this distinction perhaps between the ancient and modern city, that of the 'seven hills' on which the former stood, several, viz. Mons Aventinus, Palatinus, Cœlius, and in some degree Mons Esquilinus, Viminalis, and Quirinalis, are covered with vineyards, corn fields, or villas, the closely peopled part being confined to the level ground between the eminences and the river. The length of this part is less than two miles, its breadth from a mile to a mile and a half.

The most regular part of Modern Rome is that adjacent to the north gate, or Porta del Popolo, and the quarter of Borgo, on the right of the river. The points from which it can best be viewed are the Pincian Hill, Mount Janiculum, the tower of the Capitol, and the tops of the columns of Trajan or Antonine.

The streets have seldom any foot pavement; and are in general not wider than those of the older parts of London. Some indeed are wretchedly narrow and irregular, but the houses are not high; and a number of the streets are long and straight, and not unfrequently terminated by an obelisk, fountain, or church. The great drawback on the beauty of the city is the singular discrepancy of its buildings, a mansion entitled to the name of palace being often placed amidst a group of hovels; and the mean appearance of the shops. Three of the finest streets of the city diverge from the Piazza di Popolo, near the northern gate, viz. the Corso, extending to the foot of the Capitol; the Strada del Babuina, ending in the Piazza di Spagna, and the Strada di Ripetta, leading to the Tiber. The Corso is the great public walk, and the crowded scene of the carnival. It is perfectly straight, about a mile in length, and has a foot pavement on each side. Other fine streets are the Strada Felice, the Strada Langara, the Strada Maggiore, and the Strada Pia. The houses are partly of stone and brick, frequently covered with stucco, and generally roofed with shingle. Marble is less common here than in the north of Italy.

The modern squares are numerous, adorned with obelisks, fountains, &c.; but also generally of small size. In front of St. Peter's church is a large oval area form, surrounded with a magnificent colonnade; and in the middle between two fountains stands an Egyptian obelisk, of a single piece of granite, seventy-eight feet in height. The elegant Piazza Navona, a square in the centre of the town, next in size to that of St. Peter, is of an oblong form, and adorned by the church of St. Agnes, but its chief ornament is the fountain in its centre. It consists of a circular basin of seventy-three feet in diameter, in the middle of which stands a rock surmounted by an obelisk; on this rock recline four figures representing four great rivers, from which streams of water issue. This is on the whole the most superb fountain of the city. The Piazza di Spagna, occupied largely by foreigners of distinction, has also a fountain; but its chief ornament is a noble flight of steps that ascend from it to the church and square della Trinita di Monte; the latter extending along the brow of the Pincian Hill, and commanding a delightful view. The Piazza di Monte Cavallo, one of the finest in the city both for its situation and buildings, stands on Mount Quirinal, and takes its name from two marble horses placed on its summit, said to be the work of Phidias and Praxiteles. Between them stands an Egyptian obelisk of granite, forty-five feet in height. Old Intermentium now forms a small square, decorated in the middle with a fine bronze equestrian statue of Marcus Antoninus, accounted a master piece of ancient art. The Campidoglio

Moderno, or Modern Capitol, is ascended by a staircase adorned with statues: but all the statues of the forum have disappeared; and a few scattered porticoes, with here and there an insulated column, fragments of marble, capitals, and cornices, are now its only memorials. The Piazza di Campo Marzio, taking its name from the *Campus Martius*, is in a great measure covered with buildings.

The ancient wall of Rome is in many places in good preservation; and among the ancient edifices the Pantheon and Coliseum are still conspicuous. For the present state and history of the latter see our article AMPHITHEATRE. At a short distance from it, near the Viminal and Quirinal hills, stands a portion of the baths of Dioclesian, converted into a convent. The principal hall forms the church, retaining its ancient walls, pillars, and vaults; there remains also a large square, supported by 100 pillars, with a beautiful fountain in the middle. Of the triumphal arches the only one remaining entire is the remarkable one of Constantine, with its pillars, statues, and has reliefs. The arch of Septimius Severus, also of marble, has its bas reliefs much damaged: and that of Titus has also suffered severely. Trajan's pillar is still covered with admirable bas reliefs, representing his Dacian expedition. These reliefs contain 2500 figures of men, besides a number of elephants, horses, and trophies. That in honor of the emperor Marcus Aurelius is of equal height, but of inferior execution.

Of the ancient aqueducts there remain the Fontana Felice, on the Viminal Mountain, supplied by the Aqua Claudia, and discharging itself through a rock under an Ionic arcade: at a considerable distance, and on the other side of the Tiber, rises an arcade, supported by pillars of granite, through which three streams descend from the summit of an adjacent hill. 2. The Fontana di Trevi, an elegant building of Corinthian architecture, ornamented with statues, and is perhaps the most finished structure of the kind in Europe. It would be tedious to enumerate the other fountains in Rome. The sewers of the ancient city are now much obstructed by stones and earth; but the Cloaca Maxima still merits attention. As to public baths, those great objects of Roman luxury, there remain of those of Caracalla little but the walls, and the baths of Titus, in tolerable preservation.

The Palatine Mount is now a shapeless mass of rubbish. Of the various theatres and circuses of ancient Rome hardly a vestige remains: even the Circus Maximus can be traced only by the hollow scooped in the Aventine valley; and many other monuments are of course obscured or demolished; so that a stranger is generally disappointed on his first investigation of this capital. It has of late been proposed to make a temporary diversion of the Tiber for the purpose of antiquarian research; but some attempts, in 1819 and 1820, to discover hidden relics, by means of a small vessel, with an apparatus for raising heavy bodies, have not succeeded.

Of the ancient roads, several, as the Via Latina, the Via Vitellia, the Via Aurelia, still serve to approach the Capitol; and the catacombs, originally

excavations made in digging out the earth used as bricks for building, are of great extent, penetrating, it is said, to a length of several miles.

The oldest church of modern Rome is that of St. Clement. The church of St. Pietro di Vincoli is a noble hall, supported by twenty pillars of Parian marble, and adorned with elegant tombs. St. Martin's and St. Silvester's are built of part of the materials of the baths of Titus. The church of St. Andrea, on Monte Cavallo, though small, is highly finished. That of St. Cecilia, in Trastevere, as well as those of St. Maria in the same quarter, St. Sebastiano and St. Pietro in Montorio, are all of great antiquity. The last contains Raphael's famous picture of the Transfiguration. The churches of St. Grisogono and St. Giovanni e Paolo are splendidly adorned with pillars. Santa Maria Egizna, a building of the Ionic order, is supposed to be the ancient temple of Fortuna Virilis, and Santa Maria Sopra Minerva a temple of that goddess: while the church of Ava Cœli is said to occupy the site of the temple of Jupiter Capitolinus.

The Pantheon and seven patriarchal basilicæ, or cathedrals, are all of considerable antiquity. The pantheon, built in the reign of Augustus, and called from its form the rotunda, contains busts of a number of eminent men. Of the cathedrals, Santa Maria Maggiore is situated on the Esquiline Mount, and has two fronts, each of modern architecture. St. Giovanni, in Laterone, is the regular cathedral of the diocese of Rome. It was founded by Constantine. Another cathedral, that of Santa Croce, in Gierusalemme, was erected by Constantine on the ruins of a temple of Venus, and is remarkable for its antique form, and beautiful retired situation. A third church, begun by Constantine but much extended since his reign, is that of St Paoli, out side of the city wall. The cathedral of St Lorenzo is also outside of the city, on the Via Tiburtina.

The original St. Peter's was also erected by Constantine, but had been giving way for some time previous to the middle of the fifteenth century, when Nicholas V. conceived the project of taking it down. The work, however, was feebly prosecuted, till the reign of Julius II.. That prelate proceeded with it on a grand scale, and succeeding popes contributed to its completion. The most celebrated architects of modern times, Bramante, Raphael, Michael Angelo, Vignola, Maderno, and Bernini, have here displayed their talents. A circular court, formed by a vast colonnade, first strikes the eye of the spectator, and leads to the majestic front of the building, extending 400 feet in length, and rising to the height of 180. The eye is at the same time gratified with the majestic dome, rising from the central part of the church to a height from the ground of 324 feet. The interior of the church corresponds with its outward grandeur. Five portals open into the portico, a gallery extending across the width of the edifice, and resembling in size a cathedral. This magnificent entrance is paved with marble, covered with a gilded vault, and closed at either end by statues. Opposite to the five portals are five doors, leading into the church. On entering any of these the spectator

beholds the most spacious hall ever constructed by human art, expanding in magnificent perspective, its length being above 600 English feet. The aisles and altars are adorned with a number of ancient pillars; the walls with festoons, wreaths, tiaras, and other ornaments of marble. The patriarchal chair of St. Peter is a throne, elevated to the height of seventy feet. The high altar has below it what is called St. Peter's Tomb; above a magnificent canopy of brass, towering to the height of 132 feet. A well lighted staircase leads to the roof of St. Peter's, from which the dome can be viewed with minuteness. The access to every part of it, and even the ascent to the cupola, is perfectly easy. The recent part of the pile is the vestry or sacristi, a structure connected with the main building by a gallery, and adorned with a number of pillars, statues, paintings, and mosaics. It forms of itself a spacious church.

'The first visit paid to the church of St. Peter's,' says the spirited author of 'Italy,' 'should not be made by the ordinary conveyance to all such sights in Rome—a carriage. It should be approached by pilgrim-steps, slow and difficult; and that great temple,

— Where majesty,
Power, glory, strength, and beauty, all are hailed,

should be reached on foot, and sought through those various details of misery, disorder, and degradation, which distinguish alike all its avenues, and are the elements out of which its grandeur sprang. Around the other great Basilica of Rome there reigns a saddening region of desolation; and St. Paul's and St. John de Lateran rise on the dreary frontiers of the infected deserts they denominate, like temples dedicated to the genius of the mal-aria. But the approach to St. Peter's has another character: every narrow avenue is thickly colonised with a race of beings marked by traits of indigence or demoralisation; and every dark dilapidated den teems with a tenantry, which might well belong to other purlieus than those of the church. It is thus that the altars of St. Peter's are approached, as they were raised, upon the necks of the people. Here the streets of the filthiest city in Europe are found filthiest! Here forms, on which Love had set his seal, are equally disfigured by the neglect of cleanliness, or by meretricious ornament!—and the young plebeian beauty, lying on the threshold of some ruinous fabric, withdrawing the bodkin from tresses it is dangerous to loosen, and submitting a fine head to the inspection of some ancient crone, smiles on the passing stranger with all the complacency of a Du Barry, when she made her toilette for the good of the public, surrounded by the dignitaries of the church, who emulously canvassed for its offices. The streets leading immediately to St. Peter's occasionally exhibit a spacious but dilapidated palace, mingled with inferior buildings; but many even of these have their façades of marble disfigured by washerwomen's lines; and an atmosphere of soapsuds indicates an attention to cleanliness, whose effects are nowhere visible in Rome, but in the stench which issues from the laundresses' windows in the very finest

of its streets. These discouraging avenues at last waded through, the Piazza de St. Pietro in Vaticano bursts upon the eye, more striking from the contrast that its beauty and magnificence present to the images of poverty and disgust which have preceded it.

'Nothing that art or judgment can dictate, or criticism or pretension utter, on this great object of universal wonder, has been left unsaid or unillustrated. The profoundest Virtuosi of the last age have commented on it; the greatest poet of the present age has sung it; and from the folios of Piranesi to the portefeuille of the most juvenile traveller, views of its architecture are to be found. Little is now left to future visitants, but to enjoy, in silence, their own opinion (should they have any they may call their own), or at most to express the impression communicated to their own minds, on their first view of this supposed miracle of art. The first impression of the façade of St. Peter on the writer of these pages was one of utter disappointment. It did not strike her by its magnitude!—and in its want of simplicity and completeness (broken up as it is by pilasters, loggie, niches, balustrades, &c.), it did not affect her with pleasurable emotion. With none present to direct her judgment, and shame her ignorance, she turned involuntarily away, after a few minutes' observation, to contemplate objects infinitely more attractive to her unlearned apprehension. These were its beautiful semicircular colonnades; its noble fountains dashing their pure bright waters into mid-air, sparkling with sun-beams, and diffusing freshness as they fall; and that antique obelisk, whose transfer from Heliopolis (where the son of Sesostris raised it) to the circus of Nero, where Caligula placed it, includes the history of fallen empires, and of power not subdued, but strangely transmuted. The impression made by the façade of St. Peter's was never effaced. The original design of Michael Angelo, shown in the library of the Vatican, served but to confirm it; and the opinion of one, whose judgment, next to that of Michael Angelo's own, might be trusted, left the decision of ignorance sanctioned by the dictum of the presiding genius of the art.

'But the magnitude of St. Peter's is never justly estimated on a first or many following inspections; which is the fault of its faultlessness: for besides that it is out of the span of human recognition—beyond the test of all received experience—the harmony of its proportions is so perfect as to leave nothing for comparison; there flutter colossal doves in cornices lofty as the eagle's eyrie; there frown saints

—In bulk as huge

As whom the fables name of monstrous size,

the Briareus's of the martyrology!—while cherubs, tall as Typhons, and letters to be read by the cubit, diminish the height of that cupola (the Ossa piled on Pelion of architecture), and lessen the vastness of those interminable naves, whose votive chapels might serve for metropolitan churches. But the temple of St. Peter, with all its unrivalled riches, surpassing the works of Memphian kings, is but a gigantic toy; and the

wanton, the incalculable profusion of its gems and precious stones, its statues and pictures, its mosaics and gold, its bronzes and marbles, its spotless freshness and unsullied lustre, separate it from the imagination, and leave it without one of those solemn associations which blend such edifices with a remembrance of the mysterious past, and give them an interest in the mind beyond what the eye can command.'

'Among the number of its splendid mausoleums,' continues this writer, 'all raised to the memory of pontiffs and princes of the church, or to enshrine the ashes of kings and queens, there is one which affords a striking commentary on the text of this mighty edifice. It is the tomb of the famous countess Matilda, the most powerful ally the church ever knew; and her defence of the popes and their system, and the bequest of her valuable patrimony to the church, have obtained for her a monument in St. Peter's, to which her ashes were conveyed from Mantua by pope Urban VIII. Her effigy represents a stern and dogged-looking woman, one whose strong volition might have passed for genius—she holds the papal sceptre and tiara in one hand, and in the other the keys of the church! at her feet lies her sarcophagus! and its relievoes form the precious part of the monument. They represent the emperor Henry IV. at the feet of pope Gregory VII., where Matilda had assisted to place him. The abject, prostrate, half-naked emperor, surrounded by Italian princes and ecclesiastical barons, the witnesses of his shame and degradation, forms a fine contrast to the haughty and all-powerful pope; who seems ready to place his foot upon the imperial neck of the unfortunate sovereign, who, thus crouching in the dust, represented the Roman Cæsars! Such was the church in her great day!—When the emperor Joseph II. visited St. Peter's, and his conductors led him to this monument, he is said to have turned from it with an ironical smile, and a crimson blush of indignation! It was then, perhaps, that his personal feelings gave new impulse to his philosophical reformation, urging him to decide on the fate of cowls, hoods, and habits, with their wearers; and from that moment he may have considered

—Relic beads,

Indulgences, dispenses, pardons, bulls,
The sport of winds.'

Milton.

One of the most remarkable modern additions to St. Peter's is the beautiful mausoleum, the work of Canova, raised to the memory of James II., king of England, his queen, and his two sons. This monument, and these titles, were bestowed by the munificence of the prince regent of England.

We shall follow the writer just quoted through the Vatican and the other principal palaces.

The *Palazzo Pontificio del Vaticano*, communicating with St. Peter's, is rather a congregation of palaces, than a single edifice; and its architecture is as various as the ages and talents that went to its completion. The genius of Bramante, of Raphael, of San Gallo, of Fontana, of Bernini, with many other eminent and scarcely inferior artists, has been concentrated on its progressive

erection; and the talents of all ages, of all nations, have contributed to fill its marble labyrinths. The elevation is divided into three lofty stories, each story surrounded by a loggia, or open corridor, richly painted; its countless halls, its endless galleries, its beautiful chapels, its venerable library, its twenty courts (*cortili*), and 200 stair-cases, present a wilderness of building, out of which the stranger, how frequent soever his visits, can only recal those particular apartments more eminently distinguished than others by some miracle or miracles of art, from which they take their name. The *Carte du Pays* he will never master; but, go where he may, he will never forget the loggia of Raphael, the *Borgia suite*, the *Portico del Cortile*, the *Belvedere*, and the successive cabinets dedicated to various works of antiquity,—the perfection of all that genius ever conceived, or art and labor perfected. Such are the halls of the animals, of the busts, of the muses, of the rotunda, the cabinets of the biga, of the candelabras, and that vast covered space which takes the various names of *corridore di inscriptions (dei Lapid)*, of the *belvedere*, of the *musco chiaromonti*, and *clementino*. This gallery is divided by gates and columns, as if to make artificial stages in its interminable length, and afford stations for the imagination to repose on, or memory to refer to. The first portion (into which the library of the vatican opens) is lined on either side with the rarest collection of inscriptions known in Europe. Those of the early Greek and Latin Christians, which have been found in the catacombs, occupy the left side; those of the heathen world are on the right, mingled with tombs, monuments, and sarcophagi, each in itself a study and a moral. The *musco chiaromonti* succeeds, rich in monuments of antiquity, statues, busts, and basso-relievoes—the work of the Phidias's of other ages, arranged by the Phidias of the present. Here the living make their personal acquaintance with the dead, and the features of a *Commodus*, a *Tiberius*, and a *Lucius Verus*, become as familiar to the mind as their deeds and reigns. The *Musco Pio-Clementino*, the collection of the treasures accumulated by the late pope, changes the scene, and belongs to the edifices occupied by the deities and priestesses and emperors of the preceding gallery. Here are hung the appropriate ornaments of temples, theatres, basilicas, forums, circuses, baths, and palaces, all beautiful in design and perfect in execution; and to these naturally follows the vestibule of the tombs—with the sarcophagus of a *Scipio* and the sepulchral effigies of some fair Roman dame, over whose death-couch love still hovers. In moving among these consecrated images of art and time, the mind of the spectator catches something of their calm and dignity; for there is in ancient sculpture a quietude of grandeur, a solemnity of grace, not found in the works of modern genius, and which belong, perhaps, to the originals they copied. This majesty of expression and tranquility of form, so well known to the Egyptians, lost something of its monumental sobriety under the Greeks. It is frequently found among savages, but rarely appears amidst the artificial exaggeration of corrupt civilisation. The French, who,

up to the Revolution, were a nation of dancing-masters, were the least graceful people of Europe; and the Apollo of Belvidere could never have been imagined in the court of a Louis XV.

This gallery so rich and beautiful, through the munificence of the late and present pope, was but 'of bare walls' when Evelyn visited it in 1643; and he observes that, as he passed through it on his way to the vatican library, it was full of poor people, to the number of 1500 or 2000, 'to each of whom, in his passage to St. Peter's, the pope gave a mezzo-grosso' (half a farthing). This is a curious episode in the history of the palace of the Vatican—of that palace whose uses and magnificence furnished Milton with his splendid imagery alike of hell and heaven—his 'palace of Pandemonium, and that

'Where sceptred angels held their residence.'

The *library* of the vatican, described as it merits, would fill the pages of an ample volume. The locale is a palace in itself; and its galleries and various chambers might be visited as a splendid museum, had they no other attraction. One of the most striking circumstances in the greatest library of Europe is, that not a book is to be seen, although of MSS. alone there are said to be 30,000 volumes. The cases in which the collection is preserved give no indication of their contents; and the whole edifice, all campo d'ore and ultra-marine, looks rather like some Gothic hall of grotesque festivity than the retreat of learning. The principal gallery, 317 palmi in length, is divided into naves, separated by pillars; and the walls are painted with representations of the most celebrated ancient libraries, of general councils, and of the inventors of the characters of various languages. Low cabinets, richly and fantastically painted, surround this superb saloon, and contain the most precious of the MSS.; and tables of Egyptian granite, marble sarcophagi, and other fragments of antiquity, are scattered over its centre. Two vast corridors to the right and left, divided into various apartments, open out of this main gallery. Here are modern book cases filled with choice works; and objects of art, of great value and antiquity, are profusely scattered. In one of these is a picture of the design of the Façade of St. Peter's by Michael Angelo, far superior to that which has been adopted. From the hall of the papyrus, painted by Mengs, opens another spacious gallery, ornamented with gold and mirrors, and containing the most precious books in the collection; and cabinets devoted to medals, engravings, inscriptions, succeed, and terminate this wing. On the other side a suite of beautiful rooms, with columns of porphyry, are filled with book cases, decorated with Etruscan vases; and the wall is decorated with a series of paintings illustrating the trials of the late and present popes, during the Revolution:—the crowning and restoration of Pius VII., closes these fasti of papal sensibility and endurance.

The *Quirinal* is a stupendous fabric, only less vast than the Vatican, and crowns the Quirinal hill, which commands a noble view of the city. Pope Pius VI. did much to adorn both the palace and the Piazza del Monte Cavallo on

which it stands. He removed the obelisk which stood near the mausoleum of Augustus, to the front of the palace; and, not being able to displace the Coliseum, he carried off all that was moveable from the forum, and transported that gigantic vase of oriental granite to the Monte Cavallo, which now receives the waters of its beautiful fountain. The state apartments of the Quirinal are sufficiently noble; they were inhabited by the emperor of Austria and his family on his visit to Rome; and in their gaudy dress when we saw them, bore testimony to the still unpaid-for honors offered to the imperial guests. The gardens of the Quirinal are spacious and delightful, but encumbered with stones and marbles, as usual, disputing the soil with nature and vegetation. But all that is bright and fair in the Quirinal is brightest and fairest in that chapel in which the pope himself pontificates on Sundays and other holydays. When lighted by the mid-day beams, it looks like the temple of the sun, which once occupied its site. 'Here,' says lady Morgan, 'pictured saints appear as demi-gods; and the high altar exhibits a cross, brilliant and beautiful as that which lies on a lady's bosom. Here sounds that enchant, and odors that intoxicate, fill the air; and mysteries are consummated with forms so beautiful, and amidst objects so alluring, that the rigid or the ignorant might doubt whether he witnesses Christian ceremonies or heathen rites, and whether this is the temple of Apollo or the chapel of the pope.' The chapel of the Quirinal is on Sundays filled to suffocation. The tribunes on either side are occupied by the elegantes of London and Paris, Petersburg and Vienna, Cracow or New York. In the central nave the throng is composed of abbots, priors, and dignitaries in grand costume—the mamelukes of the church! Roman generals, all armed for the military service of the altar, the only service they have ever seen; monks, guards, friars, Swiss soldiers, and officers of state! Outside a cordon, drawn round the choir, are placed the foreign gentlemen. The choir, the scene of action, all brilliant and beautiful, is still a void. When the signal is given, the crowd divides! and the procession begins! Mutes and others form the *avant-garde* of the pageant, and lead the way.

'Then comes personified infallibility! feeble as womanhood! helpless as infancy! withered by time and bent by infirmity; but borne aloft, like some idol of Pagan worship, on the necks of men, above all human contact. The conclave follows, each of its princes robed like an eastern sultan! Habits of silk and brocade, glittering with gold and silver, succeeded by robes of velvet, and vestments of point lace, the envy of reigning empresses.*

* We must find room for the note of our spirited guide. 'The details of the cardinal's toilette, which, at my own very womanish desire, were exhibited to me, are minute, splendid, and numerous, beyond description; for every ceremony has its dress. On some days the cardinals dress and undress as often as the three Mr. Singletons in the farce. The *etole*, or scarf, is now a sash superbly tissue'd: it is a symbol of the lost innocence of man—not of the cardi-

The toilette of these church exquisites is perfect; not a hair displaced, not a point neglected, from the powdered toupee to the diamond shoe-buckle. The pope is at last deposited on his golden throne: his ecclesiastical attendants fold round him his ample caftan, white and brilliant as the nuptial dress of bridal queens! they arrange his dazzling mitre: they blow his nose; they wipe his mouth, and exhibit the representation of Divinity in all the disgusting helplessness of driveling caducity. His holiness being thus cradled on a throne to which emperors once knelt, the conservators of Rome, the caryatides of the church, place themselves meekly at its steps; and the manikin, who represents the Roman senate, takes his humble station near that imperial seat, more gorgeous than any the Cæsars ever mounted. Meantime the demigods of the conclave repose their eminences in their stalls on velvet cushions, and their caudatorj (or tail-bearers) place themselves at their feet. In the centre stand, or sit, on the steps of the high altar, the bishops with their superb mitres and tissue vestments. Then the choir raises the high hosannahs, the pope pontificates; and the temple of Jupiter never witnessed rites so imposing or so splendid. Golden censers fling their odors on the air! harmony the most perfect, and movements the most gracious, delight the ear and eye! At the elevation of the host, a silence more impressive than even this 'solemn concord of sweet sounds' succeeds; all fall prostrate to the earth; and the military, falling lower than all, lay their arms of destruction at the feet of that mystery, operated in memory of the salvation of mankind. When the ceremony is concluded, the procession returns as it entered. The congregation rush after; and the next moment the ante-room of this religious temple resembles the saloon of the opera. The abbots and priors mingle among the lay

nal's. The piviale is a mantle, like the ancient Irish cloak: it is of massive gold tissue, insupportably heavy. This represents the pastoral robe of the patriarchs (for all in the church, Catholic or Protestant, is borrowed from the Jews—Christ having left nothing to copy but virtue and self-denial). This piviale was originally pluviale, and worn (as its name imports) to keep out the weather, before gold brocades were invented. The Soutane is a truly eastern habit: it is of violet velvet or silk, and its long and flowing train is held up by the caudatori. This was surely not 'the cloak' which St. Paul left behind him 'at Troas.' Next comes the golden pianeilli, and the manipolo, of embroidered satin, which hangs on the arm, like a fine lady's reticule, and is the scrip of the patriarchal herdsman, in which he carried his bread and cheese. Then comes the camicia, a dress of the richest point lace. I saw three of these dresses belonging to one cardinal, said to be worth £2000; and I know it for a fact, that more than one petty reigning sovereign has endeavoured to wheedle his eminence out of a camicia worn upon state days. The mitres are of gold and silver, upon white or red grounds, according to the cardinal's various ranks. In private society their dress is a suit of black, edged with scarlet; scarlet stockings, and a little patch of red, called the calotte, on the crown of their heads, with their cardinal hat under the arm.

crowd, and the cardinals chat with pretty women, sport their red stockings, and ask their opinions of the pope's pontification, as a merveilleux of the opera at Paris takes snuff, and demands of his chere-belle, 'Comment trouvez vous ça, comtesse?'

The palace of the Lateran, though now uninhabited, is vast and imposing; and, though little of the original building remains, it is sufficiently antiquated to recal its ancient destination as the scene of much of the licentious dissipation and fierce feuds of popes and anti-popes in the dark ages. It commands a sublime view of the waste its lords have made;—of the Campagna, stretching to the base of the blue Albanian hills; its desert, here and there spotted with ancient ruins of the tombs of heroes, or imperial aqueducts, with the walls of villas, and wrecks of monuments which skirted the road from the gates of the Lateran to the suburbs of Naples. The church, or basilica, of San Giovanni Laterano, is the principal, and one of the oldest, as we have seen, in Rome.

In the baptistery (Battisterio Lateranense) adjoining the church, built by Constantine, he is said to have been baptised by St. Sylvester. It was ravaged by frequent invaders, and long remained in the lower ages in a state of absolute ruin and spoliation; until, attracting the notice of successive pontiffs, and particularly that of Gregory XIII. and Urban VIII., it took that character of richness which now distinguishes it. The baptismal font is an ancient urn of basalt, ornamented with gold and bronze. From its bosom the waters of life are still dispensed to the Jews, who annually seek regeneration at so much per head. This edifice (its great antiquity, its superb columns of porphyry, and fine cornices, all plunder from the ancient monuments of Rome, excepted) has but little to excite admiration. Two of its pictures, however, afford a curious historical evidence, worth noticing. One represents the council of Nice burning books written against the bishops. The other the breaking of the statues in the Roman temples (probably the rivals of the Apollo and the Antinous): a bishop, with the air of a conjurer, stands by, tossing his golden censer, and purifying the spot defiled by the works of Praxiteles and Phidias. This was before a bull was fulminated to prevent (but too late) the converting of marble statues into lime, to build dwelling houses.

Opposite to the great entrance of the palace stands the venerable chapel of the Scala Santa (holy steps), once a part of the ancient building. This chapel is the shrine of daily pilgrimage to the peasantry, many of whom were ascending its holy steps on their knees, on the several days that we passed by it. The veneration paid to this flight of stairs arises from the five centre steps, said to be part of the staircase of Pontius Pilate's house, which were sanctified by the blood of Christ. None can ascend it but on their knees; and lateral steps are provided for those whose piety may not lead them to genuflexion.

There are family mansions, here termed palaces, in great numbers; but the far greater part

are less remarkable for their architecture, than for their size and decorations: their spacious courts and porticos, their halls and lofty apartments, with the pillars, the marble, the statues, and the paintings, that place them on a level with royal residences in the north of Europe. The Palazzo Doria is one of the finest, presenting three large fronts, enclosing a spacious court. Its stair-case, supported by light pillars of oriental granite, leads to a magnificent picture gallery. The Palazzo Ruspoli has a still finer staircase, consisting of four flights, of thirty steps each, each step being composed of a single piece of marble, nearly ten feet long and two broad. The Corsini palace is also remarkable for its size, its furniture, and its gardens. The Palazzo Farnese occupies one side of a handsome square. Twelve massive pillars of Egyptian granite support the vestibule; three ranges of arcades rise one above the other around a spacious court; and noble apartments follow. The Palazzo Costaguti and Palazzo Mattei are chiefly rich in paintings. The Borgnese palace is remarkable for its porticoes, its columns, and its antiques. In the Palazzo Spada stands the celebrated statue of Pompey, at the foot of which Cæsar is supposed to have fallen. The Barberini palace has been much improved by the present prince, but serves chiefly to remind the reflecting Protestant of the wretched policy by which the illegitimate children and nephews of the popes have been formerly enriched. Here once reigned the famous beauty and humorist, Cecca Buffona, the mistress of cardinal Francisco Barberini, whose impudicity caused her to be publicly whipped in the streets of Rome.

Rome, like most other Catholic cities, is well supplied with inferior and antiquated hospitals. The largest, the Spedale di St. Spirito, is open indiscriminately to the poor of both sexes, the insane, and to foundlings. That of St. Michele is appropriated to the education of the children of the poor, but it receives likewise the sick and the aged. Here is also a house of correction.

The most splendid villas of Rome, as that of the Borghese, Farnesina, &c., are situated within the walls. The first was built by cardinal Scipio Borghese, the nephew of Paul V.; and, with its gardens and lake, occupies a space of nearly three miles in circumference. The interior is filled with antique and modern sculpture, pictures, and mosaics—without, its grounds are covered with casinos, temples, citadels, aviaries, and all that a gorgeous and false taste, with wealth beyond calculation, could crowd together: Mont-fauçon says 'there is nothing better worth seeing in Rome.'

The villa Pamfili-Doria, one of the finest in the neighbourhood of Rome, was erected in the seventeenth century, by the nephew of the Pamfili pope Innocent X., whose extravagant passion for his sister-in-law, Donna Olimpia Maldachini, is one of the most notable traits in his life. The grounds, woods, and gardens are truly delicious: the palace itself has all the generic features of such edifices, and is filled with pictures and statues, dreary and neglected.

The Villa Albani, raised in the middle of the last century by the late cardinal, and belonging

to the present cardinal Albani, is, according to lady Morgan, the most perfect and freshest of all Roman villas. 'It looks like some pure and elegant Grecian temple—a little Pantheon! dedicated to all the rural gods, with whose statues (the most perfect specimens of antiquities) its marble colonnades and galleries are filled. It might be deemed too ideal for a human habitation; yet is sufficiently commodious to be one; and, of all other villas, this alone realizes the preconceived image of fervid fancies of a true Italian villa. Its walls are encrusted with baso-relievoes—its corridors grouped with fauns and nymphs—its ceilings all azure and gold—its saloons perfumed by breezes, loaded with the odors of orange-flowers. Its gardens, studded with temples, command a view, terminated by a waving line of acclivities, whose very names are poetry. When I visited it, a distant blue mist veiled the intervening wastes of the Campagna, and the dews and lights of morning lent their freshness and lustre to a scene and fabric such as Love might have chosen for his Psyche when he bore her from the wrath of Venus. But, when the first glimpse of this vision faded, the true character of the Roman villa came forth; for artichokes and cabbages were flourishing amidst fauns and satyrs, that seemed chiselled by a Praxiteles! The eminentissimo padrone of this splendid villa rarely visits its wonders but in the course of a morning drive: and his gardens are hired out to a Roman marketman, to raise vegetables during the spring and winter. In summer even the custode vacates his hovel, and the Villa Albani is left in the undisputed possession of that terrible scourge of Roman policy and Roman crimes—the Mal-aria; the causes and effects all morally connected, and the strictest poetical justice every where visible.'

Rome contains, beside its celebrated Propaganda Fide, several literary associations, as the Arcadian academy, the archæological, the academia Tiberiana, the academy of the fine arts. A monthly publication, partaking of the nature of a review and magazine, appears under the title of *Giornale Arcadico de Scienze, lettere, ed arti*; and, since 1819, there has been published weekly a *Giornale enciclopedico*, containing chiefly translations on scientific subjects, along with some pieces of poetry. Of the libraries of Rome, the largest, after the Vatican, are the Augustines', the Dominicans', and those of the Barberini, Chigi, Colonna, and Corsini families; that of Collegio Romano has a museum of antiquities and cabinet of natural history. The university library is called, from its founder, pope Alexander VII., the Alexandrine library; and the library del Emo contains a collection of medals and mathematical instruments, together with a museum.

In 1835 the inhabitants of Rome amounted to 136,000, a number which seems to have formed, with little variation, its population for about a century. Of these, no fewer than 9000 are said to be Jews, who are restricted to a particular quarter, the gates of which are closed every night. This place is very dirty, but a similar charge may be made against all modern Rome. The number of inhabitants connected

with the church, as priests, monks, or nuns, is computed at another 8000. The manufacturing establishments, though small, are in considerable variety, viz. woollens, silks, velvets, hats, gloves, stockings, liquors, pommade, and artificial flowers. Rome has a bank, and Monte di Pietà, or house for advancing money on deposited goods. Its foreign trade is limited to imports of colonial articles, and a few manufactured goods: its exports consist of the produce of the adjacent country, viz. olive oil, alum, vitriol, puzziolano sand, anise, &c.

No part of the world has been more agitated by the French revolution and its consequences—none perhaps so much improved—as modern Rome. Its nobles were, at the latter end of the sixteenth century, a race of banditti: laying waste their native city, and carrying desolation and ruin into the bosom of domestic life. The people, always insurgents or slaves, were the most demoralised of Italy; and though the dark and cruel despotism of the clever Sixtus V., whose love of blood induced him to envy Elizabeth the cutting off of Mary's head, stemmed for a time the torrent of iniquities, and broke for ever the spirit of the Roman barons, yet at his death the people were but the more debased by the loss of their ferocity. During succeeding periods, on the testimony of all travellers, the civil and religious state of Rome was an anomaly in human society. The court of the Quirinal, like that of France under Louis XIII. and XIV., was directed by the intrigues of priests and courtiers: the cardinals governed by cabal, and all places were disposed of through their mistresses and their laquais. The princes or patricians, rich, idle, ignorant, and avaricious, were surrounded by dependents and parasites, the indigent followers of rank and opulence: the people, without domestic habits, lived like the commoners of nature, satisfied if bread and church ceremonies sustained life and amused it. The parasite came after the prince, and the beggar after the saint. The women of all ranks, divided into vestals and concubines, were either shut up in a convent, or let loose upon society, the mistresses of authorised paramours, and the wives of other women's lovers. The passions of all classes were unsubdued by education, unrestrained by law. Murder had its price, from a basket of figs to a purse of gold; and the murderer his asylum, from the high altar of the church to the cabinet of the palace. Assassination was a deed of nightly occurrence. In the midst of all this corruption of private manners, the inquisition placed its *sbirri* upon the intellect of the whole population. The capital punishments were barbarous, but rarely inflicted; and if the people sometimes suffered the torture, or submitted to the *estrapado*, they, in their turn, occasionally hung up a cardinal, or derided the vices of the conclave and the pontiff, through the medium of Pasquino. In 1786 cardinal Tortona so exasperated the people by his cruelties, in his office of grand inquisitor, that they dragged him from his carriage, and hung him on a gibbet in the street.

As there was no internal police, the public depended on the works of the Tarquins and the

Cæsars for their few accommodations: and the conduits for water, miraculously constructed during the darkest ignorance on the subject of hydraulics, were at the end of twenty centuries, and are still, the principal means of purification afforded for cleansing a city, which seems to have benefited but little by the advantages lent it by antiquity. The *Cloacæ Maxima* obtrude their neglected openings in vain; and streets lined with palaces, and palaces walled with marbles, have even now few sewers to carry off their accumulated filth.

Before Italy was conquered, Rome entered into the revolutionary projects of France. Hugo de Basseville, a man of letters and talent, was chosen by the national convention to sound the disposition of those who were no longer the population worked on by the eloquence of the monk Arnoldo, or the tribune Rienzi. Pius VI., who had refused to acknowledge the French republic, watched with jealous vigilance the motions of this emissary; and de Basseville affected to be occupied with the interests of the French academy at Rome. At length an imprudence on the part of de Basseville called forth the public opinion. After a dinner, given by him to the young men of the French academy, de Basseville drove with his wife and son to the Corso, permitting his footmen to mount the tricolor cockade. This was the signal of tumult. The street was accidentally or designedly filled with the common people and Trasteverini! A dreadful riot arose: de Basseville in vain sought to save himself by taking shelter at his banker's; he was pursued by the mob, and murdered. The first stab was given by a soldier of the pontifical guard. The French academy was next attacked and pillaged; the houses of foreigners were plundered; and, during the tumult, the virgin, whose name was the mot d'ordre, was seen in several of the churches to open her eyes (lest the people should open theirs), and to give testimony of the part she took in this crusade to her honor. But if, in 1793, an emissary of the convention was assassinated in Rome, in 1797 the Gauls of the eighteenth century had passed the Rubicon, conquered Romagna, the duchy of Urbino, and the Marsh of Ancona. The murder of general Duphot at Rome, under the eyes of the accredited ambassador of France, urged on the fate of the 'Niobe of Nations.' The military occupation of Rome followed, and the proud capital of the world became a French province, by the name of the department of the Tiber!

Whatever reform, or feature of change, may be found in the circles of Roman society, belongs almost exclusively to the Cittadini of the best description, including persons of liberal profession, artists, some of the employés, and the mercanti di campagna, or gentlemen farmers or agriculturists, whose landed property has grown out of the sales of the church estates during the Revolution; and who, though chiefly resident at Rome, live by the produce of their farms. If something of cleanliness and order is visible in a Roman ménage, if stairs are found lighted at night, and rooms look not dirty by day, the innovation on ancient manners is only to be found in the dwellings of this respectable class.

It is in this class also that what little social intercourse is kept up at Rome is most frequent. It was this class that chiefly participated in the benefits of the recent changes; and they look back to the past with a regret in which personal interests and self-love may have no inconsiderable influence. While the Roman shopkeeper (who lolls and lounges in his bulk all day, and asks a price à capriccio for his French and British wares), seeks his recreation at the pulicorda or the comic opera; while the inferior dealer knows no enjoyment beyond stuffing, with twenty others, into a hired calesh, on Sunday noons, and driving through the hot and dirty streets, 'per fare il pizzacarolo,' the cittadini have more refined sources of recreation; they hold a musical academia in each other's houses, or assemble to assist at a 'tragedia alla tavola' (the reading round a table some favorite tragedy of Alfieri or Monti); or, if the higher order, they attend the conversazione of some mezza dama, or half lady; a class of provincial nobility, who come from the cities of La Marca, or the legations, to pass the winter at Rome, and who, if permitted by courtesy to visit a signora principessa, are never presumed to be of her circle, nor admitted to the house of such ambassadors as rightly understand the true Roman 'dignità!'

'Apart from the great mass of the population, separated by the distinctions of ages, foul and

fatuous as an Indian fakeer, and sunk in the dusky niche of its splendid sty, vegetates the Roman patrician, or prince of the empire! The morning is lounged away by the heir of the Gregories and the Clements in a dusty great coat (the modern Roman toga), rarely changed at any season of the day for a better garb. An early, but not a princely dinner, follows; succeeded by the siesta and the Corso, a funereal drive in a long narrow street, relieved in summer by a splashy course in the Piazza Navona. The prima sera is passed in some noble palace, where, at the end of a long suite of unlighted rooms, sits the signora principessa, twinkling her eyes before a solitary lamp, or pair of candles, whose glimmer is scarce visible in the gloomy space, which a fire never cheers; while the caldanini, whose embers have expired in the atmosphere of her petticoat, is presented to the most distinguished of her visitors; and such a conversation ensues as minds without activity or resource may be supposed to supply: a sermon of the popular preacher, Padre Pacifico, if it be Lent; a cecisbio faithless or betrayed, if at the carnival, fill up the time till the opera commences, or until the only two genuine Roman houses open to society in Rome light up their Rouge et noir tables, the sole object for which company is received or for which company go.'

ROMFORD, a market town of Essex, situated on the road from London to Colchester; seventeen miles south-west of Chelmsford, and twelve E. N. E. of London. This town is supposed by Stukeley to occupy the site of the Roman station Duroilitum, and he conjectures that its present name is a contraction for Romanford, in which opinion he is supported by Mr. Lethieullier. Lysons, however, derives it from the Saxon words Rom and Ford (the Broad-Ford), in allusion to an ancient ford over a rivulet which flows past the western extremity of the town. Romford is first mentioned in the red book of the exchequer; where it is said that, in 1166, Roger Bigod, duke of Norfolk, held 'the wood of Romford by serjeancy, and payment of 5s. a-year.' It is next noticed in 1277, at which time the manor formed part of the possessions of Adam de Cretingy. It afterwards passed to Thomas de Brotherton, earl of Norfolk, from whom it descended by marriage to the Mowbrays, dukes of Norfolk; but on the death of John, the fourth duke, without male issue, in 1477, it became vested in James lord Berkeley. The town of Romford consists chiefly of one long street running along the high road. Near the middle of the town stands the market-house and town-hall which were repaired in 1768, at the expense of the crown. The church, which is a chapel of Hornchurch, is an ancient structure, probably erected about the commencement of the fifteenth century, when the inhabitants obtained a bull from the pope, authorising them to consecrate a cemetery adjoining the town, for the burial of their dead, who had previously been carried to Hornchurch burying-ground. It is dedicated to the Virgin Mary and Edward the

Confessor, and consists of a nave, chancel, and north aisle, with a tower at the west end. In the east window of the chancel is a whole length on glass of Edward the Confessor. Not far from the church is a clarity-school for forty boys, and another for twenty girls, founded and endowed in 1728; and at a short distance from the western end of the town are barracks for the accommodation of a regiment of cavalry, erected in 1795. Romford is governed by a bailiff and wardens, who, though forming no corporation, are empowered by letters patent to hold a weekly court for the trial of all causes, whether civil or criminal, high treason itself not excepted. The privilege of holding a weekly market was first granted to the inhabitants by king Henry III. To the westward, about two miles, lies Hainault Forest, in which is a very remarkable tree, called Fairlop-oak, which Gilpin informs us, in his Remarks on Forest Scenery, is traced by tradition 'half way up the Christian era.' It is thirty-six feet in girth near the base or root, and spreads its branches over a circumference of 300 feet. Round the Fairlop-oak, on the first Friday in July, is held an annual fair. Markets on Monday for hogs, Tuesday for calves, sheep, and lambs, and Wednesday for corn, cattle, poultry, butchers' meat, &c.

ROMILLY (Sir Samuel), K. C., an eminent modern chancery advocate, was the son of a jeweller, of French extraction, who carried on business in Frith Street, Soho. Here he was born, March 1st, 1757, and, receiving a private education, was placed in the office of a solicitor, which he quitted to study for the bar, to which he was called in 1783. His chief practice was long confined to draughts in equity, but he gradually

rose to distinction in court, and agreeing in his general politics with the whigs, during the administration of Mr. Fox and lord Grenville, he was appointed solicitor-general. In parliament he was highly distinguished by his talent in debate, and particularly by the eloquence with which he pleaded for a revision of the criminal code, with a view to the limitation of capital punishment. On this subject he also composed a very able pamphlet. Sir Samuel also published a remonstrance against the creation of the office of vice-chancellor; and was in the height of his popularity, when a nervous disorder, produced by grief at the death of his lady, seems to have deprived him of reason, and in a fit of temporary frenzy he terminated his existence, November 2d, 1818.

ROMNEY, OLD, a Post town of Kent, once a place of note, and a sea-port at the mouth of the Rother, but the river having changed its course to Rye, and the sea having receded, it has long since fallen to decay. Here is an old church in the massive circular style.

ROMNEY, NEW, a borough and market town of Kent, seven miles south-west from Hith, and seventy-one and a half south-east from London. This place, though not so ancient as Old Romney, is recorded to have been a flourishing town at the time of the conquest, having had five parishes. The town consists chiefly of one broad, well-paved street, intersected by another smaller one. St. Nicholas' church is an ancient structure, consisting of three aisles and three chancels, with a square tower at the western extremity. The charitable institutions of the town are an hospital and a school-house. The market-house is a modern building, standing in the main street. The chief trade of this place is grazing cattle on Romney Marsh. This marsh is a rich tract of land of about 50,000 acres, defended from the encroachments of the sea, by an embankment three miles in length, twenty feet high, twenty feet broad at the top, and nearly 300 at the bottom. Towards the sea it is defended by piles and stakes, at an expense of about £4000 per annum, which is raised by an assessment on the proprietors of the marsh. This is called Dymchurch Wall, along which there is a good road for carriages. The corporation consists of a mayor, twelve jurats, chamberlain, recorder, town-clerk, &c., and is one of the cinque-ports, though its harbour has long been destroyed; the hall, where the courts of the Cinque-Ports are held, is near the church. It sent two members to parliament, the right of election being in the mayor, but was disfranchised by the Reform bill in 1832. Market-day, Thursday.

ROMNEY (George), a modern painter, was born in Lancashire, in 1734. After an attempt of his father to settle him in trade, he was placed with an artist, and in 1762 came to London. In 1765 he gained a prize from the Society for the Encouragement of Arts and Sciences, for a picture of the Death of King Edmund, and in 1773 went to Italy for two years. On his return he enjoyed the most uninterrupted success in his profession, painting in one year portraits to the amount of £3635. He also gave illustrations of Boydell's Shakspeare. Romney died in 1802.

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He is not always happy in blending his shades particularly in his back-grounds, but his style of coloring is broad and simple, and in his flesh he was very successful.

ROMP, n. s. Fr. *ramper*. To gambol; a rude, boisterous, playful girl: to play rudely or boisterously.

She was in the due mean between one of your affected courtesying pieces of formality, and your romps, that have no regard to the common rules of civility. *Arbuthnot.*

In the kitchen, as in your proper element, you can laugh, squall, and romp in full security. *Swift.*

Romp loving miss
Is hauled about in gallantry robust. *Thomson.*
Men presume on the liberties taken in romping. *Clarissa.*

ROMSEY, or RUMSEY, a market town and parish of Hampshire, eight miles N.N.W. of Southampton, and seventy-four west by south of London. It is situated on the little river Test, which falls into Southampton Bay, and was formerly noted for its monastery of Benedictines, founded by king Edgar, and of which the daughter of king Stephen was an abbess. The church, formerly belonging to the monastery, is a noble edifice, built in the form of a cross, and arched with stone in the Saxon style; it contains several curious monuments. Besides the church, there is a meeting house for Presbyterians; an almshouse for six widows; a charity-school, and a free-school. There is also a town-hall, and an audit-house, below which are accommodations for the market people. The corporation consists of a mayor, recorder, six aldermen, and twelve capital burgesses. The principal trade of the town is in shalloons, sacking, and paper, and it has been noted for the excellence of its ale. The market, on Saturday, is a good corn market.

ROMULUS, the son of Rhea Silvia, the founder and first king of Rome. See **ROME**. On a medal of Antoninus Pius, he appears like Mars Gradivus, with a spear in one hand, and a trophy on the opposite shoulder. It is very probable that several of the supposed figures of Mars, with a trophy so placed, belong rather to Romulus, who was the inventor of trophies among the Romans.

The whole story of the birth of this hero is represented in a relieve at the villa Mellini in Rome. It is divided into four compartments. In the first Mars is going to Rhea as she sleeps by the Tiber. In the second she is sitting with her twins in her lap, whilst Amulius seems to be upbraiding her. In the third the two infants, Romulus and Remus, are exposed on the banks of the river; and the fourth represents them as cherished by the wolf, whilst Faustulus stands surprised at their strange situation. This work is but indifferent; however, the particulars of it are to be met with in other works of better ages. The descent of Mars to Rhea is not uncommon; and the circumstance of Romulus and Remus being suckled by the wolf is very common on medals, gems, and statues.

RONALDSEY, NORTH, the most northern island of Orkney, two miles long, and one broad; six miles north of Sandy. The surface is fiat, the soil sand, and clay. The coasts af-

D

ford sea ware, from which many tons of kelp are made annually.

RONALDSEY, SOUTH, the most southern island of Orkney, about six miles long, and three broad; bounded by the German Ocean on the east, by the Pentland Frith on the south and west, and by the Ferry of Water Sound, which separates it from Burray, on the north. The climate is excellent; the surface is pretty level; the soil various, but fertile. It has several good harbours, which will admit ships of 600 tons, as Widewall Bay on the west, and St. Margaret's Hope on the north. It is much frequented by lobster smacks. This island has three headlands; viz. Barsick, Halero, and Stoic's Head.

RONCESVALLES, a valley in the province of Navarre, Spain, between Pampluna and St. Jean Pied du Port, surrounded by mountains, one of which, the Ronceval, is among the highest of the Pyrenees. This valley is celebrated for the defeat of Charlemagne by Loup, duke of Gascony, assisted by the Saracens. A pillar erected on the spot, in commemoration of the victory, was destroyed by the French in 1794. The small town of this name is fourteen miles N. N. E. of Pampeluna.

RONDA, a large but uninteresting town of Granada, Spain, except in respect to its situation. This is most romantic, and its natural curiosities are not few. It stands on the summit of a rocky mountain, divided by a deep ravine or fissure, which winds around the town, the river rushing along its bottom. This ravine is full of abrupt cliffs and crags, lightly covered with earth: over the fissure there are two bridges, each of a single arch: one is at the height of 120 feet above the water, the other at that of 280 feet! This arch is 110 feet in span, and supported by pillars of masonry from the bottom of the river. Seen from this elevation, the Guadario is dwindled to a brook. Hardly any scene can be more striking than the view from below this bridge, of part of the houses and spires of the town, which seem to overhang the spectator. The public walk is paved with marble, and bordered with vine branches in trellises, which in hot weather afford an agreeable shade. Leather, and silk stuffs are manufactured here, and the environs are well cultivated, and fertile in corn, wine, and oil. Inhabitants 20,000. The plain abounds in cattle, and the hills in game. The Sierra de Ronda, a chain of mountains which takes its name from this town, is of considerable height, and extends all the way to Gibraltar. About a league south-east of the town is the Cresta de Gallo, so called from the supposed resemblance to a cock's comb. It is frequently the first land discerned at sea, on approaching Cadiz, and contains mines of iron, tin, and lead.

RONDELETIA, in botany, a genus of the monogynia order, and pentandria class of plants; cor. funnel-shaped: caps. bilocular, inferior, and polyspermous, roundish, and crowned. Species eleven, natives of the West Indies.

RONDE, **RUONDE ISLAND**, or **REDONDA**, one of the Grenadines, or dependencies of the island of Grenada, in the West Indies; situate about mid-way between Carriacou or Carriouacou, and the north end of Grenada, about six miles

north of Grenada, and eleven south-west of Carriouacou. It contains about 500 acres of land applied to pasturage, and the cultivation of cotton. Long. 61° 39' W., lat. 12° 19' N.

RON'DLE, *n. s.* From round. A round mass.

RONDO (Italian), or *Rondeau* (French.) A musical composition consisting of three strains; the first closing in the original key, while each of the others gradually conducts the ear in a natural easy manner back to the first strain. The term Rondo, or going round, implies that the melody goes round after the second and third strain to the first, with which it concludes.

RON'ION, *n. s.* Fr. *rognon*, the loins. A fat bulky woman.

Give me, quoth I;
Aroint thee, witch, the rump fed *ronyon* cries.

Shakspeare.

RONSARD (Peter) de, a French poet, born in Vendomois, in 1524. He was descended of a noble family, and was educated in Paris in the college of Navarre. He then became page to the duke of Orleans, and afterwards to king James V. Ronsard continued in Scotland with king James upwards of two years, and afterwards went to France, where he was employed by the duke of Orleans in several negotiations. He accompanied Lazarus de Baif to the diet of Spire, and studied the Greek language with his son under Dorat. He cultivated poetry with such success that he acquired the appellation of the Prince of the Poets of his time. Henry II., Francis II., Charles IX., and Henry III. loaded him with favors. Having gained the first prize of the Jeux Floraux, the city of Thoulouse caused a Minerva of massy silver of considerable value to be made and sent to him. This present was accompanied with a decree declaring him The French Poet, by way of distinction. Ronsard afterwards made a present of his Minerva to Henry II. Mary queen of Scots gave him a very rich set of table plate. He wrote hymns, odes, a poem called the Franciad, eclogues, epigrams, sonnets, &c. Ronsard, though it is doubtful whether he ever was in orders, held several benefices in commendam; and he died at one of these, Saint-Cosme-les-Tours, in 1585, being then sixty-one years of age. Ronsard's poems appeared in Paris in 1567, in six vols., 4to., and in 1604, in ten vols., 12mo.

RON'T, or } *Goth. rian naut.* An animal

RUNT, *n. s.* } stunted in the growth.

My ragged ronts all shiver and shake,
As doe high towers in an earthquake;
They wont in the wind, wag their wriggle tails,
Peack as a peacock, but nought it avails.

Spenser.

ROOD, *n. s.* From rod. the fourth part of an acre in square measure.

I've often wished that I had clear,
For life, six hundred pounds a-year,
A terras-walk, and half a rood
Of land, set out to plant a wood. *Swift.*

No stately larch-tree there expands a shade
O'er half a rood of Larisséan glade. *Harte.*

Rood, *n. s.* Sax. *roþe*; Goth. *roda*. The cross; sometimes an image of a saint.

By the holy rood,
I do not like these several councils. *Shakspeare.*

ROOF, *n. s. & v. a.* } Sax. *hroþ*; Goth. *raf*.
 Roof'y, *adj.* } In the plural Sidney has
 rooves: now obsolete. The cover of a house;
 any covering: to cover with a roof.

Her shoulders be like two white doves,
 Perching within square royal rooves. *Sidney.*
 From the magnanimity of the Jews, in causes of
 most extreme hazard, those strange and unwonted
 resolutions have grown, which, for all circumstances,
 no people under the roof of heaven did ever match.
Hooker.

Return to her, and fifty men dismissed!
 No, rather I abjure all roofs, and chuse
 To wage against the enemy o' the' air. *Shakspeare.*
 Swearing till my very roof was dry
 With oaths of love. *Id. Merchant of Venice.*
 Here had we now our country's honour roofed,
 Were the graced person of our Banquo present.
Shakspeare.

Some fishes have rows of teeth in the roofs of their
 mouths; as pike, salmons, and trouts.
Bacon's Natural History.

I'll tell all strictly true,
 If time, and foode, and wine enough accrue
 Within your roofe to us; that freely we
 May sit and banquet. *Chapman.*
 Large foundations may be safely laid;
 Or houses roofed, if friendly planets aid. *Creech.*
 He entered soon the shade
 High roof, and walks beneath, and alleys brown.
Milton.

In thy fane, the dusty spoils among,
 High on the burnished roof, thy banner shall be hung.
Dryden.

Snakes,
 Whether to roofy houses they repair,
 Or sun themselves abroad in open air,
 In all abodes of pestilential kind
 To sheep. *Id. Georgicks.*
 I have not seen the remains of any Roman build-
 ings that have not been roofed with vaults or arches.
Addison.

A Roof is the covering of a building, by which
 its inhabitants or contents are protected from the
 injuries of the weather. It is the essential part
 of a house, and is often used to express the
 whole. To come under a person's roof is to
 enjoy his protection and society, to dwell with
 him. Tectum was used in the same sense by
 the Romans. To be within our walls rather ex-
 presses the being in our possession: a roof
 therefore is not only an essential part of a
 house, but it even seems to be its characteristic
 feature. See ARCHITECTURE & CARPENTRY.

The Greeks, who have perhaps excelled all
 nations in taste, and who have given the most
 perfect model of architectonic ordonnance with-
 in a certain limit, never erected a building which
 did not exhibit this part in the most distinct
 manner; and though they borrowed much of
 their model from the orientals, as is evident to
 any who compares their architecture with the
 ruins of Persepolis, and of the tombs in the
 mountains of Sciraz, they added that form of
 roof which their own climate taught them was
 necessary for sheltering them from the rains.
 The roofs in Persia and Arabia are flat, but those
 of Greece are without exception sloping. It
 seems therefore a gross violation of the true
 principles of taste in architecture (at least in
 the regions of Europe), to take away or to hide
 the roof of a house; and it must be ascribed

to that rage for novelty which is so powerful in
 the minds of the rich. Our ancestors seemed to
 be of a very different opinion, and turned their
 attention to the ornamenting of their roofs as
 much as any other part of a building. They
 showed them in the most conspicuous manner,
 running them up to a great height, broke them
 into a thousand fanciful shapes, and stuck them
 full of highly dressed windows. We laugh at
 this, and call it Gothic and clumsy; and our
 great architects, not to offend any more in this
 way, conceal the roof altogether by parapets,
 balustrades, and other contrivances. Our
 forefathers certainly did offend against the
 maxims of true taste, when they enriched a part
 of a house with marks of elegant habitation,
 which every spectator must know to be a cum-
 bersome garret: but their successors no less
 offend, who take off the cover of the house alto-
 gether, and make it impossible to know whether
 it is not a mere skreen or colonnade. The
 architect is anxious to present a fine object,
 and a very simple outline discusses all his con-
 cerns with the roof. He leaves it to the car-
 penter, whom he frequently puzzles (by his
 arrangements) with coverings almost impossible
 to execute. Indeed it is seldom that the idea of
 a roof is admitted by him into his great com-
 positions. A pediment is often stuck up in the
 middle of a grand front, in a situation where a
 roof cannot perform its office; for the rain which
 is supposed to flow down its sides must be re-
 ceived on the top of the level buildings which
 flank it. This is a manifest incongruity. The
 tops of dressed windows, trifling porches, and
 sometimes a projecting portico, are the only
 situations in which we see the figure of a roof
 correspond with its office. Having thus lost
 sight of the principle, it is not surprising that
 the draughtsman (for he should not be called
 architect) runs into every whim: and we see
 pediment within pediment, a round pediment, a
 hollow pediment, and, the greatest of all absurd-
 ities, a broken pediment, which is as ridiculous
 as a hat without its crown. But, when one
 builds a house, ornament alone will not do. We
 must have a cover; and the enormous expense
 and other inconveniences which attend the con-
 cealment of this cover by parapets, balustrades,
 and screens, have obliged architects to consider
 the pent roof as proper, and to regulate its form.
 A high pitched roof will undoubtedly shoot off
 the rains and snows better than one of a lower
 pitch. The wind will not so easily blow the
 dropping rain in between the slates, nor will it
 have so much power to strip them off. It will
 exert a smaller thrust on the walls, both because
 its strain is less horizontal, and because it will
 admit of lighter covering. But it is more ex-
 pensive, because there is more of it. It requires
 a greater size of timber to make it equally strong,
 and it exposes a greater surface to the wind.
 There have been great changes in the pitch
 of roofs: our forefathers made them very high,
 and we make them very low. It does not, however,
 appear that this change has been altogether
 the effect of principle. In the simple un-
 adorned habitations of private persons, every
 thing comes to be adjusted by an experi-

ence of inconveniences which have resulted from too low pitched roofs; and their pitch will always be nearly such as suits the climate and covering. Our architects, however, go to work on different principles. Their professed aim is to make a beautiful object. The sources of the pleasures arising from what we call taste are so various, so complicated, and so whimsical, that it is almost in vain to look for principle in the rules adopted by our professed architects. Much of their practice results from a pedantic veneration for the beautiful productions of Grecian architecture. Such architects as have written on the principles of the art in respect of proportions, or what they call the ordonnance, are much puzzled to make a chain of reasoning; and the most that they have made of the Greek architecture is, that it exhibits a nice adjustment of strength and strain. But, when we consider the extent of this adjustment, we find that it is wonderfully limited. The whole of it consists of a basement, a column, and an entablature; the entablature exhibits something of a connexion with the frame-work and roof of a wooden building; and it originated from this in the hands of the orientals, from whom the Greeks borrowed their forms and their combinations. We could easily show in the ruins of Persepolis, and among the tombs in the mountains (which were long prior to the Greek architecture), the fluted column, the base, the Ionic and Corinthian capital, and the Doric arrangement of lintels, beams, and rafters, all derived from unquestionable principle. The only addition made by the Greeks was the pent roof; and the changes made by them in the subordinate forms of things are such as might be expected from the exquisite judgment of beauty. But the whole of this is very limited; and the Greeks, after making the roof a chief feature of a house, went no further, and contented themselves with giving it a slope suited to their climate. This we have followed, because in the milder parts of Europe we have no cogent reason for deviating from it; and if any architect should deviate greatly, in a building where the outline is exhibited as beautiful, we should be disgusted: but the disgust, though felt by almost every spectator, has its origin in nothing but habit. In the professed architect or man of education the disgust arises from pedantry; for there is not such a close connexion between the form and uses of a roof as shall give precise determinations; and the mere form is a matter of indifference. We should not therefore reprobate the high-pitched roofs of our ancestors, particularly on the continent. It is there where we see them in all the extremity of the fashion, and the taste is by no means exploded as it is with us. A baronial castle in Germany and France is seldom rebuilt in the pure Greek style, or even like the modern houses in Britain; the high pitched roofs are retained. We should not call them Gothic, and ugly because Gothic, till we show their principle to be false or tasteless. It will be found quite the reverse; and that, though we cannot bring ourselves to think them beautiful, we ought to think them so. The construction of the Greek architecture is a transference of the practices that are necessary in a wooden building to a

building of stone. To this the Greeks have adhered, in spite of innumerable difficulties. Their marble quarries, however, put it in their power to retain the proportions which habit had rendered agreeable. But it is next to impossible to adhere to these proportions with free-stone or brick, when the order is of magnificent dimensions. Sir Christopher Wren saw this; for his mechanical genius was equal to his taste. He composed the front of St. Paul's church in London of two orders, and he coupled his columns; and still the lintels which form the architrave arc of such length that they could carry no additional weight, and he was obliged to truss them behind. Had he made but one order, the architrave could not have carried its own weight. It is impossible to execute a Doric entablature of this size in brick. It is attempted in a very noble front, the Academy of Arts in St. Petersburg. But the architect was obliged to make the mutules and other projecting members of the cornice of granite, and many of them broke down by their own weight. Here is surely an error in principle. Since stone is the chief material of our buildings, ought not the members of ornamented architecture to be refinements on the essential and unaffected parts of a simple stone building? There is almost as much propriety in the architecture of India, where a dome is made in imitation of a lily or of some other flower inverted, as in the Greek imitation of a wooden building. The principles of masonry, and not of carpentry, should be seen in our architecture, if we would have it according to the rules of just taste. Now this is the characteristic feature of what is called the Gothic architecture. In this no dependence is had on the transverse strength of stone. No lintels are to be seen; no extravagant projections. Every stone is pressed to its neighbours, and none is exposed to a transverse strain. The Greeks were enabled to execute their colossal buildings only by using immense blocks of the hardest materials. The Norman mason could raise a building to the skies without using a stone which a laborer could not carry to the top on his back. The architects studied the principles of equilibrium; and, having attained a wonderful knowledge of it, they indulged themselves in exhibiting remarkable instances. We call this false taste, and say that the appearance of insecurity is the greatest fault. But this is owing to our habits; our thoughts may be said to run in a wooden train, and certain simple maxims of carpentry are familiar to our imagination; and in the careful adherence to these consists the beauty and symmetry of the Greek architecture. Had we been as much habituated to the equilibrium of pressure, this apparent insecurity would not have met our eye: we should have observed the strength, and we should have relished the ingenuity. The Gothic architecture is perhaps entitled to the name of rational architecture, and its beauty is founded on the characteristic distinction of our species. It deserves cultivation; not the pitiful, servile, and unskilled copying of the monuments; this will produce incongruities and absurdities equal to any that have crept into the Greek architecture; but let us examine with

attention the nice disposition of the groins and spandrels; let us study the tracery and knots, not as ornaments, but as useful members; let us observe how they have made their walls like honey-combs, and admire their ingenuity as we pretend to admire the instinct infused by the Great Architect into the bee. All this cannot be understood without mechanical knowledge; a thing which few of our professional architects have any share of. Thus would architectonic taste be a mark of skill; and the person who presents the design of a building would know how to execute it without committing it entirely to the mason and carpenter. The same principles of mutual pressure and equilibrium have a place in roofs and many wooden edifices; and if they had been as much studied as the Normans and Saracens seem to have studied such of them as were applicable to their purposes, we might have produced wooden buildings as far superior to what we are familiarly acquainted with, as the bold and wonderful churches still remaining in Europe are still superior to the timid productions of our stone architecture. The centres used in building the bridge of Orleans and the corn-market of Paris are instances of what may be done in this way. The last-mentioned is a dome of 200 feet diameter, built of fir planks; and there is not a piece of timber in it more than nine feet long, a foot broad, and three inches thick. The Norman architects frequently roofed with stone. Their wooden roofs were in general very simple, and their professed aim was to dispense with them altogether. Fond of their own science, they copied nothing from a wooden building, and ran into a similar fault with the ancient Greeks. The parts of their buildings which were necessarily of timber, were made to imitate stone-buildings; and Gothic ornament consists in cramming every thing full of arches and spandrels. Nothing else is to be seen in their timber works, nay even in their sculpture. Look at any of the maces or sceptres still to be found about the old cathedrals; they are all silver steeples. But there appears to have been a rivalry in old times between the masons and the carpenters. Many of the baronial halls are of prodigious width, and are roofed with timber; and the carpenters appeared to have borrowed much knowledge from the masons of those times, and their wide roofs are frequently constructed with great ingenuity. Their aim, like the masons, was to throw a roof over a very wide building without employing great logs of timber. We have seen roofs sixty feet wide without having a piece of timber in them above ten feet long and four inches square. They are very numerous on the continent. Indeed Britain retains few monuments of private magnificence. Aristocratic state never was so great with us; and the rancor of our civil wars gave most of the performances of the carpenter to the flames. Westminster Hall exhibits a specimen of the false taste of the Norman roofs. It contains the essential parts indeed, very properly disposed; but they are hidden, or intentionally covered, with what is conceived to be ornamental; and this is an imitation of stone arches, crammed in between slender pillars, which hang down from the principal frames, trusses, or

rafters. In a pure Norman roof, such as Tarnaway Hall, the essential parts are exhibited as things understood, and therefore relished. They are refined and ornamented; and it is here that the inferior kind of taste, or the want of it, may appear. We do not mean to defend all the whims of our ancestors, but we assert that it is no more necessary to consider the members of a roof as things to be concealed like a garret or privy, than the members of a ceiling, which form the most beautiful part of the Greek architecture. Should it be said that a roof is only a thing to keep off the rain, it may be answered, that a ceiling is only to keep off the dust, or the floor to be trodden under foot, and that we should have neither compartments in the one, nor inlaid work or carpets on the other. The structure of a roof may therefore be exhibited with propriety, and made an ornamental feature. This has been done even in Italy. The church of St. Maria Maggiore in Rome, and several others, are specimens; but the forms of the principal frames of these roofs, which resemble those of our modern buildings, are very unfit for agreeable ornament. Our imaginations have not been made sufficiently familiar with the principles, and we are rather alarmed than pleased with the appearance of the immense logs of timber which form the couples of these roofs, and hang over our heads with every appearance of weight and danger. It is quite otherwise with the ingenious roofs of the German and Norman architects. Slender timbers, interlaced with great symmetry, and thrown by necessity into figures which are naturally pretty, form altogether an object which no carpenter can view without pleasure. And why should the gentleman refuse himself the same pleasure of beholding scientific ingenuity? The roof is in fact the part of the building which requires the greatest degree of skill, and where science will be of more service than in any other part. The architect seldom knows much of the matter, and leaves the task to the carpenter. The carpenter considers the framing of a great roof as the touchstone of his art; and nothing indeed tends so much to show his judgment and his fertility of resource. It must therefore be very acceptable to the artist to have a clear view of the principles by which this difficult problem may be solved in the best manner, so that the roof may have all the strength and security that can be wished for, without an extravagant expense of timber and iron. Mechanical science can give great assistance in this matter. The framing of carpentry, whether for roofs, floors, or any other purpose, affords one of the most elegant and most satisfactory applications which can be made of mechanical science to the arts of common life. But the practical artist is seldom possessed even of the small portion of science which would almost insure his practice from all risk of failure; and even our most experienced carpenters have seldom any more knowledge than what arises from their experience and natural sagacity. The most approved author in our language is Price, in his *British Carpenter*. Mathurin Jousse is in like manner the author most in repute in France: and the publications of both these authors are

void of every appearance of principle. It is not uncommon to see the works of carpenters of the greatest reputation tumble down, in consequence of mistakes from which elementary knowledge would have saved them. See ARCHITECTURE.

In the Middlesex Report on Architecture, it is observed, in speaking of the roofs of houses, that pantiles are so easily heated through by the sun, during the summer months, that the rooms underneath are as hot as an oven; while, in the winter season, in every common frost, these tiles are so completely frozen through as to become as cold as a covering of ice. These extremes must consequently have a very bad effect on the health of the inhabitants. The blue slates are so very thin as to be equally liable to the same objection, particularly as they are now laid on most of our fashionable houses, under Wyatt's patent. They are rather better when laid on in the common manner, that is, on double laths, but much better on boards. Plain tiles make a considerably more temperate covering for houses than either pantiles or slates, by reason of their being laid double and in mortar, and thereby forming a much thicker and closer roof. In this they are nearly equalled by the thick or stoue slating of the midland counties; they might also be glazed of a slate color; in which case they would make a roof more handsome, temperate, and durable, than any other covering material now known.

Other substances have been had recourse to with this intention. In different parts of the country, cements of various kinds, and coarse paper laid over with resin, tar, &c., and other similar matters, have been tried, but with no very promising success as to their application. In some parts of Devonshire, though slate is by no means difficult to be procured, a substitute for that sort of covering is, Mr. Vancouver asserts, getting very much into use, which is prepared in the following manner:—Three parts of whitening, five of sand, one of pounded charcoal, and one of bone-ashes, to a barrel of common tar, to which are added four pounds of black resin; the two last materials are to be melted together, and, when boiling, the other ingredients are to be added in small quantities, keeping them constantly stirred and in motion over the fire, until the whole mass becomes of a consistence fit for use. Then the roof, being previously covered over with sheathing-paper securely nailed down, is to be carefully and evenly spread with the liquid hot from the copper, to the thickness of about three-quarters of an inch; which will cost, at the cauldron, about thirty-five shillings for each square of ten feet. The same measure of the common slate roof will cost about thirty-two shillings. The roofs for this sort of composition are pitched very flat, and, from the lightness of the scantling which is necessary in their construction, come considerably cheaper than those required for carrying slate or tiles. Materials of the reed and heath kinds have also been tried as coverings for the roofs of farm-houses and cottages, in places where they are capable of being procured in sufficient quantities for such purposes; and, though they are considerably more durable than common straw thatch, they

are subject to all the inconveniencies and objections of that sort of covering.

Thatch was formerly in general use for covering the roofs of all farm-buildings; but it is objectionable on many accounts, particularly as a hiding-place for insects, birds, and vermin; and as extremely perishable in its nature, subject to be much damaged by high winds, and of course liable to frequent repairs; and, above all, highly dangerous from its combustible nature. But Mr. Middleton thinks that it keeps out the summer's heat and winter's cold more effectually than any other material now in use; while, as it is not quite so compact and slightly as slates or tiles, and the straw being of such value for other purposes, it will probably be superseded by them. Tiles, though little exposed to danger from fire, do not, by any means, constitute a good roof, being ill calculated for preserving grain or other farm produce. In summer, they admit a heat very unfriendly to hay, corn, or straw; while, in winter, they are equally objectionable, on the ground of transmitting moisture in a high degree, while slates, though more expensive at first, are liable to none of these objections, especially when of the more thick kind. A roof covered with them, therefore, answers every useful purpose, and is very durable. For the construction of modern roofs, generally, see our article ARCHITECTURE, and more on the subject of farm-buildings under RURAL ARCHITECTURE.

ROOK, *n. s. & v. n.* } Sax. *ppoc*; Goth. *rack*.

ROOK'ERY, } A bird resembling a crow,
ROOK'Y, *adj.* } and feeding on grain;
hence a robber or cheat: also a common man of chess: rookery is a nursery of rooks: rooky, inhabited by rooks.

Augurs, that understood relations, have, By magpies, and by coughts, and rooks, brought forth
The secretest man of blood. *Shakspeare. Macbeth.*

Light thickens, and the crow
Makes wing to the rooky wood. *Shakspeare.*

They rooked upon us with design,
To out-reform and undermine. *Hudibras.*
Huge flocks of rising rooks forsake their food,
And, crying, seek the shelter of the wood. *Dryden.*

So have I seen a knight at chess,
His rooks and knights withdrawn,
His queen and bishops in distress,
Shifting about grow less and less,
With here and there a pawn. *Id. Songs.*

How any one's being put into a mixed herd of unruly boys, and there learning to rook at span-farthing, fits him for conversation, I do not see.

Locke on Education.
I am, like an old rook, who is ruined by gaming, forced to live on the good fortune of the pushing young men. *Wycherley.*

No lone house in Wales, with a mountain and a rookery, is more contemplative than this court.

The jay, the rook, the daw,
Aid the full concert. *Thomson's Spring.*

ROOK, in ornithology. See CORVUS. Rooks are very destructive of corn, especially of wheat. They search out the lands where it is sown, and watching them more carefully than the owners, they perceive when the seed first begins to shoot up its blade; and, as soon as these blades appear, they are by them directed to the

Pope.

places where the grains lie; and in three or four days they will root up such vast quantities that a good crop is often thus destroyed in embryo. After a few days, the wheat continuing to grow, its blades appear green above ground; and then the time of danger from these birds is over: for then the seeds are so far robbed of their mealy matter that they are of no value to that bird. The farmers, to drive away these mischievous birds, dig holes in the ground, and stick up the feathers of rooks in them, and hang up dead rooks on sticks in several parts of the fields; but all this is of little use, for the living rooks will tear up the ground about the feathers, and under the dead ones to steal the seeds. The best remedy is, to watch well the time of the corn being in the condition in which they feed upon it; and as this lasts only a few days, a boy should constantly watch the field from day-break till the dusk of the evening. Every time they settle upon the ground the boy should holloa, and throw up a dead rook into the air: this will always make them rise, and they will soon be so tired of this constant disturbance that they will seek out other places of preying, and will leave the ground even before the corn becomes unfit for them. The reason of their rising at the tossing up of the dead bird is, that they are extremely apprehensive of danger, and are always alarmed when one of them rises, and all fly off at the signal.

ROOKE (Jawrence), an eminent English astronomer, born at Deptford in Kent, in 1623; and educated at King's College, Cambridge, and at Oxford. In 1652 he was appointed Gresham professor of astronomy; and was also one of the founders of the Royal Society. He wrote astronomical tracts. He died in 1662.

ROOKE (Sir George), a naval commander, descended of an ancient and honorable family in Kent, was born in 1630. His merit raised him to be vice-admiral of the blue; in which station he served in the battle of La Hogue May 1692, and the next day he obtained still more glory by going into La Hogue, and burning the enemy's fleet, which he completely destroyed, together with most of the transports and ammunition vessels; and this under the fire of all the French batteries, and in sight of all the French and Irish troops; yet this bold action cost the lives of only ten men. The vice-admiral's behaviour on this occasion so pleased king William that, having no opportunity at that time of promoting him, he settled a pension of £1000 per annum on him for life; and afterwards, going to Portsmouth to view the fleet, went on board Rooke's ship, dined with him, and then conferred on him the honor of knighthood, he having a little before made him vice-admiral of the red. In consequence of other services he was in 1694 raised to the rank of admiral of the blue; towards the close of the next year he was made admiral of the white; and was also appointed admiral and commander-in-chief in the Mediterranean. During king William's reign, Sir George was twice elected M. P. for Portsmouth; and upon the accession of queen Anne, in 1702, he was constituted vice-admiral and lieutenant of the admiralty of England, as also lieutenant

of the fleets and seas of this kingdom. Upon the declaration of war against France, he was ordered to command a fleet sent against Cadiz, the duke of Ormond having the command of the land forces. On his passage home, receiving an account that the galleons, under the escort of a strong French squadron, were in the harbour of Vigo, he resolved to attack them: and on the 11th October came before the harbour of Rondondello, which the French commander had put into the best posture of defence. But, notwithstanding this, a detachment of fifteen English and ten Dutch ships of the line, with all the fire-ships were ordered in, and the army landed near Rondondello. The whole service was performed under Sir George's directions; all the ships were destroyed or taken, prodigious damage was done to the enemy, and great wealth acquired by the allies. For this action Sir George received the thanks of the house of commons, a day of thanksgiving was appointed both by the queen and the states general, and Sir George was promoted to a seat in the privy-council; yet, notwithstanding this, the house of lords resolved to enquire into his conduct at Cadiz. But he so fully justified himself that a vote was passed, approving his behaviour. In spring 1704 Sir George commanded the ships of war which conveyed king Charles III. of Spain to Lisbon. In July he attacked Gibraltar; when, by the bravery of the English seamen, the place was taken on the 24th, though the town was extremely strong, and well furnished with ammunition. The capture of this place was conceived and executed in less than a week, yet was then very little thought of; though it has since endured sieges of many months' continuance, and more than once baffled the united forces of France and Spain. Sir George soon after retired to his seat in Kent. He was thrice married; and by his second lady left one son. He died in 1709 in his fifty-eighth year, and was buried in Canterbury cathedral, where a monument is erected to his memory.

ROOM, *n. s.* } Sax. *rum*; Goth. *rum*. Space;
 ROOMAGE, } extent of place great or small;
 ROO'MY, *adj.* } unoccupied space; way: roomage is an obsolete synonyme.

In evils that cannot be removed without the manifest danger of greater to succeed in their *room*, wisdom, of necessity, must give place to necessity.

Hooker.

Make *room*, and let him stand before our face.

Shakespeare.

If you will have a young man to put his travels in a little *room*, and in short time gather much, this he must do.

Bacon.

Man, of all sensible creatures, has the fullest brain to his proportion, for the lodging of the intellective faculties: it must be a silent character of hope, when there is good store of *roomage* and receipt where those powers are stowed.

Wotton.

If when she appears in the room,
 Thou dost not quake, and art struck dumb,
 Know this,
 Thou lovest amiss;
 And, to love true,
 Thou must begin again, and love anew. *Suckling.*

What train of servants, what extent of field,
Shall aid the birth, or give him room to build?

Creech.

With new wonder now he views,
To all delight of human sense exposed
In narrow room, nature's whole wealth.

Milton.

For better ends our kind Redeemer died,
Or the fallen angels rooms will be but ill supplied.

Roscommon.

In a prince's court, the only question a man is to
ask is, whether it be the custom of the court, or will
of the prince, to be uncovered in some rooms and not
in others?

Stillingfleet.

With roomy decks, her guns of mighty strength,
Deep in her draught, and warlike in her length.

Dryden.

This paternal regal power, being by divine right,
leaves no room for human prædence to place it any
where.

Locke.

When this princess was in her father's court, she
was so celebrated that there was no prince in the
empire, who had room for such an alliance, that was
not ambitious of gaining her into his family.

Addison's Freeholder.

It puts us upon so eager a pursuit of the advan-
tages of life, as leaves no room to reflect on the great
author of them.

Atterbury.

By contributing to the contentment of other men,
and rendering them as happy as lies in our power,
we do God's work, are in his place and room.

Calamy's Sermons.

The dry land is much too big for its inhabitants ;
and that before they shall want room by increasing
and multiplying, there may be new heavens and a
new earth.

Bentley.

It will afford me a few pleasant rooms, for such a
friend as yourself.

Pope.

Will you not look with pity on me ?

Is there no hope ? is there no room for pardon ?

A. Philips.

ROOME (Edward), an English writer, the
son of an undertaker in Fleet Street. He was
bred to the law, and became a violent party
writer. He wrote some papers entitled Pasquin,
wherein he offended Mr. Pope, who placed him
in the Dunciad. He succeeded Mr. Hornecks,
as solicitor to the treasury, October 18th 1728,
and died December 10th 1729. His Jovial
Crew was first acted in 1731.

ROOS (John Hendrick), a Dutch painter,
born at Orteburgh in 1631. His landscapes
have uncommon beauty. He also painted por-
traits. He died in 1685.

Roos (Philip), his son, was born in 1665, and
excelled his father greatly. His brother, John
Melchior, was also eminent in painting, and died
in 1731, aged seventy-two.

ROOST, *n. s. & v. n.* Sax. *prortz*. That on
which a bird sits to sleep; the act of sleeping;
to sleep as a bird; lodge.

Sooner than the matin-bell was rung,
He clapped his wings upon his roost and sung.

Dryden.

A fox spied out a cock at roost upon a tree.

L'Estrange.

The cock roosted at night upon the boughs.

Id.

Large and strong muscles move the wings, and
support the body at roost.

Derham's Phys. Theology.

ROOT, *n. s., v. a., & v. n.* } Goth. and

ROOTED, } Swed. *rot*; Belg.

ROOTEDLY, *adv.* } *roed*. That part

of the plant which rests in the ground, and sup-

plies it with nourishment; the original; first au-
cestor: to fix the root; strike deep; fix deep:
the adjective and adverb corresponding.

The multiplying brood of the ungodly shall not
take deep rooting from bastard slips, nor lay any fast
foundation.

Wisdom.

Having this way eased the church, as they thought,
of superfluity, they went on till they had plucked up
even those things also which had taken a great deal
stronger and deeper root.

Hooker.

It was said,

That myself should be the root, and father

Of many kings.

Shakspeare. Macbeth.

Underneath the grove of sycamour,

That westward rooteth, did I see your son.

Shakspeare.

Pluck from the memory a rooted sorrow,

Raze out the written troubles of the brain.

Id.

They all do hate him as rootedly as I.

Id.

He's a rank weed,

And we must root him out.

Id. Henry VIII.

The Egyptians think it sin to root up or to bite

Their leeks or onions, which they serve with holy

rite.

Raleigh's History of the World.

When you would have many new roots of fruit
trees, take a low tree, and bow it, and lay all his
branches aflat upon the ground, and cast earth upon
them, and every twig will take root.

Bacon.

After a yeat's rooting, then shaking doth the tree
good, by loosening of the earth.

Id.

Why did my parents send me to the schools,

That I with knowledge might enrich my mind ?

Since the desire to know first made men fools,

And did corrupt the root of all mankind.

Davies.

The danger is great to them, who, on a weaker
foundation, do yet stand firmly rooted, and grounded

in the love of Christ.

Hammond's Fundamentals.

Deep to the roots of hell the gathered breach

They fastened.

Milton.

Whence,

But from the author of all ill, could spring

So deep a malice, to confound the race

Of mankind in one root ?

Milton's Paradise Lost.

Not to destroy, but root them out of heaven.

Milton.

If any irregularity chanced to intervene, and
cause misapprehensions, he gave them not leave to
root and fasten by concealment.

Fell.

That the love of money is the root of all evil is a
truth universally agreed in.

Temple.

A flower in meadow ground, amellus called ;

And from one root the rising stem bestows

A wood of leaves.

Dryden's Virgil's Georgicks.

That love took deepest root which first did grow.

Dryden.

When ocean, air, and earth, at once engage,

And rooted forests fly before their rage,

At once the clashing clouds to battle move.

Id.

Root up wild olives from thy laboured lands.

Id.

They were the roots, out of which sprang two
distinct people, under two distinct governments.

Locke.

In October, the hops will settle and strike root,
against spring.

Mortimer's Husbandry.

The coulter must be proportioned to the soil, be-
cause, in deep grounds, the weeds root the deeper.

Mortimer.

The layers will in a month strike root, being
planted in a light loamy earth.

Evelyn's Kalendar.

These subterranean vaults would be found espe-
cially about the roots of the mountains.

Burnet.

The great important end that God designs it for,
the government of mankind, sufficiently shows the
necessity of its being rooted deeply in the heart, and

put beyond the danger of being torn up by any ordinary violence.

In vain we plant, we build, our stores increase,
If conscience roots up all our inward peace.

You always joined a violent desire of perpetually changing places with a rooted laziness.

Those plants, whose roots are eaten, are carrots, turnips, and radishes.

They have so rooted themselves in the opinions of their party, that they cannot hear an objection with patience.

Nor were the cole-worts wanting, nor the root,
Which after-ages call Hibernian fruit.

ROOT. See BOTANY.
Root, in algebra and arithmetic, denotes any number which, multiplied by itself once or oftener, produces any other number; and is called the square, cube, biquadrate, &c., root, according to the number of multiplications. Thus 2 is the square-root of 4, the cube-root of 8, the biquadrate-root of 16, &c.

ROOT, SNAKE. See ARISTOLOCHIA.
ROPE, *n. s. & v. a.* } Sax. *raþ*; Goth. *rep*;
ROPE'DANCER, } Swed. *reep*; Belg. *reip*;
ROPE'MAKER, } *roop*. A thick cord or
RO'PERY, *n. s.* } string; halter; cluster:
ROPE'TRICK, } to range; draw out:
RO'PINESS, *n. s.* } ropery is used by Shaks-
RO'PY, *adj.* } peare for roguery: rope-

trick for a rogue's trick; or, as Johnson thinks, for tricks that deserve a halter: ropiness is viscosity; stringiness: ropy, glutinous; viscous: the other compounds the extracts will explain.

Thou drunken slave, I sent thee for a rope,
And told thee to what purpose.

The ropemaker bears me witness,
That I was sent for nothing but a rope.

What saucy merchant was this, that was so full of his ropery?

She may perhaps call him half a score knaves or so: an' he begin once, he'll rail in his ropetricks.

An anchor let down by a rope, maketh a sound; and yet the rope is no solid body, whereby the sound can ascend.

Such bodies partly follow the touch of another body, and partly stick to themselves: and therefore rope and draw themselves into threads; as pitch, glue, and birdlime.

Salvian, amongst public shews, mentions the Peta-menari; probably derived from the Greek *παρασαι*, to fly, and may refer to such kind of ropedancers.

Who would, not guess there might be hopes,
The fear of gallowses and ropes
Before their eyes, might reconcile
Their animosities a while.

In this close vessel place the earth accursed,
But filled brimful with wholesome water first,
Then run it through, the drops will rope around.

Ask for what price thy venal tongue was sold;
Tough, withered truffles, ropy wine, a dish
Of shotten herrings, or stale stinking fish.

I cannot but confess myself mightily surprized,
that, in a book which was to provide chains for all mankind, I should find nothing but a rope of sand.

Take care
Thy muddy bev'rage to serene, and drive
Precipitant the baser ropy lees.

Staius, posted on the highest of the two summits, the people regarded, with terror, as they look upon a daring ropedancer, whom they expect to fall every moment.

Hang yourself up in a true rope, that there may appear no trick in it.

The contents separated from it are sometimes ropy, and sometimes only a grey and mealy, light substance.

ROPE-MAKING is an art of great importance, and there are few that better deserve the attention of the intelligent observer. Hardly any trade can be carried on without the assistance of the rope-maker. Cordage makes the very sinews and muscles of a ship; and every improvement which can be made in its preparation, either in respect to strength or pliability, must be of immense service to the mariner, and to the commerce and defence of nations.

Rope-making has been defined the art of uniting animal or vegetable fibres into an aggregate line, so that the whole may concur in one joint action, and be employed under the forms of string, cord, cable, &c. Animal fibres, on account of their expense, are but seldom used, but those that are introduced into the employment are obtained either from the intestines or the hair. The intestines of sheep and lambs are manufactured into what is called cat-gut, of different sizes, for the use of musical-instrument-makers, for watch-makers, opticians, cutlers, turners, and a variety of other artificers. The tendrils of the ovary of the squalus canicula, or dog-fish, are chiefly employed in angling, more frequently single than in the combined state, known in the trade by the name of Indian-grass. Animal hair, as that from horses, is had recourse to where there is no great friction, and it forms a rope or cord much more durable than any that can be obtained from vegetables; it is impervious to moisture is capable of resisting all weathers, and is extremely elastic. Hence it is obvious that the rope-maker must derive his chief material from the vegetable kingdom; which he does from the inner bark of the hemp, or cannabis sativa; or from that of some of the species of flax, or linum; that of the *L. usitissimum* is the most important. The treatment of both these plants being nearly the same, we shall describe, as nearly as we can, that relating to flax. The plant is rather common in most of the temperate parts of Europe, flowering in July. The root is annual, fibrous, and small; the stem is erect, round, smooth, and leafy; the flowers on stalks erect, and of a sky-blue color. About the end of August, when the flowers have attained their full growth, and begin to turn yellow at bottom, and brown at the top, and their seeds to ripen, it is a proper time to pull the plants up. They are dried and threshed; they are then to be put in water till the bark readily separates from the stalk, when they are taken out and dried, after which they are in a proper state for the purpose of being converted into flax by the hackler. We may observe, though not strictly connected with the subject in hand, that, as from the bark of the stalks is manufactured flax or lint, for making of all sorts of linen cloth;—from cloth, when worn out, we make our paper; from the seeds of the

plant linseed oil is expressed ; and even the refuse, after the oil is extracted, forms oil-cakes, so valuable in fattening cattle, sheep, and other live stock. From hemp, however, treated in a similar way, we have the materials for cordage, ropes, and cables. Russian hemp is most used, but English hemp, when properly manufactured, is superior to that introduced from the north.

The aim of the rope-maker is to unite the strength of a great number of fibres, and the first part of his process is spinning of rope-yarns ; that is, twisting the hemp in the first instance. This is done in various ways, and with different machinery, according to the nature of the intended cordage. We shall confine our description to the manufacture of the larger kinds, such as are used for the standing and running rigging of ships. An alley, or walk, is enclosed for the purpose, about 200 fathoms long, and of a breadth suited to the extent of the manufacture. It is sometimes covered above. At the upper end of this rope-walk is set up the spinning-wheel. The band of the wheel goes over several rollers, called whirls, turning on pivots in brass holes. The pivots at one end come through the frame, and terminate in little hooks. The wheel, being turned by a winch, gives motion in one direction to all the whirls. The spinner has a bundle of dressed hemp round his waist, with the two ends meeting before him. The hemp is laid in this bundle in the same way that women spread the flax on the distaff. There is great variety in this ; but the general aim is to lay the fibres in such a manner, that, as long as the bundle lasts, there may be an equal number of the ends at the extremity, and that a fibre may never offer itself double, or in a bight. The spinner draws out a proper number of fibres, twists them with his fingers, and, having got a sufficient length detached, he fixes to the hook of a whirl. The wheel is now turned, and the skein is twisted, becoming what is called rope-yarn, and the spinner walks backwards down the rope-walk. The part already twisted draws along with it more fibres out of the bundle. The spinner aids this with his fingers, supplying hemp in due proportion, as he walks away from the wheel, and taking care that the fibres come in equally from both sides of his bundle, and that they enter always with their ends, and not by the middle, which would double them. He should also endeavour to enter every fibre at the heart of the yarn. This will cause all the fibres to mix equally in making it up, and will make the work smooth, because one end of each fibre is, by this means, buried among the rest, and the other end only lies outward ; and this, in passing through the grasp of the spinner, who presses it tight with his thumb and palm, is also made to lie smooth. A good spinner endeavours always to supply the hemp in the form of a thin flat skein, with his left hand, while his right hand is employed in grasping firmly the yarn that is twining off, and in holding it tight from the whirl, that it may not run into loops or kinks. It is evident that both the arrangement of the fibres, and the degree of twisting, depend on the skill and dexterity of the spinner, and that he must be instructed, not by a book, but by a

master. The degree of twist depends on the rate of the wheel's motion, combined with the retrograde walk of the spinner. We may suppose him arrived at the lower end of the walk, or as far as is necessary for the intended length of his yarn. He calls out, and another spinner immediately detaches the yarn from the hook of the whirl, and gives it to another, who carries it aside to the reel ; and this second spinner attaches his own hemp to the whirl-hook. In the mean time, the first spinner keeps fast hold of the end of his yarn ; for the hemp, being dry, is very elastic, and, if he were to let it go out of his hand, it would instantly untwist, and become little better than loose hemp. He waits, therefore, till he sees the reeler begin to turn the reel, and he goes slowly up the walk, keeping the yarn of an equal tightness all the way, till he arrives at the wheel, where he waits with his yarn in his hand till another spinner has finished his yarn. The first spinner takes it off the whirl-hook, joins it to his own, that it may follow it on the reel, and begins a new yarn. The second part of the process is the conversion of the yarns into what may with propriety be called a rope, cord, or line. That we may have a clear conception of the principle which regulates this part of the process, we shall begin with the simplest possible case—the union of two yarns into one line.

When hemp has been split into very fine fibres by the hatchlet, it becomes exceedingly soft and pliant, and, after it has lain for some time in the form of fine yarn, it may be unreel and thrown like flaxen yarn, so as to make sewing-thread. It is in this way, indeed, that the sail-makers' sewing-thread is manufactured, and when it has been kept on the reel, or on balls or bobbins, for some time, it retains its twist as well as its uses require. But this is by no means the case with yarns spun for great cordage. The hemp is so elastic, the number of fibres twisted together is so great, and the diameter of the yarn (which is a sort of lever on which the elasticity of the fibre exerts itself) is so considerable, that no keeping will make the fibres retain this constrained position.

The end of a *rope-yarn* being thrown loose, it will immediately untwist, and this with considerable force and speed. It would, therefore, be a fruitless attempt to twist two such yarns together ; yet the ingenuity of man has contrived to make use of this very tendency to untwist, not only to counteract itself, but even to produce another and a permanent twist, which requires force to undo it, and which will recover itself when this force is removed. Every person must recollect that, when he has twisted a packthread very hard with his fingers between his two hands, if he slackens the thread by bringing his hands nearer together, the packthread will immediately curl up, running into loops or kinks, and will even twist itself into a neat and firm cord. The component parts of a rope are called strands, and the operation of uniting them with a permanent twist is called laying or closing, the latter term being chiefly appropriated to cables and other very large cordage.

The process of laying or closing large cordage

is thus conducted: the strands of which the rope is composed consist of many yarns, and require a considerable degree of hardening. This cannot be done by a whirl driven by a wheel-band; it requires the power of a crank turned by the hand. The strands, when properly hardened, become very stiff, and, when bent round the top, are not able to transmit force enough for laying the heavy and unpliant rope which forms beyond it. The elastic twist of the hardened strands must therefore be assisted by an external force. All this requires a different machinery and a different process. At the upper end of the walk is therefore fixed a tackle-board: this consists of a strong-oaken plank, called a breast-board, having three or more holes in it and fitted with brass or iron plates. Into these are put iron cranks called heavers, which have hooks or forelocks, and keys on the ends of their spindles. They are placed at such a distance from each other that the workmen do not interfere while turning them round. This breast-board is fixed to the top of strong posts, well secured by struts or braces facing the lower end of the walk. At the lower end is another breast-board fixed to the upright post of a sledge, which may be loaded with stones or other weights. Similar cranks are placed in the holes of this breast-board; the whole goes by the name of the sledge.

The top necessary for closing large cordage is too heavy to be held in the hand, it therefore has a long staff, which has a truck on the end. This rests on the ground, but even this is not enough in laying great cables. The top must be supported on a carriage, where it must lie very steady, and it needs attendance, because the master workman has sufficient employment in attending to the manner in which the strands close behind the top, and in helping them by various methods. The top is therefore fixed to the carriage by lashing its staff to the two upright posts. A piece of soft rope or strap is attached to the handle of the top by the middle, and its two ends are brought back and wrapped several times tight round the rope in the direction of its twist, and bound down. This greatly assists the laying of the rope by its friction, which both keeps the top from flying too far from the point of union of the strands, and brings the strands more regularly into their places. The first operation is warping the yarns. At each end of the walk are frames called warping frames, which carry a great number of reels, or winches, filled with rope-yarn. The foreman of the walk takes off a yarn end from each, till he has made up the number necessary for his rope or strand, and, bringing the ends together, he passes the whole through an iron ring fixed to the top of a stake driven into the ground, and draws them through; then a knot is tied on the end of the bundle, and a workman pulls it through this ring till the intended length is drawn off the reels. The end is made fast at the bottom of the walk, or at the sledge, and the foreman comes back along the skein of yarns, to see that none are hanging slacker than the rest. He takes up in his hand such as are slack and draws them tight, keeping them so till he reaches the upper end, where he cuts the yarns

to a length, again adjusts their tightness, and joins them all together in a knot, to which he fixes the hook of a tackle, the other block of which is fixed to a firm post, called the warping-post. The skein is well stretched by the tackle, and then separated into its different strands. Each of these is knotted apart at both ends. The knots at their upper ends are made fast to the hooks of the cranks in the tackle-board, and those at the lower ends are fastened to the cranks in the sledge. The sledge itself is kept in its place by a tackle, by which the strands are again stretched in their places and every thing adjusted, so that the sledge stands square on the walk, and then a proper weight is laid on it. The tackle is now cast off, and the cranks are turned at both ends in the contrary direction to the twist of the yarns (in some kinds of cordage the cranks are turned the same way with the spinning twist). By this the strands are twisted and hardened up, and as they contract by this operation the sledge is dragged up the walk. When the foreman thinks the strands sufficiently hardened, which he estimates by the motion of the sledge, he orders the heavers at the cranks to stop. The middle strand at the sledge is taken off from the crank; this crank is taken out, and a stronger one put in its place. The other strands are taken off from their cranks, and all are joined on the hook which is now in the middle hole; the top is then placed between the strands, and, being pressed home to the point of their union, the carriage is placed under it, and it is firmly fixed down; some weight is taken off the sledge. The heavers now begin to turn at both ends; those at the tackle-board continue to turn as they did before, but the heavers at the sledge turn in the opposite direction to their former motion, so that the cranks at both ends are now turning one way. By the motion of the sledge-crank the top is forced away from the knot, and the rope begins to close. The heaving at the upper end restores to the strands the twist which they are constantly losing by the laying of the rope. The workmen judge of this by making a chalk mark on the intermediate points of the strands, where they lie on the stakes which are set up along the walk for their support. If the twist of the strands is diminished by the motion of closing they will lengthen, and the chalk mark will move away from the tackle-board; but, if the twist increases by turning the cranks at the tackle-board, the strands will shorten and the mark will come nearer to it. As the closing of the rope advances the whole shortens, and the sledge is dragged up the walk. The top moves faster, and at last reaches the upper end of the walk, the rope being now laid.

In the mean time the *sledge* has moved several fathoms from the place where it was when the laying began. These motions of the sledge and top must be exactly adjusted to each other. The rope must be of a certain length, therefore the sledge must stop at a certain place. At that moment the rope should be laid; that is, the top should be at the tackle-board. In this consists the address of the foreman. He has his attention directed both ways. He looks at the strands,

and, when he sees any hanging slacker between the stakes than the others, he calls to the heavers at the tackle-board to heave more upon that strand. He finds it more difficult to regulate the motion of the top. It requires a considerable force to keep it in the angle of the strands, and it is always disposed to start forward. To prevent or check this, some straps of soft rope are brought round the staff of the top, and then wrapped several times round the rope behind the top, and kept firmly down by a lanyard or bandage. This both holds back the top and greatly assists the laying of the rope, causing the strands to fall into their places, and keep close to each other, which is sometimes very difficult, especially in ropes composed of more than three strands. It will greatly improve the laying of the rope, if the top has a sharp, smooth, tapering pin of hard wood, pointed at the end, projecting so far from the middle of its smaller end that it gets in between the strands which are closing. This supports them, and makes their closing more gradual and regular. The top, its notches, the pin, and the warp or strap, which is lapped round the rope, are all smeared with grease or soap, to assist the closing. The foreman judges of the progress of closing chiefly by his acquaintance with the walk, knowing that when the sledge is a-breast of a certain stake the top should be a-breast of a certain other stake. When he finds the top too far down the walk he slackens the motion at the tackle-board, and makes the men turn briskly at the sledge. By this the top is forced up the walk, and the laying of the rope accelerates, while the sledge remains in the same place, because the strands are losing their twist, and are lengthening, while the closed rope is shortening. When, on the other hand, he thinks the top too far advanced, and fears that it will be at the head of the walk before the sledge has got to its proper place, he makes the men heave briskly on the strands, and the heavers at the sledge crank work softly. This quickens the motion of the sledge by shortening the strands; and, by thus compensating what has been overdone, the sledge and top come to their places at once, and the work appears to answer the intention. When the top approaches the tackle-board the heaving at the sledge could not cause the strands immediately behind the top to close well, without having previously produced an extravagant degree of twist in the intermediate rope. The effort of the crank must, therefore, be assisted by men stationed along the rope, each furnished with a tool called a woolder. This is a stout oaken stick, about three feet long, having a strap of soft rope-yarn or cordage, fastened on its middle or end. The strap is wrapped round the laid rope, and the workman works with the stick as a lever, twisting the rope round in the direction of the crank's motion. The woolders should keep their eye on the man at the crank, and make their motion correspond with his. Thus they send forward the twist produced by the crank, without either increasing or diminishing it, in that part of the rope which lies between them and the sledge. Such is the general and essential process of rope making.

The fibres of hemp are twisted into yarns, that they may make a line of any length, and stick among each other with a force equal to their own cohesion. The yarns are made into cords of permanent twist by laying them; and that we may have a rope of any degree of strength many yarns are united in one strand, for the same reason that many fibres were united in one yarn; and in the course of this process it is in our power to give the rope a solidity and hardness which make it less penetrable by water, which would rot it in a short while. Some of these purposes are inconsistent with others: and the skill of a rope-maker lies in making the best compensation, so that the rope may, on the whole, be the best in point of strength, pliancy, and duration, that the quantity of hemp in it can produce. The following rule for judging of the weight which a rope will bear is not far from the truth. It supposes them rather too strong; but it is so easily remembered that it may be of use. Multiply the circumference in inches by itself, and take the fifth part of the product, it will express the tons which the rope will carry. Thus, if the rope has six inches circumference, six times six is thirty-six, the fifth of which is seven tons and one-fifth.

It is usual in *cables*, and in other cases, to have recourse to the operation of tarring. This is often done in the state of twine or yarn, as being the best mode by which the hemp can be uniformly penetrated. The yarn is made to wind off from one reel, and, having passed through a vessel of liquid hot tar, is wound on another reel; the superfluous tar is taken off by passing through a hole surrounded with oakum: or it is sometimes tarred in skeins, which are drawn by a capstern through a tar-kettle, and a hole formed by two plates of metal, held together by a lever, loaded with a weight. There is this peculiarity to be noticed—tarred cordage is weaker, when new, than white, and the difference increases by the keeping. From some very accurate experiments made more than half a century ago, it was found that, on newly-made cordage, the white was one-eighth stronger than that which was tarred; that, at the expiration of three months, the difference in favor of the new was almost one-fourth; and, in about three years and a half, the difference was as twenty-nine to eighteen. From these, and other experiments, it was ascertained, 1. That white cordage in continual service is one-third more durable than that which is subjected to the operation of tarring. 2. That it retains its strength much longer while kept in the warehouse. 3. That it resists the ordinary injuries of the weather one-fourth longer. It may then be asked, Why is tar ever used by the rope-maker? Because white cordage, when exposed to be alternately very wet and dry, is weaker than that which is tarred, and to this cables and ground-tackle are continually subjected. It has also been pretty well ascertained that cordage which is only superficially tarred is constantly stronger than that which is tarred throughout.

Before we conclude this article we may notice Mr. Chapman's method of making ropes and cordage, for which he obtained, some years since,

his majesty's letters patent. The specifications may be found in the ninth volume of the First Series of the Repertory. It is too long to be admitted in our work; the following is, however, an outline of the whole:—

Rope-yarns are spun either by hand, or by machinery: in the practice of the first method rope-walks are necessary, and the fibres of the hemp are drawn into the yarn of different lengths proportionate in a given degree to their position on the outside or inside of the yarn; accordingly, when this yarn is strained, and its diameter collapses, the inside fibres of hemp bear the greatest strain, and thus they break progressively from the inside. In the spinning by a mill the fibres are all brought forward in a position parallel to each other, previously to their receiving their twist. They are consequently all of one length; and, when twisted, the outside fibres are most shortened by forming the same number of spirals round a greater axis than the interior, and thus they must consequently break first, on the same principle that the outside yarns of strands of ropes manufactured in the old method break before the interior yarns; and consequently with less strain than ropes of the improved principle, where the strands (or immediate component parts of the rope) have been formed in such a manner as that all the yarns shall bear equally at the time of the rope's breaking. Nevertheless yarns spun by a mill have been found stronger than common yarns, on account of the great evenness with which they are spun; the manual labor in manufacturing is much less than in the common method: but on the other hand there is the expense of machinery, and the greater waste of hemp in preparing it for being drawn out in the progressive stages of its advance to the spindle.

The method invented by Mr. Chapman differs from both the preceding, in causing, by an easy and simple contrivance, the fibres of the hemp to be laid in the yarn in such a manner as the yarns themselves are laid in the strands of the rope manufactured on the new principle. The machinery consists only of a spindle divided into two parts, the upper containing apparatus to draw forward the hemp from the spinner with twist sufficient to combine the fibres; which enables him to employ women, children, and invalids, and also to appropriate the rope-ground solely to the purpose of laying ropes. The remaining parts of the invention consist chiefly in giving from a stationary power internal motion to a loco-motive machine, viz. to the roper's sledge, on which the strands and the rope itself are twisted, by which contrivance they are enabled to apply a water-wheel or steam-engine to the whole process of making ropes of all kinds whatever.

Mr. Huddart likewise obtained a patent for an improved method of registering or forming strands in the machinery for manufacturing of cordage; which he effects in the following manner:—1. By keeping the yarns separate from each other, and drawing them from bobbins which revolve to keep up the twist whilst the strand is forming. 2. By passing them through a register, which divides them by circular shells of holes; the number in each shell being agree-

able to the distance from the centre of the strand, and the angle which the yarns make with a line parallel to it, and which gives them a proper position to enter. 3. A cylindrical tube which compresses the strand, and maintains a cylindrical figure to its surface. 4. A gauge to determine the angle which the yarns in the outside shall make with a line parallel to the centre of the strand when registering; and, according to the angle made by the yarns in this shell, the length of all the yarns in the strand will be determined. 5. By hardening up the strand, and thereby increasing the angle in the outside shell, which compensates for the stretching of the yarns and the compression of the strand.

ROPE-YARN, among sailors, is the yarn of any rope untwisted, but commonly made up of junk: its use is to make sinnet, mats, &c.

ROQUELAURE, *n. s.* Fr. *roquelaur.* A cloak for men.

Within the *roquelaur's* clasp try hands are pent.
Gay.

RORAAS, an inland town of Norway, in the bishopric of Drontheim. It stands on a high mountain the most elevated inhabited situation in the country. Frost and snow prevail during almost the whole year. It contains 3000 inhabitants, principally occupied in the copper mines of the neighbourhood. Sixty-seven miles S. S. E. of Drontheim.

RORID, *adj.* Lat. *roridus.* Dewy.

A vehicle conveys it through less accessible cavities into the liver, from thence into the veins and so in a *rorid* substance through the capillary cavities.

Brown's Vulgar Errors.

RORIDULA, in botany, a genus of the monogynia order, and pentandria class of plants: cor. pentapetalous: cal. pentaphyllous: caps. bivalved; the antheræ scrotiform at the base. Species one only, a Cape shrub.

ROSA (Salvator), a celebrated painter, born in Naples in 1614. He was first instructed by Francis Francanzano, a kinsman: but the death of his father reduced him to sell drawings sketched upon paper, one of which falling into the hands of Lanfranc, he took him under his protection, and enabled him to enter the school of Spagnoletto, where he was taught by Daniel Falcone, a distinguished painter of battles at Naples. Salvator had a fertile imagination. He studied nature with attention and judgment; and always represented her to the greatest advantage. He was equally eminent for painting battles, animals, sea or land storms; and he executed these different subjects in a style altogether unequalled. His pieces are exceedingly scarce and valuable; one of the finest is that representing Saul and the witch of Endor, which was preserved at Versailles. He died in 1673; and, as his paintings are in few hands, he is more generally known by his prints; of which he etched a great number. They are chiefly historical. He is said to have spent the early part of his life among a troop of banditti; and that the rocky desolate scenes in which he was accustomed to take refuge furnished him with those romantic ideas in landscape, in the representation of which he so greatly excels. His robbers, as his detached figures are commonly called, are supposed also

to have been taken from the life. He was also a musician; as appears from his musical MSS. purchased at Rome by Dr. Burney.

Rosa, in botany, the rose, a genus of the polygamia order, and icosandria class of plants; natural order thirty-fifth, senticosæ: CAL. urceolated, quinquefid, corneous, and straightened at the neck; petals five. The SEEDS are numerous, hispid, and affixed to the inside of the calyx. The different kinds of roses are very numerous; and botanists find it very difficult to determine with accuracy which are species and which are varieties. On this account Linné, and some other eminent authors, are inclined to think that there is only one real species of rose, which is the *rosa canina*, or dog-rose of the hedges, &c., and that all the other sorts are accidental varieties of it. However, according to the Linnæan arrangement, they stand divided into fourteen species, each comprehending varieties, which in some sorts are but few, in others numerous. The supposed species and their varieties, according to the arrangement of Gmelin, are as follow:—

1. *R. alba*, the common white rose, grows five or six feet high, having a green stem and branches, armed with prickles, hispid pedunculi, oval smooth germina, and large white flowers. The varieties are, large double white rose, dwarf single white rose, maiden's-blush white rose, being large, produced in clusters, and of a white and blush red color.

2. *R. alpina*, the alpine inermous rose, grows five or eight feet high, having smooth or unarmed reddish branches, pinnated seven-lobed smooth leaves, somewhat hispid pedunculi, oval germina, and deep-red single flowers; appearing in May. This species, as being free from all kind of armature common to the other sorts of roses, is esteemed as a singularity; and from this property is often called the virgin or thornless rose.

3. *R. canina*, the canine rose, wild dog-rose of the hedges, or hep-tree, grows five or six feet high, having prickly stalks and branches, pinnated, five or seven-lobed leaves, with aculeated foot-stalks, smooth pedunculi, oval smooth germina, and small single flowers. There are two varieties, red-flowered and white-flowered. They grow wild in hedges abundantly all over the kingdom; and are sometimes admitted into gardens, to increase the variety of the shrubbery collection.

4. *R. Carolinensis*, the Carolina and Virginia rose, &c., grows six or eight feet high, or more, having smooth reddish branches, very thinly aculeated; pinnated seven-lobed smooth leaves, with prickly foot-stalks; somewhat hispid pedunculi, globose hispid germen, and single red flowers in clusters, appearing mostly in August and September. The varieties are, dwarf Pennsylvanian rose, with single and double red flowers, and American pale-red rose. This species grows naturally in different parts of North America, and often continues in blow from August until October; and the flowers are succeeded by numerous red berry-like heps in autumn, causing a variety all winter.

5. *R. centifolia*, the hundred-leaved red rose,

&c., grows from about three or four to six or eight feet high, with pinnated three and five-lobed leaves; and large very double red flowers, having very numerous petals, and of different shades in the varieties. The varieties are, common Dutch hundred-leaved rose, grows three or four feet high, with erect greenish branches, but moderately armed with prickles; and large remarkably double red flowers, with short regularly arranged petals. Blush hundred-leaved rose, grows like the other, with large very double pale-red flowers. Provence rose grows five or six feet with greenish-brown prickly branches, and very large double globular red flowers, with large petals folding over one another, more or less in the varieties. The varieties are, common red Provence rose, and pale Provence rose; both of which having larger and somewhat looser petals than the following sort:—cabbage Provence rose; having the petals closely folded over one another like cabbages. Dutch cabbage rose, very large. Childing Provence rose. Great royal rose, grows six or eight feet high, producing remarkably large, somewhat loose, but very elegant flowers. All these are large double red flowers, somewhat globular at first blowing, becoming gradually a little spreading at top, and are very ornamental fragrant roses. Moss Provence rose, supposed a variety of the common rose; grows erectly four or five feet high, having brownish stalks and branches, very closely armed with short prickles, and double crimson-red flowers; having the calyx and upper part of the peduncle surrounded with a rough mossy-like substance, effecting a curious singularity. This is a fine delicate rose, of a high fragrance, which, together with its mossy calyx, renders it a most beautiful flower.

6. *R. cinnamomea*, the cinnamon rose, grows five or six feet high, or more, with purplish branches thinly aculeated; pinnated five or seven lobed leaves, having almost inermous petioles, smooth pedunculi, and smooth globular germina; with small purplish red cinnamon-scented flowers early in May. There are varieties with double flowers.

7. *R. eglanteria*, the eglantine rose or sweet briar, grows five or six feet high, having green branches, armed with strong spines sparsedly; pinnated seven-lobed odoriferous leaves, with acute folioles and rough foot-stalks, smooth pedunculi, globular smooth germina, and small pale-red flowers. The varieties are, common single flowered, semi-double flowered, double-flowered, blush double-flowered, and yellow-flowered. This species grows naturally in some parts of England, and in Switzerland. It claims culture in every garden for the odoriferous property of its leaves: and should be planted in the borders, and other compartments contiguous to walks, or near the habitation, where the plants will impart their refreshing fragrance very profusely around; and the young branches are excellent for improving the odor of nosegays and bow-pots.

8. *R. gallica*, the gallican rose, &c., grows from about three or four to eight or ten feet high, in different varieties; with pinnated, three, five, or seven-lobed leaves, and large red and

other colored flowers in different sorts. This species is very extensive in supposed varieties, bearing the above specific distinction, several of which have been formerly considered as distinct species, but are now ranged among the varieties of the Galician rose, consisting of the following noted varieties: common red officinal rose, grows erect, about three or four feet high, having small branches, with but few prickles, and large spreading half-double deep red flowers. *Rosa mundi* (rose of the world) or striped red rose is a variety of the common red rose, growing but three or four feet high, having large spreading semi-double red flowers, beautifully striped with white and deep red. York and Lancaster variegated rose grows five, six, or eight feet high, or more; bearing variegated red flowers, consisting of a mixture of red and white; also frequently disposed in elegant stripes, sometimes in half of the flower, and sometimes in some of the petals. Monthly rose grows about four or five feet high, with green very prickly shoots; producing middle-fixed, moderately double, delicate flowers, of different colors in the varieties. The varieties are, common red-flowered monthly rose, bluish-flowered, white-flowered, and stripe-flowered. All of which blow both early and late, and often produce flowers several months in the year, as May, June, and July; and frequently again in August or September, and sometimes, in fine mild seasons, continue till November or December: hence the name monthly rose. Double-virgin rose grows five or six feet high, having greenish branches with scarcely any spines; and with large double pale-red and very fragrant flowers. Red damask-rose grows eight or ten feet high, having greenish branches, armed with short aculea; and moderately double, fine soft red, very fragrant flowers. White damask-rose grows eight or ten feet high, with greenish very prickly branches, and whitish-red flowers, becoming gradually of a whiter color. Blush Belgic rose grows three or four feet high, or more; having greenish prickly branches, five or seven-lobed leaves, and numerous, very double, bluish-red flowers, with short petals, evenly arranged. Red Belgic rose, having greenish and red shoots and leaves, and fine double deep-red flowers. Velvet rose grows three or four feet high, armed with but few prickles, producing large velvet-red flowers comprising semi-double and double varieties, all very beautiful roses. Marbled rose grows four or five feet high, having brownish branches, with but few prickles; and large, double, finely-marbled, red flowers. Red-and-yellow Austrian rose grows five or six feet high, having slender reddish branches, armed with short brownish aculea; and with flowers of a reddish copper-color on one side, the other side yellow. Yellow Austrian rose grows five or six feet high, having reddish very prickly shoots, and numerous bright-yellow flowers. Double yellow rose grows six or seven feet high; with brownish branches, armed with numerous large and small yellowish prickles; and large very double yellow flowers. Francfort rose grows eight or ten feet high, is a vigorous shooter, with brownish branches thinly armed with strong prickles, and produces largish double

purplish-red flowers, that blow irregularly, and have but little fragrance.

9. *R. moschata*, the musk-rose, supposed to be a variety only of the ever-green musk-rose, has weak smooth green stalks and branches, rising by support from six to eight or ten feet high, or more thinly armed with strong spines, pinnated seven-lobed smooth leaves, with prickly foot-stalks, hispid peduncles, oval hispid germen; and all the branches terminated by large umbellated clusters of pure-white musk-scented flowers, in August, &c.

10. *R. pimpinellifolia*, the burnet-leaved rose, grows about a yard high, aculeated sparsely; small neatly pinnated seven lobed leaves, having obtuse folioles and rough petioles, smooth peduncles, a globular smooth germen, and small single flowers. There are varieties with red flowers, and with white flowers. They grow wild in England, &c., and are cultivated in shrubberies for variety.

11. *R. sempervirens*, the ever-green musk rose, has a somewhat trailing stalk and branches, rising by support five or six feet high or more, having a smooth bark armed with prickles; pinnated five-lobed smooth shining ever-green leaves, with prickly petioles, hispid pedunculi, oval hispid germen; and all the branches terminated by clusters of pure white-flowers of a musky fragrance; appearing in the end of July, and in August. The ever-green property of this elegant species renders it a curiosity; it also makes a fine appearance as a flowering shrub. There is one variety, the deciduous musk-rose. This species and variety flower in August, and are remarkable for producing in numerous clusters, continuing in succession till October or November.

12. *R. spinosissima*, the most spinous, dwarf burnet-leaved rose, commonly called Scotch rose, grows but two or three feet high, very closely armed with spines; small neatly pinnated seven-lobed leaves, with prickly foot-stalks, prickly pedunculi, oval smooth germen, and numerous small single flowers, succeeded by round dark-purple heps. The varieties are common white-flowered, red-flowered, striped-flowered, and marble-flowered. They grow naturally in England, Scotland, &c. The first variety rises nearly a yard high, the others about one or two feet, all of which are single-flowered; but the flowers, being numerous all over the branches, make a pretty appearance in the collection.

13. *R. villosa*, the villose apple-bearing rose, grows six or eight feet high, having strong erect brownish-smooth branches, aculeated sparsely pinnated seven-lobed villose or hairy leaves downy underneath, with prickly foot-stalks, hispid peduncles, a globular prickly germen; and large single red flowers, succeeded by large round prickly heps, as big as little apples. This species merits admittance into every collection as a curiosity for the singularity of its fruit, both for variety and use; for it, having a thick pulp of an agreeable acid relish, is often made into a tolerably good sweetmeat. The above thirteen species of *rosa*, and their respective varieties, are of the shrub kind; all deciduous except *R. sempervirens*, and of hardy growth, suc-

ceeding in any common soil and situation, and flowering annually in great abundance from May till October, in different sorts, though the general flowering season for the principal part of them is June and July; but in a full collection of the different species the blow is continued in constant succession several months, even sometimes from May till nearly Christmas; producing their flowers universally on the same year's shoots, rising from those the year before, generally on long pedunculi, each terminated by one or more roscs, which in their characteristic state consist each of five large petals and many stamina; but in the doubles the petals are very numerous; and in some sorts the flowers are succeeded by fruit ripening to a red color in autumn and winter, from the seed of which the plants may be raised: but the most certain and eligible mode of propagating most of the sorts is by suckers and layers; and by which methods they may be increased very expeditiously. The white and red roses are used in medicine. The former distilled with water yields a small portion of a butyraceous oil, whose flavor exactly resembles that of the roses themselves. This oil and the distilled water are very useful and agreeable cordials. These roses also, besides the cordial and aromatic virtues which reside in the volatile parts, have a mild purgative one, which remains entire in the decoction left after distillation. The red rose, on the contrary, has an astringent and corroborating virtue.

ROSA, MOUNT, one of the Alpine heights, and next to Mont Blanc, the highest mountain in Europe. It stands between the canton of the Valais and Piedmont, to the east of Mont Cervin, Switzerland. Saussure calculated it to be 15,600 feet above the sea, or only seventy feet lower than Mont Blanc; Sir George Shuckburgh calls it 15,240 feet above the Mediterranean. It consists of a number of lofty peaks, all rising from a centre somewhat like the leaves of a rose.

ROSALBA (Cariera), a Venetian lady, born in 1675, who became an eminent paintress. She painted portraits in crayons and miniatures, and was greatly employed by the English nobility. She died in 1755, aged eighty.

ROSAMOND, the daughter of Walter lord Clifford, and concubine of Henry II., was a lady of exquisite beauty, educated in the nunnery of Godstow. The popular story of her is as follows:—Henry II. loved her, and triumphed over her honor. To avoid the jealousy of his queen Eleanor he kept her in a labyrinth at Woodstock, and by his connexion with her had William Longsword earl of Salisbury, and Geoffrey bishop of Lincoln. On Henry's absence in France, however, the queen discovered and poisoned her. The queen, it is said, discovered her apartment by a thread of silk. Some assert that she died a natural death; and the story of her being poisoned is by them said to have arisen from the figure of a cup on her tomb. She was buried in the church of Godstow, opposite to the high altar, where her body remained till it was ordered to be removed with every mark of indignity by Hugh bishop of Lincoln in 1191. She was, however, by many considered as a saint after her death, and fabulous legends were invented about her.

ROSARY, *n. s.* Lat. *rosarium*. A bunch of beads, on which the Romanists number their prayers.

No *rosary* this votress needs,
Her very syllables are beads. *Cleaveland.*
Every day propound to yourself a *rosary* or a chaplet of good works, to present to God at night. *Taylor.*

ROS'CID, *adj.* Lat. *roscidus*. Dewy; abounding with dew; consisting of dew.

Wine is to be forborn in consumptions, for the spirits of wine prey upon the *roscid* juice of the body. *Bacon.*

The ends of rainbows fall more upon one kind of earth than upon another; for that earth is most *roscid*. *Id.*

ROSCIUS (Quintus), an eminent Roman actor, so highly celebrated in comedy that his name is applied as the best encomium to all modern comedians of great merit. He was intimate with Cicero and Æsop the comedian; and was so much admired by the Romans that they gave him a pension for life. His eyes being distorted he wore a mask at first on the stage; but the Romans caused him to lay it aside, that they might enjoy his oratory more fully. Being calumniated by his enemies, Cicero, who had been his pupil, defended him in an elegant oration, which is still extant. Roscius wrote a treatise, in which he compared, with great talent, the profession of the orator with that of the comedian; of both which he was a competent judge. He died about A. A. C. 60.

ROSCOMMON (Wentworth Dillon), earl of, a celebrated poet of the seventeenth century, born in Ireland, under the administration of the first earl of Strafford, who was his uncle, and from whom he received the name of Wentworth at his baptism. He passed his infancy in Ireland; after which the earl of Strafford sent for him into England, and placed him at his own seat in Yorkshire, under the tuition of Dr. Hall, afterwards bishop of Norwich, who instructed him in Latin. On the earl of Strafford's impeachment he went to complete his education at Caen in Normandy; and after some years travelled to Rome. He returned to England soon after the Restoration, and was made captain of the band of pensioners; but a dispute with the lord privy-seal obliged him to resign his post, and revisit Ireland, where the duke of Ormond appointed him captain of the guards. Being attacked one night when coming out of a gaming house by three ruffians, he had despatched one of them, when a disbanded officer coming past generously took his part and disarmed the other, on which the third fled. The earl next day rewarded his brave assistant by resigning to him his post of captain of the guards. He returned to London, was made master of the horse to the dutchess of York, and married the lady Frances, eldest daughter of Richard earl of Burlington. He here distinguished himself by his writings. In 1683 he was seized with the gout; and, being too impatient of pain, he permitted a French empiric to apply a repelling medicine to give him relief; which drove the distemper into his bowels, and put a period to his life in January 1684. He was buried with great pomp in West-

minster-abbey. His poems, which are not numerous, are in the body of English poetry collected by Dr. Johnson. His Essay on Translated Verse, and his translation of Horace's Art of Poetry, have great merit.

ROSCOMMON, a county of Ireland, in the province of Connaught, bounded on the east by the counties of Leitrim, Longford, and Meath; on the north by Sligo and Leitrim; on the south by Galway; and on the west by part of Galway and Mayo, being about forty-seven miles in length, and nine to twenty-nine in breadth. It is very fruitful, and in general level, having but few hills. It yields excellent corn, as well as pasture; but there are some extensive bogs. The chief town is Athlone, but the assizes are held at Roscommon, the shire town, situated sixty-nine miles W. N. W. of Dublin.

ROSCOE, William, was born in 1752. His parents were in an humble sphere of life, and could only afford him a common school education; and even this was interrupted. At an early age, he was articled to an attorney in Liverpool; and this obliged him to study the Latin language; but he did not confine himself to what was necessary to his profession, and by dint of hard study, he read and made himself master of the most distinguished Latin classics. In this he was assisted by a friend. He next studied the Italian and French languages, and in the former he became uncommonly proficient. He still found time to attend to his business, and to peruse the English poets. At the age of sixteen, he commenced poet, and composed Mount Pleasant, a descriptive poem. Having finished his clerkship, he was taken into partnership, by Mr. Aspinall, an attorney of considerable practice; and he carried on the whole of the business, to which he paid a strict attention. During this period he contracted a friendship with doctor Enfield and doctor Aikin. Painting and statuary were also objects of his attention, and, in 1773, he read, at the society in Liverpool, an ode on those subjects, and also sometimes read lectures there. When the question of the slave-trade was brought before the public, Mr. Roscoe took a warm part in favor of the abolition, and most cordially joined Mr. Clarkson in his endeavors. He wrote a reply to a Spanish Jesuit on that subject. His Scriptural Refutation of a Pamphlet on the Licitness of the Slave-Trade, and his Wrongs of Africa, appeared in 1788; and, in 1795, he brought out the work which has gained him so much celebrity—the Life of Lorenzo de' Medici. About the year 1797, Mr. Roscoe retired from the practice of an attorney, and entered himself as a student of Gray's Inn, with a view to the bar. During this period, he had leisure for other studies, and published the Nurse, a poem, from the Italian, and wrote the Life and Pontificate of Leo X. Though the Life of Leo is not equal to his Lorenzo, it is a composition which displays talent and extensive research. Mr. Roscoe being attached to the whig party, they supported him as a candidate to represent Liverpool, and he was successful, but at the next election was thrown out. He had, some time before, entered into business at Liverpool as a banker, but in this was unfor-

tunate. He died in June, 1831. Mr. Roscoe was the author of several political pamphlets, and the great mover and supporter of several public works in Liverpool. To the botanic garden and to the Athenæum he lent much effective assistance. His Life and Correspondence has been published by his son.

ROSE, <i>n. s.</i>	} Fr. Dan. Swed. and Teut. <i>rose</i> ; Lat. Ital. and Span. <i>rosa</i> . A flower. For the phrase 'to speak under the rose,' see the extract from Browne: roseate and <i>rosed</i> mean rosy; red; blooming: rosemary (Lat. <i>ros marina</i>), a weed; a herb: <i>rosenoble</i> , an ancient English gold coin stamped with a rose: <i>rose-water</i> , water distilled from the rose: <i>roset</i> , a red color: <i>rosier</i> (Fr. <i>rosier</i>), a rose-bush: <i>rosy</i> , resembling the bloom, color, or fragrance of the rose.
ROSEATE, <i>adj.</i>	
ROSED,	
ROSEMARY, <i>n. s.</i>	
ROSENBLE,	
ROSEWATER,	
ROSET,	
ROSIER,	

By desiring a secrecy to words *epoke under the rose*, we mean, in society and comotation, from the ancient custom in symposiack meetings, to wear chaplets of roses about their heads. *Browne.*

Attend him with a silver basin
Full of *rosewater*.

Shakespeare

Around their cell

Set rows of *rosmary* with flowering stem. *Dryden.*

While blooming youth and gay delight
Sit on thy *rosy* cheeks confest,

Thou hast, my dear, undoubted right

To triumph o'er this destined breast. *Prior.*

ROSE, in botany. See ROSA.

ROSE, CHINA. See HIBISCUS.

ROSE, DOG. See ROSA.

ROSE, GUELDER. See VIBURNUM.

ROSE, ROCK. See SISTUS.

ROSE ROOT. See RHODIOLA.

ROSEMARY. See ROSMARINUS.

ROSEMARY, WILD. See LEDUM.

ROSES, CONSERVE OF. See PHARMACY.

ROSES, ESSENTIAL OIL OF, or OTTO OF ROSES, an essential oil obtained from roses. It may be made in the following manner:—A quantity of fresh roses, for example forty pounds, are put in a still with sixty pounds of water, the roses being left as they are with their calyxes, but with the stems cut close. The mass is then well mixed together with the hands, and a gentle fire is made under the still; when the water begins to grow hot, and fumes to rise, the cap of the still is put on, and the pipe fixed; the chinks are then well luted with paste, and cold water put on the refrigeratory at top: the receiver is also adapted at the end of the pipe; and the fire is continued under the still, neither too violent nor too weak. When the impregnated water begins to come over, and the still is very hot, the fire is lessened by gentle degrees, and the distillation continued till thirty pounds of water are come over, which is generally done in about four or five hours; this rose-water is to be poured again on a fresh quantity (forty pounds) of roses, and from fifteen to twenty pounds of water are to be drawn by distillation, following the same process as before. The rose-water thus made and cohobated will be found, if the roses were fresh and good, and the distillation carefully performed highly scented

with the roses. It is then poured into pans either of earthenware or of tinned metal, and left exposed to the fresh air for the night. The otto or essence will be found in the morning congealed, and swimming on the top of the water; this is to be carefully separated and collected either with a thin shell or a skimmer, and poured into a vial. When a certain quantity has thus been obtained the water and faeces must be separated from the clear essence, which, with respect to the first, will not be difficult to do, as the essence congeals with a slight cold, and the water may then be made to run off. If, after that, the essence is kept fluid by heat, the faeces will subside, and may be separated; but if the operation has been neatly performed these will be few. The remaining water should be used for fresh distillations instead of common water, at least as far as it will go.

The following is the method commonly pursued in India, whence great quantities have been exported:—'Take a very large glazed earthen or stone jar, or a large clean wooden cask; fill it with the leaves of the flowers of roses, very well picked, and freed from all seeds and stalks; pour on them as much pure spring water as will cover them, and set the vessel in the sun in the morning at sun-rise, and let it stand till the evening; then take it into the house for the night; expose it, in this manner, for six or seven successive days, and at the end of the third or fourth day a number of particles, of a fine yellow oily matter, will float on the surface, which, in two or three days more, will gather into a scum, which is the otto of roses. This is taken up by some cotton, tied to the end of a piece of stick, and squeezed with the finger and thumb into a small phial, which is immediately well stopped; and this is repeated for some successive evenings, or while any of this fine essential oil rises to the surface of the water.' Dr. Donald Monro, who communicated this receipt to the Royal Society of Edinburgh, says, that he has been informed, that some few drops of this essential oil have more than once been collected by distillation in London, in the same manner as the essential oils of other plants.

The ROSE-NOBLE was first struck in the reign of Edward III. It was formerly current at 6s. 8d., and so called because stamped with a rose. See COINS.

ROSEAU, or Charlotte Town, the capital of Dominica, in the West Indies, about seven leagues from Prince Rupert's Bay. It stands on a point of land on the south-west side of the island, which here forms Woodbridge's Bay on the north, and Charlotteville Bay to the south. Roseau contains more than 500 houses, besides negro cottages. It was once a much larger place. Long. 61° 27' W., lat. 15° 25' N.

ROSETTA, a town of Egypt, on that branch of the Nile called by the ancients the Bolbitine, and which forms now one of the two great channels by which it enters the sea. It is called the canal of Rosetta. This city appears to have been built by one of the caliphs. In the thirteenth century it was an inconsiderable place; but, as the canal of Alexandria became impassable, Rosetta rose into importance as a *dépôt*, and now

forms the medium point of communication between that city and Cairo. The streets are narrow; and each story projects over that beneath till at the top the opposite houses nearly meet; but the houses are not, as in most other parts of Egypt, composed of mud, but of a dingy red brick, often plastered over and white-washed. Upon the whole, however, Rosetta has a neat compact appearance for an eastern town, and its environs are delightful, being completely embosomed in a grove of date, banana, and sycamore trees. The orange, pomegranate, and henne, here also blend their perfumes; and the palm towers over all, adding magnificence to luxuriance. The intervals are filled with esculent plants. Numerous birds inhabit these groves, particularly the turtle-dove, which is held sacred, and approaches the habitations of mankind without dread. The opposite side of the Nile exhibits the richest part of the Delta. The inhabitants of Rosetta and the neighbourhood are milder and more civilised than those of other parts of Egypt: they are chiefly employed in agriculture, and contain a smaller proportion of the Bedouin tribes. Though less turbulent, however, than the inhabitants of Alexandria or Cairo, yet, being less accustomed to Christians, they view them with more hatred. Rosetta manufactures red cotton yarn, flax, linen, and silk dyes, for the oriental dresses: and here is an extensive exportation of rice. The quay is large and well built; the merchants being chiefly Turks, and natives of Syria. Copts form a considerable proportion of the population. Long. 30° 28' 35" E., lat. 31° 24' 31" N.

ROSICRUCIANS, a name assumed by a sect of hermetical philosophers, who arose in Germany in the beginning of the fourteenth century. They bound themselves together by some solemn secret, which they all swore inviolably to preserve; and obliged themselves, at their admission into the order, to a strict observance of certain established rules. They pretended to a superior acquaintance with all sciences, and chiefly medicine. They pretended to be masters of many important secrets; and, among others, of the philosopher's stone; all which they affirmed to have received by tradition from the ancient Egyptians, Chaldeans, the Magi, and Gymnosophists. The denomination appears to be derived from chemistry. It is not compounded, says Mosheim, as many imagine, of the words *rosa* and *crux*, rose and cross, but of *ros*, dew, and *crux*. Of all natural bodies dew was deemed the most powerful solvent of gold; and the cross, in the chemical language, is equivalent to light, because the figure of a cross + exhibits at the same time three letters, of which the word *LVX*, or light, is compounded. Hence a rosicrucian philosopher is *æc* who, by the assistance of the dew, seeks for light, or the philosopher's stone. See Gassend's *Examen Philosophiæ Fluddanæ*, sect. 15, tom. iii. p. 261; and Renaudot's *Conférences Publiques*, tom. iv. p. 87. At the head of these fanatics were Robert Fludd, an English physician, Jacob Behmen, a mystic writer, and Michael Mayer. The principles which serve as a kind of centre of union to the rosicrucian society are the following:—They all maintained that the lissolu-

tion of bodies by fire is the only way by which men arrive at the first principles of things. They all acknowledged a certain analogy and harmony between the powers of nature and the doctrines of religion, and believed that the deity governed the kingdom of grace by the same laws with which he ruled the kingdom of nature; and hence they used chemical denominations to express the truths of religion. They all held that there is a sort of divine energy or soul, diffused through the frame of the universe, which some call the archeus, others the universal spirit, &c. They all speak in the most superstitious manner of what they call the signatures of things, of the power of the stars over all corporeal beings, and their particular influence upon the human race, of the efficacy of magic, and the various ranks and orders of demons. These demons they divided into two orders, sylphs and gnomes; from which system Pope borrowed his beautiful machinery of the Rape of the Lock. In fine, the rosicrucians and all their fanatical followers agreed in throwing out the most crude incomprehensible notions and ideas, in the most obscure, quaint, and unusual expressions.—Mosh. Eccl. Hist.

ROSIN, *n. s.* & *v. a.* } Properly resin. Fr.
Ros'IN, *adj.* } *resine*; Lat. *resina*.
Inspissated turpentine; a juice of the pine: the adjective corresponding.

The best soil is that upon a sandy gravel or *rosiny* sand. *Temple.*

The billows from the kindling prow retire,
Pitch, *rosin*, seaword on red wings aspire. *Garth.*
Bouzebeus who could sweetly sing,
Or with the *rosined* bow torment the string. *Gay.*

Tea contains little of a volatile spirit; its *rosin* or fixed oil, which is bitter and astringent, cannot be extracted but by rectified spirits. *Arbutnot.*

ROSINUS (John), a learned German antiquary, born at Eisenach, in Thuringia, about 1550. He was educated at the university of Jena; became rector of a school at Ratisbon, in 1579; and afterwards minister of a Lutheran church at Wickerstadt, in Weimar. In 1592 he was called to Naumburgh cathedral, in Saxony, and died there of the plague in 1626. He published several works, the chief of which is his *Antiquitatum Romanarum, libri x.*; Basil, 1583; folio.

ROSMARINUS, rosemary, in botany, a genus of the monogynia order, and diandria class of plants; natural order forty-second, verticillatæ: cor. unequal, with its upper lip bipartite; the filaments are long, curved, and simple, each having a small dent. There are two species, viz. :—

1. *R. angustifolia*, the narrow-leaved rosemary; and,

2. *R. latifolia*, the broad-leaved rosemary. This last has larger flowers and a stronger scent than the other. There are two varieties; one of the first sort with striped leaves, called the silver rosemary; and the other with yellow, called the gold-striped rosemary. These plants grow naturally in the south of France, Spain, and Italy; where, upon dry rocky soils near the sea, they thrive prodigiously, and perfume the air in such a manner as to be smelt at a great distance from

the land. However, they are hardy enough to bear the cold of our ordinary winters, provided they be planted upon a poor, dry, gravelly soil, on which they will endure the cold much better than in a richer ground, where, growing more vigorously in summer, they are more apt to be injured by frost in winter; nor will they have such a strong aromatic scent on a dry and barren soil. They are propagated either by slips or cuttings. Rosemary has a fragrant smell, and a warm pungent bitterish taste, approaching to that of lavender; the leaves and tender tops are strongest; next to these the cup of the flower; the flowers themselves are considerably the weakest, but most pleasant. Aqueous liquors extract a great share of the virtues of rosemary leaves by infusion, and elevate them in distillation; along with the water arises a considerable quantity of essential oil, of an agreeable penetrating smell. Pure spirit extracts in great perfection the whole aromatic flavor of the rosemary, and elevates very little of it in distillation; hence the resinous mass left upon extracting the spirit proves an elegant aromatic, very rich in the peculiar qualities of the plant. The flowers of rosemary give over great part of their flavor in distillation with pure spirit; by watery liquors their fragrance is much injured; by beating destroyed.

ROSS, or ROSS-SHIRE, a county of Scotland, including Tayne and Cromarty, stretching eighty miles in length, and seventy-eight in breadth, bounded on the north and north-east by Strathnaver and Sutherland; on the east by Cromarty and the Murray Frith; on the south by Inverness; and on the west by the Atlantic Ocean. The county of Ross takes up the whole breadth of the island; and, being much indented with bays and inlets from both seas, appears of a very irregular form. These bays afford safe harbours for shipping, especially that of Cromarty. The valleys are fertilised by several rivers, among which are the Beaully, the Conon, the Ockel, the Charron, and the Braan; besides a number of fresh water lakes, which abound in this county. The valleys are generally covered with wood; and near Alfrag there are forests of fir, well stocked with game. Great numbers of black cattle, horses, sheep, and goats, are fed upon the mountains; and the sea, rivers, and lakes, abound with fish and fowl. The lakes on the west coast abound with herrings, particularly Loch Eu, about nine miles long and three broad; one part of this is formed by a bay or inlet of the sea; and the other is a lake of fresh water. Though the middle part of Ross, called Ardross, is mountainous and barren, the north-east part on the river Charron, and Frith of Tayne, are fruitful and abound with villages. Ardmeanach, part of the peninsula, betwixt the bays of Cromarty and Murray, is a barony, which of old bestowed a title on the king of Scotland's second son. The district of Glenelchaig, on the south-west, belonged to the earl of Seaforth, chief of the Mackenzies; but the last earl, having joined in the rebellion, was in 1719 defeated at Glenshiel in this quarter, with a small body of Spaniards. His auxiliaries were taken; he escaped to the continent; but his

estate and honors were forfeited. The king's troops dismantled the castle of Yion-donnen, situated on an island in a bay that fronts the Isle of Sky, where he had erected his magazine. Ross was chiefly peopled by the Mackenzies and Frasers, two warlike Highland clans. There are fisheries carried on along the coast; but their chief traffic is in sheep and black cattle. The county sends a member to the imperial parliament; and Tayne and Dingwall join with Dornock, Wick, and Kirkwall, in electing a representative for these boroughs.

Ross, an ancient and populous town of Herefordshire, 115 miles from London, with a good trade, on the river Wye. It was made a free borough by Henry III. It is famous for cyder. Its market and fairs are well stored with cattle and other provisions. At the west end of it there is a fine broad causeway, constructed by Mr. John Kyrle, the celebrated Man of Ross, who also raised the spire 100 feet, and enclosed a piece of ground with a stone wall, and sunk a reservoir in its centre, for the use of the inhabitants of the town. He died in 1714, aged ninety, with the blessing of all who knew him, both rich and poor.

Ross, NEW, a borough town of Ireland, in the county of Wexford, and province of Leinster, on the side of a hill sixty-seven miles from Dublin. It was formerly walled, and some of the gates still remain. It lies on the Barrow, which is here very deep, and ships of burden can come up to the quay. The church is large, but the custom-house and quay are both small. It is one of the staple ports for exporting wool; beef and butter are the principal articles exported. It has a barrack for a troop of horse, and a ferry into the county of Kilkenny. Near this town is a charter-school. It was formerly fortified, and adorned with many religious houses, among which was a crowded friary, built on the summit of a hill in the town; but, one of the friars having killed a principal inhabitant, the people rose, put the friars to death and destroyed the friary; on the site of which the monastery of St. Saviour, for conventual Franciscans, was afterwards erected by Sir John Devereux; and the east end of this last building is now the parish church. A friary for Eremites, following the rule of St. Augustine, was also founded here in the reign of Edward III. This town was the scene of a very bloody battle, between the Irish rebels and the king's troops, on the 5th of June, 1798. Each party was alternately in possession of the town, and the greater part of it was burnt down during the contest. About 3000 of the rebels were killed, but each party boasted of victory. New Ross lies eleven miles north by east of Waterford, and nineteen south of Wexford.

Ross (Alexander), a very voluminous writer, who has been often confounded with the bishop of Edinburgh. His best work is his *Πανόρεια*, or, A View of all Religions. Butler, in his Hudibras, refers to the number and extent of his writings,

There was an ancient sage philosopher,
Who had read Alexander Ross over.

Ross (David), a celebrated English actor, born in 1728, he was disinherited by his father for going upon the stage. He had been educated at Westminster school; and made his first appearance upon Covent Garden Theatre in 1753, where he continued till 1778, when he was left out of the engagement by the managers, and reduced to great distress; though he still had a small annuity from a mortgage on the Edinburgh Theatre, of which he was previously patentee. But one day he was agreeably surprised by receiving a bank note for £60, with an anonymous line, mentioning that it came from an old school-fellow, and directing him to a banker from whom he would receive the same sum annually. This was continued for life, but the generous donor was still unknown, till the banker's clerk inadvertently blundered out the name of admiral Barrington. In 1788 he was laid aside from the stage by breaking his leg. He had married the celebrated Fanny Murray. He died at London, September 14th, 1790.

ROSSO, or MAIKE ROUX, an eminent Italian painter, born at Florence in 1496. He was entirely self taught, and acquired great skill, both in history and portrait painting. In the church of St. Salvator, at Rome, is a fine picture by him of the beheading of John the Baptist. He died in 1541, aged forty-five.

ROSSANO, a town of Naples, in Calabria Citra, situated on a rocky eminence. It is the see of an archbishop, and the environs are fertile in olives, capers, and saffron. It is said that, so lately as the sixteenth century, the inhabitants of this town (about 70,000) spoke the Greek language, and followed the rites of the Greek church. Thirty miles north-east of Cosenza, and 110 N. N. E. of Reggio.

ROS SOLIS, a spirituous liquor, composed of burnt brandy, sugar, cinnamon, and milk; and sometimes perfumed with a little musk. It had its name from being at first prepared from the juice of the plant *ros solis*, or *drosera*.

ROSTOV, a town of European Russia, in the government of Jaroslav, on the lake Nero. It is divided into the town and suburb, and is above five miles in circumference. It contains an ancient cathedral, an archiepiscopal palace, a seminary, and five churches; and carries on an intercourse with Astracan, Moscow, and St. Petersburg. Of the lower classes a number are gardeners, and some of them go to Poland for employment. Inhabitants 5000. Forty miles S. S. W. of Jaroslav.

Rostov, a fortified town of the south-east of European Russia, on the Don, between Azov and Tscherkask.

ROSTRATED, *adj.* Lat. *rostratus*. Adorned with beaks of ships.

He brought to Italy an hundred and ten rostrated galleys of the fleet of Mithridates. *Arbutnot.*

ROSTRUM, *n. s.* Lat. *rostrum*. The scaffold whence orators anciently harangued.

Vespasian erected a column in Rome, upon whose top was the prow of a ship, in Latin *rostrum*, which gave name to the common pleading place in Rome, where orations were made, being built of the prows of those ships of Antium which the Romans overthrew. *Peacham on Drawing.*

Myself shall mount the *rostrum* in his favour,
And strive to gain his pardon from the people.

Addison.

ROSTRUM, the beak, an important part of the ancient ships of war, called by the Greeks *επιβολου*, made of wood, fortified with brass, and fastened to the prow so as to strike the enemy's vessels and sink them. The first rostra were long and high, but afterwards they were made short and strong by the contrivance of Aristo, a Corinthian : and placed so low that they could pierce the enemy's ships under water. Also a part of the Roman forum, wherein orations, pleadings, funeral harangues, &c., were delivered. The rostrum was a kind of chapel, furnished with a suggestum, or eminence, where the orator stood to speak. It was so called because at first adorned with the rostra or beaks of the ships taken from the Antialæ in the first naval victory obtained by the Romans.

ROT, *v. n., v. a., & n. s.* } Saxon, *rotan* ;
ROT'TEN, *adj.* } Belg. and Swed.

ROT'TENNESS, *n. s.* } *rotten*. To putrefy ;
lose the cohesion of parts : make putrid : putridity ; a disease among sheep : rotten and rottenness corresponding in sense.

Who brass as *rotten* wood ; and steel no more
Regards than weeds. *Sandys's Paraphrase.*

They were left moided with dirt and mire, by reason of the deepness of the *rotten* way.

Knolles's History of the Turks.

A man may *rot* even here. *Shakspeare.*

From hour to hour we ripe and ripe,
And then from hour to hour we *rot* and *rot*. *Id.*

Trust not to *rotten* planks. *Id.*

O bliss-breeding sun, draw up from the earth
Rotten humidity ; below thy sister's orb
Infect the air. *Id. Timon.*

Diseased ventures,

That play with all infirmities for gold,
Which *rottenness* lends nature ! *Shakspeare.*

No wood such that was cut down alive, but such as was *rotted* in stock and root while it grew.

Bacon.

There is by invitation or excitation ; as when a *rotten* apple lieth close to another apple that is sound ; or when dung, which is already putrefied, is added to other bodies. *Id.*

In an unlucky grange, the sheep died of the *rot*, the swine of the mange, and not a goose or duckling throve. *Ben Jonson.*

They overwhelm their panch daily with a kind of *flat rotgut*, we with a bitter dreggish small liquor.

Harvey.

The cattle must of *rot* and murrain die. *Milton.*

The wool of Ireland suffers under no defect, the country being generally full-stocked with sheep, and the soil little subject to other *rots* than of hunger. *Temple.*

Frowning Auster seeks the southern sphere,
And *rots*, with endless rain, the' unwholesome year. *Dryden.*

They serewood from the *rotten* hedges took,
And seeds of latent fire from flints provoke. *Id.*

Brandy scarce prevents the sudden *rot*
Of freezing nose and quick decaying feet. *Philips.*

Being more nearly exposed to the air and weather, the bodies of the animals would suddenly corrupt and *rot* ; the bones would likewise all *rot* in time, except those which were secured by the extraordinary strength of their parts. *Woodward.*

If the matter stink and be oily, it is a certain sign of *rottenness*. *Wiseman's Surgery.*

ROT, a well known disease in the liver of sheep, and other domestic animals, producing general marasmus, and generally evinced by the existence of large quantities of the liver fluke, or fasciola hepatica, in this organ. It has been ascribed to a variety of causes : yet the real cause is still doubtful. See **SHEEP**.

ROTA, a town in Andalusia, Spain, situated on the north side of Cadiz Bay. It has a castle and monastery, but is most remarkable for the wine which is produced on the hills around. It is called in England *rot*, and is considered one of the best kinds produced in the peninsula. Inhabitants 6000. Seven miles N. N. W. of Cadiz.

ROTA ARISTOTELICA, or Aristotle's Wheel, a name given to a celebrated problem in mechanics concerning the motion or rotation of a wheel about its axis ; so called because first noticed by Aristotle. The difficulty is this : while a circle makes a revolution on its centre, advancing at the same time in a right line along a plane, it describes, on that plane, a right line which is equal to its circumference. Now, if this circle, which may be called the deferent, carry with it another smaller circle, concentric with it, like the nave of a coach wheel ; then this little circle, or nave, will describe a line in the time of the revolution which shall be equal to that of the large wheel or circumference itself ; because its centre advances in a right line as fast as that of the wheel does, being in reality the same with it. The solution given by Aristotle is no more than a good explication of the difficulty. The great Galileo next attempted it, but failed, as did also Tacquet, with no better success. After the fruitless attempts of so many great men, M. Dortous de Meyran, a French gentleman, sent a solution to the Academy of Sciences ; which being examined by Messrs de Louville and Soulmon appointed for that purpose, they made their report that it was satisfactory. The solution, is to this effect : the wheel of a coach is only acted on, or drawn in a right line ; its rotation or circular motion arises purely from the resistance of the ground upon which it is applied. Now this resistance is equal to the force which draws the wheel in the right line, inasmuch as it defeats that direction ; of consequence the causes of the two motions, the one right and the other circular, are equal. And hence the wheel describes a right line on the ground equal to its circumference. As for the nave of the wheel, the case is otherwise. It is drawn in a right line by the same force as the wheel ; but it only turns round because the wheel does so, and can only turn in the same time with it. Hence it follows, that its circular velocity is less than that of the wheel, in the ratio of the two circumferences ; and, therefore, its circular motion is less than the rectilinear one. Since then it necessarily describes a right line equal to that of the wheel, it can only do it partly by sliding, and partly by revolving, the sliding part being more or less as the nave itself is smaller or larger.

ROTALA, in botany ; a genus of the monogynia order and triandria class of plants : **CAL** tridentate : **COR.** none : **CAPS.** trilobular and poly-

spermous. Species one only; an annual of the East Indies.

ROTARI (Peter), an eminent Italian painter of history and portraits, born at Verona about 1727. In 1756 he went to Petersburg, where he painted the empress Catharine II. and others of the imperial family.

ROTARY, *adj.* Lat. *rota*. Whirling as ROTATION, *n. s.* } of wheel: the act or state
 ROTATOR. } of whirling: that which gives a circular motion.

Of this kind is some disposition of bodies to rotation from east to west; as the main float and reefloat of the sea, by consent of the universe as part of the diurnal motion. Bacon.

By a kind of circulation or rotation, arts have their successive invention, perfection, and traduction from one people to another. Hale.

The axle-trees of chariots take fire by the rapid rotation of the wheels. Newton's Optics.

This articulation is strengthened by strong muscles; on the inside by the triceps and the four little rotators. Wiseman.

In fond rotation spread the spotted wing,
 And shiver every feather with desire. Thomson.

ROTATION is a term which expresses the motion of the different parts of a solid body round an axis, and distinct from the progressive motion which it may have in its revolution round a distant point. The earth has a rotation round its axis, which produces the vicissitudes of day and night; while its revolution round the sun, combined with the obliquity of the equator, produces the varieties of summer and winter. The mechanism of this kind of motion, or the relation which subsists between the intensity of the moving forces, modified as it may be by the manner of application and the velocity of rotation, is highly interesting, both to the speculative philosopher and to the practical engineer. The precession of the equinoxes, and many other astronomical problems of great importance and difficulty, receive their solutions from this quarter: and the actual performance of our most valuable machines cannot be ascertained by the mere principles of equilibrium, but require a previous acquaintance with certain general propositions of rotatory motion. When a solid body turns round an axis, retaining its shape and dimensions, every particle is actually describing a circle round this axis, and the axis passes through the centre of the circle, and is perpendicular to its plane. In any instant of the motion, the particle is moving at right angles with the radius vector, or line joining it with its centre of rotation. This subject is by no means a speculation of mere curiosity, interesting to none but mathematicians: one of the noblest arts practised by man is capable of receiving very great improvement from a complete knowledge of it; we mean the art of Seamanship. The consideration of it, therefore, might be pursued to a considerable extent—but few professional seamen have the preparatory knowledge necessary for the purpose.

ROTE, *n. s.* Sax. *rot*, merry; old Fr. *roté*. A harp; a lyre. Obsolete: Fr. *routine* seems to be the origin of rote, mere memory.

Woe couth he sing, and playen on a rote.
 Chaucer.

Worthy of great Phœbus' rote,
 The triumphs of Phlegrean Jove he wrote,
 That all the gods admired his lofty note. Spenser.

First rehearse this song by rote,
 To each word a warbling note. Shakespeare.

Speak to the people
 Words *roted* in your tongue; bastards and syllables
 Of no allowance to your bosom's truth. Id.

He rather saith it by rote to himself, than that he
 can thoroughly believe it. Bacon's Essays.

All this he understood by rote,
 And as occasion served would quote. Hudibras.

Learn Aristotle's rules by rote,
 And at all hazards boldly quote. Swift.

ROTHENBURG ON THE TAUBER, an old town of Bavarian Franconia, on a mountain near the Tauber. It has a high school and a public library, said to contain valuable manuscripts. It contains, also, a square and several public buildings: the water in the fountains is raised by machinery from the river. Population 5700. Twenty-eight miles S. S. E. of Wurzburg.

ROTHERAM, or ROTHERHAM, a market-town and parish of the West Riding of York, situated near the conflux of the Rother and Don, six miles north-east of Sheffield and 158 from London. The principal manufactures are those of iron and steel, and there is a very extensive brewery. At the village of Masborough, separated from this town by a bridge, there are very extensive manufactories of all kinds of cast and wrought iron, and also of tinned plates and steel goods. The coal and iron are chiefly supplied from mines in the neighbourhood. The trade of Rotherham is materially assisted by the navigation of the Don. The streets are narrow and irregular and the church is a large building in the form of a cross. It had formerly an ancient chapel on the bridge over the Don. In the town are also two chapels for dissenters, a charity-school, and the Rotherham Independent Academy, for the education of young men proposing to become independent clergymen. Rotherham market is one of the most considerable in Yorkshire for fat cattle and sheep. Here is a commercial bank. Market on Monday.

ROTHERAM, or ROTHERHAM (John), M. D., a celebrated English physician, the son of a dissenting clergyman, tutor of an academy at Kendal, where he was born in 1719. Under his father's instructions he acquired classical learning, and a very general knowledge of the sciences. In 1740 he was sent to the University of Edinburgh, where professor M'Laurin, observing his talents, advised him to give a course of lectures on experimental philosophy. These lectures were well attended; and the profits were devoted to the Royal Infirmary, then building in that city. After this he went to London, studied under Dr. Smellie; and then began practice at Hexham; but soon after settled at Newcastle, where he was highly respected. In 1770 he published a work, entitled A Philosophical Enquiry into the Nature and Properties of Water, wherein he gave an analysis of the Newcastle and many other waters. He married Catharine, daughter of Nicholas Roberts, Esq., of Hexham, whom he left a widow with seven children, dying on the 18th of March, 1787, aged sixty-eight.

ROTHESAY, or **ROTHSAY**, formerly a borough of Scotland, capital of the island and county of Bute. It is well built, and excellently situated for commerce, having a good harbour with a safe anchorage at the bottom of an extensive bay, on the north-west side of the island; opposite to Loch Steven in Cowal. It was erected into a royal borough in 1400, by king Robert III., when its castle was the royal residence. It was then a considerable town, but afterwards declined greatly; so that in 1762 many of the houses were in ruins, and it had only one decked vessel, of no great burden. But under the auspices of the earls of Bute it has rapidly improved. A large cotton mill was erected in 1778. This borough united with Ayr, Irvine, Inverary, &c., in electing a representative, but is now deemed part of Bute. Duke of Rothesay was anciently a title of the prince of Scotland, and was accompanied with suitable revenues, powers, and privileges; and is still one of the titles of the prince of Wales. The only relic of antiquity in this place is the castle, the remains of which are so completely covered with ivy that its walls are hardly visible. The natives still point out the banqueting rooms, and bed-chambers of king Robert II. and III. who inhabited it. It afterwards became the chief residence of the Stuarts till 1685, when it was burnt by the duke of Argyll. It lies seventy miles west of Edinburgh.

ROTHMAN (Christopher), a learned German astronomer of the sixteenth century. He became astronomer to the landgrave of Hesse. He wrote *A Treatise on Comets*; and *Letters on Astronomy to Tycho Brahe*. He died in 1592.

ROTSCHEN-SALM, a sea-port of the Gulf of Finland, at the mouth of the Kymmene, eleven miles W. S. W. of Fredericksham. It has a harbour capable of containing the whole fleet of Russian galleys, and forty ships of the line, and is defended by two forts.

ROTTENSTONE, a mineral found in Derbyshire and used by mechanics for all sorts of finer grinding and polishing, and sometimes for cutting of stones. It is a species of tripoli.

ROTTERDAM, an important commercial city of Holland, on the Maese, which here resembles an arm of the sea. Its plan is triangular, the longest side (above a mile and a half in extent), stretching along the bank of the Maese, at about twenty miles from its mouth. The town is surrounded by a moat, and entered by six gates towards the land, and four towards the water, but has no fortifications. It is also traversed from north to west by the Rotte, a river, or broad canal, which here joins the Maese, and which seems to give name to the city. It is further intersected more than most other towns in Holland, by canals, which divide the half of the town near the river into several insulated spots connected by bridges. Thus, the first stately row of houses facing the Maese, and called the Boomtjes, has behind it a broad and deep canal, parallel to the river. This section is succeeded by a triangular, and next by an oblong division, each containing several streets and quays. Large vessels unload in two great inlets from the Maese, one stretching to the west, and

the other to the north. South-east of the town are two canals, with a basin and dock for the repair of shipping.

The canals are almost all bordered with trees. Next to the Boomtjes comes the Haring-vliet. The other streets are in general long and narrow, and several of them so similar that a stranger has much difficulty in distinguishing them. The houses are convenient, and the peculiar style of Dutch architecture is here usually prevalent. In many the ground floor is not inhabited, but serves with its gate and arched passage as an entrance to the warehouses. The principal public buildings are the exchange (finished in 1736), the church of St. Lawrence, from the top of which may be seen the Hague to the north-west, Leyden to the north, and Dort to the south-east; the old town-house, the admiralty, the academy, the theatre, and the extensive buildings of the East India Company. Rotterdam contains also several commodious market-places, an English Episcopal and a Scotch Presbyterian church. Of scientific collections, it has a cabinet of antiquities, a cabinet of natural history, and a public library. It has also an academy of sciences, instituted in 1771. Rotterdam, as a commercial city, has superior accommodation to Amsterdam, the Maese being open, and the passage free from ice, earlier than in the Zuyder Zee, and a single tide sufficing to carry vessels to the German Ocean. It became a privileged town, and was surrounded with walls, as early as the thirteenth century, owing, like other towns in Holland and Flanders, its increase to the facility of communicating by water not only with the sea, but with the interior. The time of its greatest prosperity was the seventeenth and eighteenth centuries; but after 1795 the invasion of the French, and the war with England suspended the commerce of Holland. It had begun to recover in 1802, when it was again rapidly depressed by the renewal of war; but has recently revived once more. The following is a list of the ports from which most of the vessels arrived in 1817:—

Riga	272	Dantzic	31
London	253	Hull	28
Harwich	110	Kiel	22
Petersburgh	90	Archangel	20
Libau	73	Lisbon	16
Newcastle	62	Bourdeaux	15
Bergen	45	Hamburgh	10

Here, as at Amsterdam, the far greater proportion of tonnage is employed in transporting the commodities of the Baltic, viz. corn, timber, flax, and hemp. In value, however, the merchandise from England, consisting of hardware, cottons, woollens, and other manufactures, exceeds the imports of any other country. From France the chief imports are wine and brandy; and the trade with Brasil, as well as with Spanish America, is becoming more and more considerable. Population about 63,000. Fourteen miles south-east of the Hague, and thirty-six south by west of Amsterdam.

ROTUND, *adj.* } Fr. *rotonde*; Lat. *rotund-*
ROTUNDITY, *n. s.* } *dus.* Round; circular; spherical: the noun substantive corresponding.

Thou, all-shaking thunder,
Strike flat the 'thick rotundity o' the' world.

Shakspeare.

With the *rotundity* common to the atoms of all fluids there is some difference in bulk, else all fluids would be alike in weight.

Greiv.

Who would part with these solid blessings for the little fantastical pleasantness of a smooth convexity and *rotundity* of a globe?

Bentley's Sermons.

The cross figure of the Christian temples is more proper for spacious buildings than the *rotund* of the heathen: the eye is much better filled at first entering the *rotund*, but such as are built in the form of a cross give us a greater variety.

Addison.

Rotundity is an emblem of eternity, that has neither beginning nor end.

Id. on Medals.

ROVE, *v. n. & v. a.* } Danish *ruffiver*, to
RO'VE'R, *n. s.* } range for plunder. To

ramble; range; wander: wander over: a rover is, a wanderer; a robber; pirate: at rover is an obsolete phrase for at random, without particular aim.

Thou'st years upon thee, and thou art too full
Of the wars surfeits, to go *rove* with one
That's yet unbruised.

Shakspeare. Coriolanus.

This is the case of *rovers* by land, as some cantons in Arabia.

Roving the field, I chanced

Bacon's Holy War.

A goodly tree far distant to behold,
Loaden with fruit of fairest colors.

Milton.

Nature shoots not at *rovers*; even inanimates, though they know not their perfection, yet are they not carried on by a blind unguided impetus; but that which directs them knows it. *Glanville's Scepis.*

Providence never shoots at *rovers*: there is an arrow that flies by night as well as by day, and God is the person that shoots it.

South's Sermons.

Men of great roading shew their talents on the meanest subjects; this is a kind of shooting at *rovers*.

Addison.

Cloacina, as the town she *roved*

A mortal scavenger she saw, she loved.

Gay.

Faultless thou dropt from his unerring skill,
With the bare power to sin, since free of will;
Yet charge not with thy guilt his bounteous love,
For who has power to walk has power to *rove*.

Arbuthnot.

I viewed the' effects of that disastrous flame,
Which, kindled by the' imperious queen of love,
Constrained me from my native realms to *rove*.

Pope.

If we indulge the frequent rise and *roving* of passions, we thereby procure an unattentive habit.

Watts.

ROUBILLIAC (Louis Francis), an eminent modern sculptor, a native of France, who settled in England in the reign of George I.; and long stood at the head of his profession. He executed a statue of Handel for Vauxhall, and another of Sir Isaac Newton for Trinity College, Cambridge; but was chiefly employed on sepulchral monuments, among which may be mentioned that of John duke of Argyll in Westminster-abbey; of George I., and of the duke of Somerset, in the senate-house at Cambridge; and his monuments for the duke and duchess of Montagu, at Warkton, in Northamptonshire. Lord Chesterfield said, 'Roubillac was our only statuary, and that other artists were mere stone-cutters.' He had some talent for poetry, and wrote some tolerable French satires. His death took place January 11, 1762, at his residence in St. Martin's Lane.

ROUEN, a large and populous city in the north of France, once the capital of Normandy, at present of the department of the Lower Seine (see NORMANDY), is situated on the right bank of the Seine, in a fertile and pleasant country. Its form is an irregular oval, two miles in length and in one breadth. The streets, though in general straight, are very narrow, so that here is no room for foot pavement; and, as the French have not yet adopted the plan of underground sewers, the eye is constantly offended with a stream of filth running along the middle of the street. A number of houses are of wood, built in an antiquated style, the walls often projecting as they ascend. The most agreeable part of the town is that which adjoins the Seine, the quays being spacious, and bordered with good houses, while the river and its islands, with the beautiful 'Cours,' a walk extending along the opposite bank, the esplanade, and the neighbouring hill of St. Catherine, about 400 feet high, form an assemblage of pleasant objects. The squares are small and insignificant; the one called the Marche aux Veaux contains the statue of the warlike maid of Orleans, who was burned here by the English, as a sorceress, in 1430. The ramparts, being levelled and lined with trees, contain pleasant walks; and the public roads leading to Paris, Havre, and other places, are bordered with trees. The objects of antiquarian research in this city have engaged our attention in the article already referred to. The town-house, or municipality, is the chief civil edifice worth notice; and the barracks are large and commodious. The great hospital is a handsome modern building; and in public markets Rouen is not inferior to any city of France. Of the curiosities of the place, the most interesting, perhaps, is the bridge of boats over the Seine. Rouen is celebrated for its cotton manufactures, but here, as in other parts of France, the goods are less remarkable for taste in the pattern than durability. Rouen has likewise manufactures of woollens, linens, and, to a smaller extent, of paper, iron ware, hats, pottery, wax cloth; also sugar refineries. Dyeing both of woollen and cotton is also conducted with care and success.

The whole of its manufacturing industry is computed to give employment to 50,000 persons, young and old. The great disadvantages of Rouen are the want of fuel, and the dearness of provisions: at the distance of 100 miles to the westward the family of a workman can be supported at a reduction of thirty per cent. But, during the exclusion of British commerce under Buonaparte, it flourished largely; particularly considering its further disadvantage in point of navigation. It is forty-five miles east of Havre, and eighty W. N. W. of Paris.

ROVEREDO, a large and fine town of the Tyrol, Austria, on the left bank of the Adige, was once subject to Venice; but since 1509 it has been under the protection of the empire, and enjoyed privileges which soon made it a staple for the silk manufacture. This branch of industry was at its height about the middle of the eighteenth century. The environs produce tobacco, which, as well as the leather of the town, forms an article of export. There are no

public edifices of consequence, but Roveredo is a well built town, and the marble found in the vicinity has been much used in the construction of the houses. Twenty-eight miles north of Verona, and twelve south by west of Trent.

ROUGE, *n. s.* Fr. *rouge*. Red paint.

ROUGH, <i>adj.</i>	} Saxon, þrupge; Swed. <i>rugg</i> ; Goth. <i>hrock</i> . Rugged; of unequal surface; hairy; hence harsh; severe; rude; terrible; stormy: roughcast is, a rude model,
ROUGHCAST, <i>v. a. & n. s.</i>	
ROUGH'DRAFT, <i>n. s.</i>	
ROUGH'DRAW, <i>v. a.</i>	
ROUGH'EN, <i>v. a. & v. n.</i>	
ROUGH'HEW, <i>v. a.</i>	
ROUGH'HEWN, <i>part. adj.</i>	
ROUGH'LY, <i>adv.</i>	
ROUGH'NESS, <i>n. s.</i>	
ROUGH'WORK.	

or a kind of rough plaster mixed with pebbles: to roughcast is, to mould or form in a rough way: rough-draft, rough-draw, and roughwork, are of similar signification: to roughen is, to make or grow rough: the adverb and noun substantive corresponding.

Ne Mammon would there let him long remain,
For terror of the torments manifold,
In which the damned souls he did behold,
But roughly him bespake. *Spenser.*

A fiend, a fury, pitiless and rough,
A wolf: nay worse, a fellow all in buff. *Shakspeare.*

Come what come may,
Time and the hour run through the roughest day. *Id.*

Some man must present a wall; and let him have some plaster, lome, or roughcast about him to signify wall. *Id.*

There's a divinity that shapes our ends,
Roughhew them how we will. *Id. Hamlet.*

Rebuked, and roughly sent to prison,
The immediate heir of England! was this easy? *Shakspeare.*

A roughhewn seaman, being brought before a justice for some misdemeanour, was by him ordered away to prison; and would not stir; saying, it was better to stand where he was, than to go to a worse place. *Bacon's Apophthegms.*

Roughness is a needless cause of discontent; severity breedeth fear; but roughness breedeth hate; even reprofs from authority ought to be grave and not taunting. *Bacon.*

Nor bodily, nor ghostly negro could
Roughcast thy figure in a sadder mould. *Cleveland.*

The whole piece seems rather a loose model and roughcast of what I design to do, than a complete work. *Digby.*

I hope to obtain a candid construction of this roughhewn ill timbered discourse. *Hovel.*

Strait with a band of soldiers tall and rough
On him he seizes. *Cowley's Davideis.*

When our minds' eyes are disengaged,
They quicken sloth, perplexities unty,
Make roughness smooth, and hardness mollify. *Denham.*

He gave not the king time to prosecute that gracious method, but forced him to a quicker and rougher remedy. *Clarendon.*

The fiend
O'er bog, or steep, through strait, rough, dense, or rare,
Pursues his way. *Milton.*

Before the cloudy van,
In the rough edge of battle ere it joined,
↳ tan advanced. *Id.*

The whole world, without art and dress,
Would be but one great wilderness,
And mankind but a savage herd,
For all that nature has conferred.
This does but roughhew and design,
Leaves art to polish and refine. *Hulibras.*

Divers plants contain a grateful sharpness; as lemons; or an austere and inconcocted roughness, as sloes. *Browne.*

The little roughnesses or other inequalities of the leather against the cavity of the cylinder, now and then put a stop to the descent or ascent of the sucker. *Boyle.*

A ropy chain of rheums, a visage rough,
Deformed, unfeatured, and a skin of buff. *Dryden.*
In merriment they were first practised, and this roughcast unlearned poetry was instead of stage plays for one hundred and twenty years. *Id.*

My elder brothers came
Roughdrafts of nature, ill designed and lame,
Blown off, like blossoms never made to bear;
Till I came finished, her last labour'd care. *Id.*

His victories we scarce could keep in view,
Or polish them so fast as he roughdrew. *Id.*

Such difference there is in tongues, that the same figure, which roughens one, gives majesty to another; and that was it which Virgil studied in his verses. *Id.*

When the diamond is not only found, but the roughness smoothed, cut into a form, and set in gold, then we cannot but acknowledge that it is the perfect work of art and nature. *Id.*

Kind words prevent a good deal of that perverse-ness which rough and imperious usage often produces in generous minds. *Locke.*

Thus you must continue, till you have roughwrought all your work from end to end.

Mozon's Mechanical Exercises.
A tobacco-pipe broke in my mouth, and the spitting out the pieces left such a delicious roughness on my tongue, that I champed up the remaining part. *Speciator.*

Roughness of temper is apt to discountenance the timorous or modest. *Addison.*

Were the mountains taken all away, the remaining parts would be more unequal than the roughest sea; whereas the face of the earth should resemble that of the ealmest sea, if still in the form of its first mass. *Burnet's Theory.*

The booby Phaon only was unkind,
A surly boatman rough as sea and wind. *Prior.*

Such a persuasion as this well fixed, will smooth all the roughness of the way that leads to happiness, and render all the conflicts with our lusts pleasing. *Atterbury.*

Hippocrates seldom mentions the doses of his medicines, which is somewhat surprising, because his purgatives are generally very rough and strong. *Arbutnot on Coins.*

Most by the numbers judge a poet's song,
And smooth or rough with them is right or wrong. *Pope.*

Ah! where must needy poet seek for aid,
When dust and rain at once his coat invade?
His only coat; when dust confused with rain,
Roughens the nap, and leaves a mingled stain. *Swift.*

The Swedes, Danes, Germans, and Dutch attain to the pronunciation of our words with ease because our syllables resemble theirs in roughness and frequency of consonants. *Id.*

The broken landskip,
Ascending, roughens into rigid hills. *Thomson.*
Then what was left of roughness in the grain
Of British natures, wanting its excuse

That it belongs to freemen, would disgust
And shock me.

Cowper.

ROVIGNO, a maritime town of Austrian Illyria, on the coast of Istria. It is built on a rock, which forms two good harbours; but that nearest the town is not considered secure, and is resorted to chiefly by boats and barges. Rovigno is only a mile in circumference, but very populous, containing 10,000 inhabitants, whose chief employments are the pilchard fishery, ship-building, and the sale of wood. The environs produce olive oil and wine, and beautiful marble. Forty miles south of Trieste, and thirty-seven south-west of Fiume.

ROVIGO, a district of Austrian Italy, bounded by the delegations of Venice, Padua, Verona and Mantua, and separated by the Po from the States of the Church. Its superficial extent is about 550 square miles, traversed by a number of rivers; and in many places marshy and unhealthy. It is, however, fertile throughout, the marshes producing fine crops of rice; maize, flax, hemp, and silk, are the other objects of culture. The number of black cattle and horses reared is also large. This district was formerly called Polesino di Rovigo, from the number of canals by which it is intersected. In 1806 the title of duke of Rovigo was given by Buonaparte to Savary, his minister of police. Population 63,000.

Rovigo, the capital of the above district, is situated on the Adigetto, a branch of the Adige, and surrounded with a wall and moat: to the east is a fortified castle. The Palazzo del Podesta, the former residence of the chief magistrate, is situated in a large square, the principal ornament of which is a pillar of stone. The churches here are not worthy of notice. The town is the residence of the bishop of Adria. Population 9000. Eighteen miles N. N. E. of Ferrara, and thirty-five S. S. W. of Venice.

ROUILLE (Peter Julian), a learned French Jesuit, born at Tours, in 1681. He assisted father Carnou in writing the Roman History, in 21 vols. 4to., and died in Paris in 1740, aged fifty-nine.

ROULERS, a considerable town of the Netherlands, in West Flanders, situated on the Mandel. It has a linen-manufacture, the principal product of the surrounding district being flax. The adjacent pastures are rich, and the breed of cattle good: butter is a large article of export. There is here a central school, with eight teachers. Twelve miles N. N. E. of Ypres, and eighteen south of Bruges.

ROUNCEVAL, *n. s.* From Roncesval, a town at the foot of the Pyrenees. A species of pea.

Dig garden,

And set as a dainty thy *runcival* pease. *Tusser.*

ROUND, <i>adj., n. s., v. a., v. n.,</i>	} Fr. <i>ronde</i> ; Ital. <i>rondo</i> ; Teut. Sw. and Dan. <i>rund</i> ; Sp. <i>redondo</i> . Circular ; spherical ; without
ROUND-ABOUT, <i>adj.</i> [<i>adv. & prep.</i>]	
ROUND'EL, <i>n. s.</i>	
ROUND'ER,	
ROUND-HEAD, <i>n. s.</i>	
ROUNDHOUSE,	
ROUND'ISH, <i>adj.</i>	
ROUND'LY, <i>adv.</i>	
ROUND'NESS, <i>n. s.</i>	

angles; smooth: hence unbroken; plain; clear; candid; free; quick; brisk: a round is a circle or circular body; a revolution; rotation; step of a ladder; the rotary walk of an officer, or soldier, on guard: to round is to make circular or spherical; to divest of angles; mould to smoothness; raise into relief; move around; surround; encircle: as a verb neuter, to grow or become round in form; go round: round, as an adverb, signifies every way; in a revolution or rotation; circuitously: as a preposition, about; on every side of; all over: roundel is a round form or figure: rounder, an enclosure; circumvallation: round-head, the old nick-name of the Puritans, from their practice of cropping the hair: round-house, a kind of watch-house: roundish, roundly, and roundness, follow the senses of round, adjective.

The terror of God was upon the cities round about.

Genesis.

The whole period and compass of this speech was delightsome for the roundness, and grave for the strangeness.

Spenser.

She called for a round sum out of the privy purse.

Hooker.

Injoin gainsayers, giving them roundly to understand that where our duty is submission, weak oppositions betoken pride.

Id.

Three thousand ducats! 'tis a good round sum.

Shakspeare.

Let his queen mother all alone intreat him
To shew his griefs; let her be round with him. *Id.*

Hie thee hither,

That I may pour my spirits in thine ear,
And chastise with the valour of my tongue
All that impedes thee from the golden round,
Which fate and metaphisick aid doth seem

To have crowned thee withal. *Id.*

I'll charm the air to give a sound,

While you perform your anticke round. *Id.*

Whence he once attains the utmost round,
He then unto the ladder turns his back,
Looks in the clouds, scorning the base degrees
By which he did ascend. *Id.*

We are such stuff

As dreams are made on, and our little life

Is rounded with a sleep. *Id. Tempest.*

This distempered messenger of wet,

The many-coloured Iris, rounds thine eyes.

Shakspeare.

If you fondly pass our proffered offer,
'Tis not the rounder of your old faced walls
Can hide you from our messengers of war. *Id.*
I was called any thing, and I would have done
any thing indeed too, and roundly too. *Id.*

You'll prove a jolly surly groom,

That take it on you at the first so roundly. *Id.*
The queen, your mother, rounds apace; we shall
Present our services to a fine new prince. *Id.*

Round dealing is the honour of man's nature; and a mixture of falsehood is alike alloy in gold and silver, which may make the metal work the better, but it embaseth it. *Bacon.*

Worms with many feet, which round themselves into balls, are bred chiefly under logs of timber. *Id.*
The Spaniards, casting themselves into roundels, and their strongest ships walling in the rest, made a flying march to Calais. *Id.*

Hirsute roots are a middle sort between the bulbous and fibrous; that, besides the putting forth sap upwards and downwards, putteth forth in round. *Id.*

All sounds whatsoever move round; that is, on

ail sides, upwards, downwards, forwards, and backwards. *Id.*

This lord justice caused the earl of Kildare to be arrested, and cancelled such charters as were lately resumed, and proceeded every way so *roundly* and severely as the nobility did much distaste him.

Davies on Ireland.

Mr. de Mortier *roundly* said that, to cut off all contentions of words, he would propose two means for peace. *Hayward.*

In his satyrs Horace is quick, *round*, and pleasant, and has nothing so bitter. so not so good as Juvenal. *Peacham.*

A gentle *round* filled to the brink,

To this and t'other friend I drink. *Suckling.*

Such new Utopians would have a *round* of government, as some the like in the church, in which every spcak becomes uppermost in his turn. *Holyday.*

No end can to this be found,
'Tis nought but a perpetual fruitless *round*. *Cowley.*

He did foretel and prophesy of him,
Who to his realms that azure *round* bath joined. *Denham.*

Hollow engines, long and *round*d, thick rammed. *Milton.*

The outside bare of this *round* world. *Id.*

Knit your hands, and beat the ground

In a light fantastick *round*. *Id.*

In darkness and with dangers compassed *round*. *Id.*

One foot he centered, and the other turned
Round through the vast profundity obscure. *Id.*

To those beyond the polar circle, day

Had unbenighted shone, while the low sun,

To recompence his distance, in your sight

Had *rounded* still the' horizon, and not known

The east or west. *Id. Paradise Lost.*

They keep watch, or nightly *rounding* walk. *Milton.*

The queen of night,

In her increasing horns, doth *rounder* grow,

'Till full and perfect she appear in show. *Browne.*

His style, though *round* and comprehensive, was incumbered sometimes by parentheses, and became difficult to vulgar understandings. *Fell.*

From a world of phenomena, there is a principle that acts out of wisdom and counsel, as was abundantly evidenced, and as *roundly* acknowledged.

More's Divine Dialogues.

It is not every small crack that can make such a receiver, as is of a *roundish* figure, useless to our experiment. *Boyle.*

Painting is a long pilgrimage; if we do not actually begin the journey, and travel at a *round* rate, we shall never arrive at the end of it. *Dryden.*

They meet, they wheel, they throw their darts afar;

Then in a *round* the mingled bodies run;

Flying they follow, and pursuing shun. *Id.*

All the *rounds* like Jacob's ladder rise;

The lowest hid in earth, the topmost in the skies. *Id.*

Round the world we roam,

Forced from our pleasing fields and native home. *Id.*

If nothing will please people, unless they be greater than nature intended, what can they expect, but the ass's *round* of vexatious changes? *L'Estrange.*

Those sincerely follow reason, but for want of having large, sound, *roundabout* sense, have not a full view of all that relates to the question. *Locke on Understanding.*

When silver has been lessened in any piece carrying the public stamp, by clipping, washing, or *rounding*, the laws have declared it not to be lawful money. *Locke.*

When the mind has brought itself to attention, it will be able to cope with difficulties, and master them, and then it may go on *roundly*. *Id.*

With the cleaving-knife and mawl split the stuff into a square piece near the size, and with the draw-knife *round* off the edges to make it fit for the lathe. *Moxon.*

How then to drag a wretched life beneath
An endless *round* of still returning woes,
And all the gnawing pangs of vain remorse?
What torment's this! *Smith.*

This is the last stage of human perfection, the utmost *round* of the ladder whereby we ascend to heaven. *Norris.*

Your petitioner always kept hospitality, and drank confusion to the *roundheads*. *Spectator.*

They set a *round* price upon your head. *Addison.*

It is not easy to foresee what a *round* sum of money may do among a people who have tamely suffered the Franche Compté to be seized on. *Id. Remarks on Italy.*

Sir Roger heard them upon a *round* trot. *Addison.*

The mouth of Vesuvius has four hundred yards in diameter; for it seems a perfect *round*. *Id.*

Some preachers, prepared only upon two or three points, run the same *round* from one end of the year to another. *Id.*

The figures on our modern medals are raised and *rounded* to a very great perfection. *Id.*

He affirms every thing *roundly*, without any art, rhetoric, or circumlocution. *Id. C. Tarrif.*

Many are kicked down ere they have climbed the two or three first *rounds* of the ladder. *Government of the Tongue.*

At the best 'tis but cunning; and, if he can in his own fancy raise that to the opinion of true wisdom, he comes *round* to practise his deceits upon himself. *Id.*

Till by one countless sum of woes opprest,
Hoary with cares, and ignorant of rest,
We find the vital springs relaxed and worn;
Compelled our common impotence to mourn.
Thus through the *round* of age to childhood we return. *Prior.*

The vilest cockle gaping on the coast,
That *rounds* the ample sea. *Id.*

Bracelets of pearl gave *roundness* to her arm,

And every gem augmented every charm. *Id.*

Pliny put a *round* number near the truth, rather than a fraction. *Arbutnot on Coins.*

Women to cards may be compared; we play
A *round* or two; when used, we throw away. *Granville.*

Paraphrase is a *roundabout* way of translating, invented to help the barrenness, which translators, overlooking in themselves, have apprehended in our tongue. *Felton.*

Can any one tell how the sun, planets, and satellites were *rounded* into their particular spheroidal orbs? *Cheyne.*

If merely to come in, Sir, they go out;

The way they take is strangely *roundabout*. *Pope.*

They marched to some famed *roundhouse*. *Id.*

These accomplishments, applied in the pulpit, appear by a quaint, terse, florid style, *rounded* into periods and cadences, without propriety or meaning. *Swift's Miscellanies.*

Roundness is the primary essential mode or difference of a bowl. *Watts's Logick.*

ROUND, v. n. Sax. *runan*; Germ. *runen*, whence Chaucer writes it *roun* To whisper. Obsolete

Being come to the supping place, one of Kalendar's servants rounded in his ear; at which he retired. *Sidney.*

They're here with me already; whispering, *rounding,*

Sicilia is a so forth; 'tis far gone. *Shakspeare.*

Cicero was at dinner, where an ancient lady said she was but forty: one that sat by rounded him in the ear, she is far more out of the question: Cicero answered, I must believe her, for I heard her say so any time these ten years. *Bacon.*

The fox rounds the new elect in the ear, with a piece of secret service that he could do him.

L'Estrange.

ROUNDDEL, *n. s.* } Fr. *rondelet.* A kind
 ROUN'DELAY. } of poetry which commonly consists of thirteen verses, of which eight are of one kind of rhyme and five of another.

Siker, sike a roundle never heard I none,
 Little lacket Perigot of the best,
 And Willic is not greatly over-gone,
 So wren his under-songs well address. *Spenser.*

To hear thy rimes and roundelays,
 Which thou wert wont in wasteful hills to sing,
 I more delight than lark in summer days,
 Whose echo made the neighbouring groves to ring. *Id.*

Come now, a roundel and a fairy song.

Shakspeare.

The muses and graces made festivals; the fawns, satyrs, and nymphs did dance their roundelays.

Howel.

They listening heard him, while he searched the grove,

And loudly sung his roundelay of love,
 But on the sudden stopped. *Dryden's Knight's Tale.*

ROUNDS, in military matters, a detachment from the main guard, of an officer or a non-commissioned officer and six men, who go round the rampart of a garrison to listen if any thing be stirring without the place, and to see the sentinels be diligent upon their duty, and all in order. In strict garrisons the rounds go every half hour. The sentinels are to challenge at a distance, and to rest their arms as the round passes. All guards turn out, challenge, exchange the parole, and rest their arms, &c.

ROUSE, *n. s.* Teut. *rusch*, half drunk. Hence our word carouse. A dose of liquor rather too large. Not in use.

They have given me a rouse already,
 —Not past a pint as I am a soldier. *Shakspeare.*

No jocund health that Denmark drinks to-day,
 But the great cannon to the clouds shall tell;
 And the king's rouse shall bruit it back again,
 Bespeaking earthly thunder. *Id.*

ROUSE', *v. a., v. n., & n. s.* } Gothic *reisa*;
 Rous'ER, *n. s.* } Sved. *resa*. See

RAISE. To wake up; wake from rest; excite to action; drive from a covert: as a verb neuter to awake from slumber or inaction; be excited: a rouser is the agent or instrument of rousing.

He stooped down, he couched as a lion, and as an old lion; who shall rouse him up? *Gen. xlix. 9.*

As an eagle, seeing prey appear,
 His hairy plumes doth rouse full rudely dight;
 So shaked he, that horror was to hear.

Fairie Queene.

The blood more stirs,
 To rouse a lion, than to start a hare. *Shakspeare.*

Then rouse that heart of thine,
 And whatsoever heretofore thou hast assumed to be,
 This day be greater. *Chapman.*

The unexpected sound
 Of dogs and men his wakeful ear does wound;
 Roused with the noise, he scarce believes his ear,
 Willing to think the illusions of his fear
 Had given this false alarm. *Denham.*

Men, sleeping found by whom they dread,
 Rouse and bestir themselves ere well awake. *Milton.*

Blustering winds had roused the sea. *Id.*
 At once the crowd arose, confused, and high;
 For Mars was early up, and roused the sky. *Dryden.*

I'll thunder in their ears their country's cause,
 And try to rouse up all that's Roman in them. *Addison.*

Richard, who now was half asleep,
 Roused; nor would longer silence keep. *Prior.*

The heat with which Luther treated his adversaries, though strained too far, was extremely well fitted by the providence of God to rouse up a people, the most phlegmatick of any in Christendom.

Atterbury.

Now Cancer glows with Phœbus' fiery car,
 The youth rush eager to the sylvan war;
 Swarm o'er the lawns, the forest walks surround,
 Rouse the fleet hart, and cheer the opening hound. *Pope.*

Melancholy lifts her head;
 Morpheus rouses from his bed. *Id. St. Cecilia.*

And when they smiled because he deemed it near,
 His heart more truly knew that peal too well
 Which stretched his father on a bloody bier,
 And roused the vengeance blood alone could quell
 He rushed into the field, and, foremost fighting, fell *Byron.*

ROUSE (John), an English antiquary of the fifteenth century, who was born in Warwickshire; and lived at Guy's Cliff, near Warwick. He wrote, 1. A Chronicle of the Kings of England; and 2. The Antiquities of Warwick. He died in 1491.

ROUSSEAU (James), an eminent painter, born in Paris in 1630. He studied first under Swanevelt, after which he travelled into Italy, practising in perspective, architecture, and landscape. On his return home he was employed at Marly. He distinguished himself in painting buildings, and, from his knowledge of perspective, Louis XIV. employed him to decorate his hall at St. Germain-en-Laie, where he represented the operas of Lulli. Being a Protestant, he quitted France on the persecution of his brethren, and retired to Switzerland. Louis invited him back: he refused, but sent his designs, and recommended a proper person to execute them. After a short stay in Switzerland, he went to Holland; whence he was invited to England by Ralph duke of Montagu, to adorn his new house in Bloomsbury. Some of his pictures, both in landscape and architecture, are at Hampton Court; and he etched some of his own designs. He died in Soho Square, London, in 1693.

ROUSSEAU (Jean Baptiste), a celebrated French poet, born in Paris in April, 1671. His father, who was a shoemaker, in good circumstances, had him educated in the first colleges of Paris. He distinguished himself while young by several short poetical pieces, and was admitted as an eleve, into the Academy of Inscriptions

and Belles Lettres, in 1701. He attended marshal Tallard into England as his secretary, and contracted a friendship with St. Evremond. On his return to Paris he was admitted at court, till in 1708, he was prosecuted as the author of some couplets, in which the characters of several persons were calumniated, in consequence of which he was banished in 1712 by a decree of the parliament of Paris. After this sentence he lived in foreign countries, where he found illustrious protectors. The count de Luc, ambassador of France in Switzerland, took him with him to Baden in 1714, and presented him to prince Eugenc, who took him to Vienna, and introduced him to the emperor. Rousseau lived about three years with prince Eugene; but having lost his favor, by satirising one of his mistresses, he retired to Brussels, where he afterwards usually resided. It was here that he became acquainted with Voltaire, who admired his poetry, and made him a present of all his works. He came over, in 1721, to England, where he printed a collection of his works, in 2 vols. 12mo., London. This edition, published in 1723, brought him nearly 10,000 crowns, which he placed in the hands of the Osted company, where he soon lost the whole of it. He now found an asylum in the establishment of the duke of Aremberg, whose table was open to him at all times, and who, being obliged, in 1733, to go to the army in Germany, settled on him a pension of 1500 livres. But, having been imprudent enough to publish in a journal that the duke d'Aremberg was the author of those verses for which he himself had been banished France, he was dismissed from his table, and his pride would not allow him to accept the pension after this rupture. The count de Luc and M. de Senozan, receiver-general of the church revenue, now invited him to come privately to Paris, in the hopes of procuring a diminution of the period of his banishment, but all their attempts proved abortive; and after having staid three months at Paris, he returned to Brussels in February, 1740, where he died 1741. M. Seguy, in concert with the prince of la Tour Tassis, published a very beautiful edition of his works, in 3 vols. 4to., agreeable to the poet's last corrections. There is a larger collection in five volumes, which did both injury and honor to his memory, as he in it speaks both in favor of and against the very same persons.

ROUSSEAU (Jean Jacques), a celebrated French writer, born at Geneva in 1712. His father was a watchmaker. His education was but scanty, but he made up for this by self-application. His friends put him apprentice to an engraver, from whom he says he learnt to be idle, and even to steal; at length he eloped from him. Bornex, bishop of Anneci, from whom he solicited an asylum, committed the care of his education to madame de Warrens, a lady who had in 1725 left part of her wealth, and the Protestant religion, to throw herself into the church. By her assistance he went to Turin with letters of recommendation, and was admitted into a seminary there, having been first made a proselyte to the Roman Catholic religion by his benefactress. He was soon disgusted with his new life, which he quitted almost penniless, and was obliged to engage

himself as a footman to a lady of quality. She dying in three months, her nephew procured him another place out of livery. He next commenced teaching music at Chamberi, where he remained till 1741, when he went to Paris, where he was long in very destitute circumstances. Meanwhile he began to emerge from obscurity, and the place of deputy under M. Dupin, farmer general, a man of parts, afforded him temporary relief, and enabled him to be of some benefit to Mad. de Warrens. The year 1750 was the commencement of his literary career. The academy of Dijon had proposed the question: 'Whether the revival of the arts and sciences has contributed to the refinement of manners?' He supported the negative side of the question, and the academy crowned his work. From that period he increased in celebrity. His next work was *A Discourse on the Causes of Inequality among Mankind*, and on the *Origin of Social Compacts*, a work written with a view to prove that mankind are equal; that they were born to live apart from each other; and that they have perverted the order of nature in forming societies. He bestows the highest praise on the state of nature, and depreciates the idea of every social compact. By presenting this performance to the magistrates, he was received again into his native country, and reinstated in all the privileges and rights of a citizen, after having abjured the Catholic religion. He soon however returned, and lived for some time in Paris, and afterwards retired into the country. His *Letter to M. de Alembert* on the design of erecting a theatre at Geneva, in 1757, first drew down upon him the envy of Voltaire, and was the cause of those indignities with which that author never ceased to load him. In 1752 he gave to the theatre a pastoral, *The Village Conjuror*, of which he composed both the poetry and music. His *Dictionary of Music* affords several excellent articles; some of them, however, are very inaccurate. Rousseau, soon after his *Village Conjuror*, published *A Letter on, or rather against, French Music*, in consequence of which he was insulted, menaced, and lampooned. Harmonic fanaticism went even to hang him up in effigy. He next published the *New Heloisa*, an epistolary romance, in six parts, 1761, 12mo. His *Emilius* afterwards obtained him more fame than the *New Heloisa*. This moral romance, which was published in 1762, in 4 vols. 12mo., treats chiefly of education. See *EDUCATION*. He dwelt from 1754 in a small house in the country near Montmorenci; a retreat which he owed to the generosity of a farmer general. The French parliament condemned his *Emilius* in 1762, and entered a criminal prosecution against the author, which forced him to make a precipitate retreat; and he found an asylum in Neuchatel. His first care was to defend his *Emilius* against the archbishop of Paris, by whom it had been anathematised. *The Letters of La Montaigne* appeared soon after; but this work, far less eloquent, and full of envious discussions on the magistrates and clergy of Geneva, irritated the Protestant ministers without effecting a reconciliation with the Romish clergy. The protection of the king of Prussia, to whom Neuchatel belonged, was not

sufficient to rescue him from that obloquy which the minister of Montiers Travers, the village to which he had retired, had excited against him. On the night between the 6th and 7th of September, 1765, some fanatics attacked his house, and, fearing new insults, he in vain sought an asylum in Bern. As this canton was connected with Geneva they did not allow him to remain in the city. Obligated to set out on a journey, in a very inclement season, he reached Strasburg in a destitute situation. He waited there till the weather was milder, when he went to Paris, where Mr. Hume then was, who proposed taking him with him to England. After some stay in Paris, in the disguise of an Armenian, Rousseau set out for London in 1766. Hume, much affected with his situation and his misfortunes, procured for him a very agreeable settlement. He did not however make such an impression on the minds of the English as he had done on the French. The periodical prints were filled with satires against him; and they published a forged letter from the king of Prussia, ridiculing the principles and conduct of this new Diogenes. Rousseau from this time treated Hume as an enemy, who he said had brought him to England with no other view than to expose him to public ridicule; and he therefore returned to France. On the 1st of July, 1770, Rousseau appeared for the first time at the Regency coffee-house, dressed in ordinary clothing, having for some time previous to this worn an Armenian habit. His friends procured for him liberty of staying, on condition that he should neither write on religion or politics. He died of an apoplexy at Ermenonville, belonging to the marquis de Girardin, about ten leagues from Paris, July 2d, 1778, aged sixty-six. This nobleman has erected to his memory a very plain monument, in a grove of poplars, which constitutes part of his beautiful gardens. On his tomb is inscribed in French—'Here reposes the man of Nature and of Truth.' Rousseau, during his stay near Lyons, married madame le Vasseur, his governess, a woman who, without beauty or talents, had gained over him a great ascendancy. There are several small pieces written by him, to be found in a collection of his works published in 25 vols. 8vo. and 12mo, to which there is appended a very insignificant supplement in 6 vols. The most important parts in this collection are selected from his Thoughts; in which the confident sophist and the impious author disappear, and nothing is offered to the reader but the eloquent writer and the contemplative moralist. There were found in his portfolio after his death, Confessions, in twelve books, which were afterwards published. His other works are, 1. The Reveries of a Solitary Wanderer, being a journal of the latter part of his life. 2. Considerations upon the Government of Poland. 3. The Adventures of Lord Edward, a novel, being a kind of supplement to the Nouvelle Heloise. 4. Various Memoirs and Fugitive Pieces, with a great number of letters. 5. Emilia and Sophia. 6. The Levite of Ephraim, a poem. 7. Letters to Sara. 8. An Opera and a Comedy. 9. Translations of the first book of Tacitus's History of the Episode of Olinda and Sophronia, taken from Tasso, &c. &c.

ROUT, *n. s. & v. a.* Goth. and Swed. *rote* Belg. *rot*. A clamorous multitude; a rabble; a tumultuous crowd; confusion: to put to confusion; to assemble in tumultuous crowds.

The next way to end the wars with him, and to rout him quite, should be to keep him from invading those countries adjoining. *Spenser.*

A rout of people there assembled were,
Of every sort and nation under sky. *Id.*

If that rebellion
Came like itself in base and abject routs,
Led on by bloody youth, goaded with rage,
And countenanced by boys and beggary,
You, reverend father, then had not been there.

Shakspeare.
Farmers were to forfeit their holds in case of unlawful retainer, or partaking in routs and unlawful assemblies. *Bacon.*

The meaner sort routed together, and suddenly assailing the earl, in his house, slew him.

Id. Henry VII.

Thy army,
As if they could not stand when thou wer't down,
Dispersed in rout, betook them all to fly. *Daniel.*

Fancy, wild dame, with much lascivious pride,
By twin chameleons drawn, does gaily ride,
Her coach there follows, and throngs round about,
Of shapes and airy forms an endless rout. *Cowley.*

That party of the king's horse that charged the Scots, so totally routed and defeated their whole army that they fled. *Clarendon.*

Nor do I name of men the common rout,
That wandering loose about,
Grow up and perish, as the summer fly. *Milton.*

Their mightiest quelled, the battle swerved,
With many an inroad gored; deformed rout
Entered and foul disorder. *Id. Paradise Lost.*

The inad ungovernable rout,
Full of confusion, and the fumes of wine,
Loved such variety and antic tricks. *Roscommon.*

Harley spies
The doctor fastened by the eyes
At Charing-cross among the rout,
Where painted monsters are hung out. *Swift.*

ROUTE, *n. s.* Fr. *route*. Road; way.
Wide through the furzy field their route they take,
Their bleeding bosoms force the thorny brake. *Gay.*

ROW, *n. s.* Sax. *ra*; Goth. and Swed. *ra*; Teut. *reih*. A rank or file; a number of things ranged in a line.

Lips never part but that they show
Of precious pearl the double row. *Sidney*
After them all dancing on a row,
The comely virgins came with garlands dight,
As fresh as flowers. *Spenser.*

A new born wood of various lines there grows,
And all the flourishing letters stand in rows. *Cowley.*

Where any row
Of fruit trees, overwoody reached too far
Their pampered boughs, and needed hands to check
Fruitless embraces. *Milton's Paradise Lost.*

Where the bright seraphim in burning row,
Their loud uplifted angel trumpets blow. *Milton.*

The victor honoured with a nobler vest,
Where gold and purple strive in equal rows. *Dryden.*

Why round our coaches crowd the white-gloved
beaux,
Why bows the side box from its inmost rows? *Pope.*

Row, *v. n. & v. a.* } Sax. *ropan*; Goth. *rou*.
Row'ER, *n. s.* } To impel a vessel in

water by oars; to drive by oars; a rower is one who manages oars.

He saw them toiling in *rowing*; for the wind was contrary. *Mark vi. 48.*

Some of these troughs or canoes were so great that above twenty men have been found *rowing* in one. *Abbot.*

The swan *rows* her state with oary feet. *Milton.*

The bold Britons then securely *row'd*;
Charles and his virtue was their sacred load.

The watermen turned their barge, and *rowed*
softly, that they might take the cool of the evening. *Waller.*
Dryden.

Four galleys first, which equal *rowers* bear,
Advancing in the watery lists appear. *Id.*

The bishop of Salisbury ran down with the stream
thirty miles in an hour, by the help of butone *rower*. *Addison.*

ROWE (Nicholas), an eminent English poet, the son of John Rowe, esq., serjeant at law, was born at Little Barford, Bedfordshire, in 1673. He acquired a knowledge of the classic authors under Dr. Busby in Westminster school; but poetry was his early and darling study. His father, who designed him for his own profession, entered him a student in the Middle Temple. He made considerable advances in the law; but the love of the belles lettres and poetry stopped him in his career. His first tragedy, *The Ambitious Stepmother*, meeting with universal applause, he laid aside all thoughts of the law. He afterwards composed several tragedies; but he valued himself most upon his *Tamerlane*. The others are the *Fair Penitent*, *Ulysses*, *The Royal Convert*, *Jane Shore*, and *Lady Jane Gray*. He also wrote a poem called *The Biter*, and several poems upon different subjects, which have been published under the title of *Miscellaneous Works*, in one volume, as his dramatic works have been in two. 'Rowe is chiefly to be considered,' says Dr. Johnson, 'in the light of a tragic writer and a translator. In his attempt at comedy, he failed so ignominiously, that his *Biter* is not inserted in his works; and his occasional poems are rarely worthy of either praise or censure. In the construction of his dramas there is not much art. He is not a nice observer of the unities; nor does he much affect the auditor, except in *Jane Shore*, who is always seen and heard with pity. Whence then has Rowe his reputation? From the reasonableness and propriety of some of his scenes, from the elegance of his diction, and the suavity of his verse. He seldom moves either pity or terror, but he often elevates the sentiment; he seldom pierces the breast, but he always delights the ear, and often improves the understanding.' Being a great admirer of Shakspeare, he gave the public an edition of his plays. But the most considerable of Mr. Rowe's performances was a translation of Lucan's *Pharsalia*, which he just lived to finish, but it did not appear in print till 1728, ten years after his death. The duke of Queensberry, when secretary, made him under-secretary. After the duke's death all avenues were stopped to his farther preferment; and during the rest of queen Anne's reign he passed his time in study. On the accession of George I. he was made poet laureat, and one of the land-surveyors of the

customs in the port of London. The prince of Wales conferred on him the clerkship of his council; and the lord chancellor Parker made him his secretary for the presentations. He did not enjoy these promotions long; for he died December 6, 1718, aged forty-five. He was twice married, and had a son by his first wife, and a daughter by his second. He was interred in Westminster Abbey, in the Poet's Corner, opposite to Chaucer.

Rowe (Elizabeth), an English lady, eminent for her writings, born at Ilchester, in Somersetshire, in 1674. She had a taste for both painting and poetry, and was very fond of music. In 1696 a collection of her poems was published. Her paraphrase on the thirty-eighth chapter of Job was written at the request of bishop Ken. She married, in 1710, Mr. Thomas Rowe, the translator of Plutarch's Lives; but intense study soon threw him into a consumption, which put a period to his life in May, 1715, when he was but just twenty-eight. Mrs. Rowe wrote an elegy on his death; and continued to the last moments of her life to express the highest veneration and affection for his memory. Soon after his decease, she retired to Frome, in Somersetshire. In this recess she composed the most celebrated of her works, *Friendship in Death*, and *Letters Moral and Entertaining*. In 1736 she published *The History of Joseph*; a poem written in her younger years. She died of an apoplexy, February 20, 1736-7. In her cabinet were found letters to several of her friends, which she had ordered to be delivered after her decease. The Rev. Dr. Isaac Watts, agreeably to her request, revised and published, in 1737, her *Devout Exercises of the Heart in Meditation and Soliloquy, Praise and Prayer*; and, in 1739, her *Miscellaneous Works*, in prose and verse, were published in 2 vols. 8vo., with an account of her life and writings prefixed.

ROWEL, *n. s. & v. a.* Fr. *rouelle*. The points of a spur turning on an axis: to pierce the skin and keep the wound open.

A rider like myself, who ne'er wore *rowel*
Nor iron on his heel. *Shakspeare. Cymbeline.*

A mullet is the *rowel* of a spur, and hath never but five points; a star hath six. *Peacham.*

He spurred his fiery steed
With gory *rowels* to provoke his speed. *Dryden.*
Rowel the horse in the chest. *Mortimer.*

ROWEN, *n. s.* Teut. *rauke*, grass. After grass.

Then spare it for *rowen*, till Michel be past,
To lengthen thy dairie no better thou hast. *Tusser.*

Rowen is a field kept up till after Michaelmas, that the corn left on the ground may sprout into green.

Notes on Tusser.
Turn your cows, that give milk, into your *rowens*,
till snow comes. *Mortimer's Husbandry.*

ROWLEY (William), a dramatic writer who lived in the reign of Charles I. and was educated at the university of Cambridge. Wood styles him 'the ornament, for wit and ingenuity, of Pembroke Hall, in Cambridge.' He was a great benefactor to the English stage, having left us five plays of his own composing, and one in which Shakspeare afforded him some assistance.

ROWNING (John), an ingenious English mathematician, born in 1699. He was fellow of Magdalen College, Cambridge, and afterwards rector of Anderby, in Lincolnshire. In 1738 he printed, at Cambridge, *A Compendious System of Natural Philosophy*, in 2 vols. 8vo.; reprinted in 1745. He wrote also two pieces in the *Philosophical Transactions*, viz. 1. A Description of a Barometer, wherein the Scale of Variation may be increased at pleasure; vol. xxxviii. p. 39. And, 2. Directions for making a Machine for finding the Roots of Equations universally, with the manner of using it; vol. lx. p. 240. He died in London, November 1771.

ROXANA, a Persian princess, daughter of Darius, who, being taken prisoner by Alexander the Great, captivated her conqueror, who married her. After his death she behaved with great cruelty, for which she was put to death by Cassander. See **MACEDON**.

ROXBURGH, an ancient city of Roxburghshire, once famed for opulence and magnificence, of which very few relics now remain. It stood on a rising ground, opposite Kelso, at the west end of a fertile plain, peninsulated by the Tweed and the Tiviot, near a magnificent Cistercian monastery founded by David I. It was totally destroyed by king James II. and never afterwards rebuilt; and, as its site is now converted into arable fields, the plough has nearly obliterated all traces of its existence. At the point of the peninsula stood the castle, memorable in the Scottish history, as an object of frequent mortal contention between the Scots and English; and before which king James II. was killed by the bursting of a cannon. This castle is now entirely in ruins.

ROXBURGH, or **ROXBURGHSHIRE**, a county of Scotland, so named from the above ancient city, called also Teviotdale, from the Teviot which runs through it; extending about thirty miles from east to west, and fifteen in breadth from the English border to the Blue Cairn in Lauderdale Moor; but of an irregular figure. It is bounded on the north by Lauderdale and Berwickshire; on the east and south-east by Northumberland and Cumberland; on the south and south-west by Annandale; and on the west by Dumfries and Selkirk shires. It is divided into three districts, called Teviotdale, Liddesdale, and Eskdale, from their chief rivers, the Teviot, Liddal, and Esk. On the north and west the county is mountainous, and chiefly appropriated to pasture; but on the south and east considerably level and fertile. The whole abounds with the most romantic scenery, exhibiting the rough appearance of hills, mosses, rocks, and mountains, interspersed with delightful fertile valleys, through which run numerous rivers and rivulets. The chief mountains are the Cheviot and Cockraw Hills, which are situated in what was called the Debateable Lands: from the property of them being often the subject of debate between the two kingdoms, but finally adjudged to Scotland at the Union. This county contains one royal borough, viz. Jedburgh; and several considerable towns, as Kelso, Hawick, Melrose, and Castletown. Before the union of the crowns, while predatory wars were frequent between the

two kingdoms, 10,000 horsemen, well armed and accoutred, could have been raised in twenty-four hours. Even after that period, and before the union of the kingdoms, the profits of a very lucrative contraband trade enriched the people and kept up the population. The recent improvements, however, in cultivation, manufactures, improvements in the breed of sheep and wool, and other arts of peace, are now making up for these deficiencies, and increasing the population and prosperity of the borders of both kingdoms, without danger of interruption and depredations from predatory inroads on either side. This county sends one member to the imperial parliament. There are many ancient forts and castles; and the ancient Roman road, called the Rugged Causeway, can be traced from Hounam to the Tweed.

ROXBURY, a township of the United States, in Norfolk county, Massachusetts, two miles S.S.W. of Boston. It contains many handsome houses and country seats. The soil is in a high state of cultivation, and the inhabitants supply Boston with great quantities of vegetables and fruit. Population 3669.

ROYAL, *adj.* Fr. *royal*; Ital. and **ROYALIST**, *n. s.* } Span. *real, reale*, of Lat. **ROYALIZE**, *v. a.* } *regalis*. Kingly; belonging **ROYALLY**, *adv.* } to or becoming a king **ROYALTY**, *n. s.* } regal; all the derivatives corresponding.

What news from Venice

How doth that *royal* merchant, good Anthonio?

Shakspeare.

Ere you were queen, ay, or your husband king,
To *royalise* his blood, I spilt mine own.

Id.

It shall be my care,

To have you *royally* appointed.

Id.

Draw, you rascal; you come with letters against the king, and take vanity the puppet's part against the *royalty* of her father.

Id. *King Lear.*

Royalty by birth was the sweetest way of majesty: a king and a father compounded into one, being of a temper like unto God, justice and mercy.

Holyday.

Wherefore do I assume

These *royalties*, and not refuse to reign?

The *royal* stock of David.

Id.

Where Candish fought the *royalists* prevailed,
Neither his courage nor his judgment failed.

Waller.

His body shall be *royally* interred,
And the last funeral pomp adorn his hearse.

Dryden.

If they had held their *royalties* by this title, either there must have been but one sovereign, or else every father of a family had as good a claim to *royalty* as these.

Locke.

The old church of England *royalists*, another name for a man who prefers his conscience before his interests, are the most meritorious subjects in the world, as having passed all those terrible tests which domineering malice could put them to, and carried their credit and their conscience clear.

South.

I will, alas! be wretched to the great,
And sigh in *royalty*, and grieve in state.

Prior.

Thrice happy they, who thus in woods and groves
From courts retired, possess their peaceful loves:
Of *royal* maids how wretched is the fate!

Graville.

ROYAL SOCIETY. See **SOCIETY**.

ROYENA, in botany, African bladder-nut; a genus of the digynia order, and decandria class

of plants; natural order eighteenth, bicornes: CAL. urceolated; COR. monopetalous, with the limb revolute: CAPS. unilocular and quadrivalved. Species seven, all Cape herbs.

ROY'NISH, *adj.* Fr. *rogneux*, mangy, paltry. Paltry; sorry; mean; rude.

The *roynish* clown, at whom so oft

Your grace was wont to laugh, is also missing.

Shakspeare.

ROYSE (George), D. D., an English divine, born at Martock, in Somersetsliire, about 1655; and educated at St. Edmund Hall, Oxford. He became chaplain to king William III., and attended him to Ireland in 1690. He was made dean of Bristol, and died in 1708.

ROYSTON, a market town in Hertfordshire. The name of the town is derived from a cross erected in the commencement of the twelfth century by a lady Roise, and hence called Roise's Cross. A monastery was afterwards built near it, and largely endowed. Houses gradually arose round the monastery, and the name was changed to Roise's Town, or Royston. The town is now noted chiefly for its corn trade. The church is an ancient edifice, consisting of a nave, chancel, and aisles. The market is on Wednesday, and it has five annual fairs. Thirty-seven miles north of London.

ROYTELET, *n. s.* Fr. *roytelet*. A little petty king.

Causing the American *roytelets* to turn all magers to that king and the crown of England.

Heylin.

ROZEE (Madame), an extraordinary paintress, born at Leyden in 1632. She neither used oil nor water colors, but wrought on the rough side of the pannel, with a preparation of silk floss, disposed in different boxes, according to the different degrees of bright and dark tints, out of which she applied the colors requisite, and blended, softened, and united the tints with surprising beauty. In this singular manner she executed portraits, landscapes, and historical subjects. She died in 1682, aged fifty.

RUATAN, an island of the bay of Honduras, thirty miles long, and nine wide; fortified by rocks and shoals, which defend the fort, and also by the narrowness of the port, into which only one vessel can enter at a time. Yet it is capable of containing 500 vessels in perfect safety. From the sea this island appears singularly beautiful. It is entirely covered with the cocoanut and other trees; and the soil is fertile. It abounds with deer, wild hogs, Indian rabbits, and birds of many species: parrots are innumerable. The Spaniards have a kind of military station or look-out post here. The small adjoining islands of Helene, Moratte, and Borbutette, are separated from this by a narrow channel, and seem like detached parts of it. In the south are some ports, and besides these, some little channels fit for small vessels. In the west part of the island are meadows, in which mules are bred.

RUB, *v. a.*, *v. n.* & *n. s.* } Welsh, *rhubco*;
RUB'BER, *n. s.* } Teut. *reiber*; Swed.
RUB'STONE. } *rubba*. To scour or

smooth by friction; pass one body over another; to wipe; cleanse; polish; 'to rub up' is to

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excite or to polish; 'rub down,' curry a horse; as a verb neuter, to rub is to fret; make a friction; pass or force a way through difficulty: a rub, the act of rubbing; collision; hence difficulty; hindrance: rubber, the instrument or agent in rubbing; a game; a courtesy: rub-stone, a whetstone.

A cradle for barle, with *rub-stone* and sand.

Tusser.

He, who before he was espied, was afraid, after being perceived, was ashamed, now being hardly *rubbed* upon, left both fear and shame, and was moved to anger.

Sidney.

Look, how she *rub*s her hands,
—It is an accustomed action with her, to seem thus washing her hands.

Shakspeare. Macbeth.

We'll play at bowls,
—'Twill make me think the world is full of *rub*s,
And that my fortune runs against the bias.

Shakspeare.

To sleep! perchance to dream; ay, there's the *rub*.

Id.

Upon this *rub*, the English ambassadors thought fit to demur, and sent to receive directions.

Hayward.

No hunters, that the tops of mountains scale,
And *rub* through woods with toils seek them all.

Chapman.

He expounds the giddy wonder

Of my weary steps, and under

Spreads a path clear as the day,

Where no churlish *rub* says nay.

Crashaw.

The government at that time was by kings, before whom the people in the most formal expressions of duty and reverence used to *rub* their noses, or stroke their foreheads.

Heylin.

Their straw-built citadel now *rubbed* with baln.

Milton.

When his fellow beasts are weary grown,
He'll play the groom, give oats, and *rub* 'em down.

Dryden.

He that once sins, like him that slides on ice,
Goes swiftly down the slippery ways of vice;
Though conscience checks him, yet, those *rub*s gone o'er,

He slides on smoothly, and looks back no more. *Id.*

Servants blow the fire with puffing cheeks, and lay
The *rubbers*, and the bathing sheets display. *Id.*

'Tis as much as one can do to *rub* through the world, though perpetually a doing. *L'Estrange.*

The ass was to stand by, to see two boobies try their title to him by a *rubber* of cuffs. *Id.*

The bare *rubbing* of two bodies violently produces heat, and often fire. *Locke.*

If their minds are well principled with inward civility, a great part of the roughness, which sticks to the outside for want of better teaching, time and observation will *rub off*; but if ill, all the rules in the world will not polish them. *Id.*

The rough or coarse file, if large, is called a *rubber*, and takes off the unevenness which the hammer made in the forging. *Mozon.*

The whole business of our redemption is to *rub* over the defaced copy of the creation, to reprint God's image upon the soul. *South.*

You will find me not to have *rubbed* up the memory of what some heretofore in the city did. *Id.*

In narrow clefts, in the monument that stands over him, catholics *rub* their beads, and smell his bones, which they say have in them a natural perfume, though very like apoplectick balsam; and what would make one suspect that they *rub* the marble with it, it is observed that the scent is stronger in the morning than at night. *Addison on Italy.*

F

A forcible object will *rub out* the freshest colours at a stroke, and paint others. *Collier of the Aspect.*

If butchers had but the manners to go to sharps, gentlemen would be contented with a *rubber* at cuffs.

Id. on Duelling.

Two bones, *rubbed* hard against one another, produce a fetid smell. *Arbuthnot on Aliments.*

An hereditary right is to be preferred before election; because the government is so disposed that it almost executes itself; and, upon the death of a prince, the administration goes on without any *rub* or interruption. *Swift.*

Rub the dirty tables with the napkins, for it will save your wearing out the common *rubbers*. *Id.*

RUBBER, INDIA. See CAOUTCHOUC.

RUBBAGE, *n. s.* } From *rub*; meaning,
RUB'BISH. } at first, dust made by
rubbing. Rubbage is not now used. Ruins of a building; fragments of matter used in building.

What trash is Rome!

What *rubbish*, and what offal! when it serves

For the base matter to illuminate

So vile a thing as Cæsar.

Shakspeare.

Such conceits seem too fine among this *rubbage*.

Wotton.

A fabric, though high and beautiful, if founded on *rubbish*, is easily made the triumph of the winds.

Glanville's Scep sis.

The Almighty cast a pitying eye,

He saw the town's one half in *rubbish* lie. *Dryden.*

When the foundation of a state is once loosened, the least commotion lays the whole in *rubbish*.

L'Estrange.

Knowledge lying under abundance of *rubbish*, his scope has been to remove this *rubbish*, and to dress up crabbed matters as agreeably as they can. *Daven.*

That noble art of political lying ought not to lie any longer in *rubbish* and confusion.

Arbuthnot's History of John Bull.

The enemy hath avoided a battle, and taken a surer way to consume us, by letting our courage evaporate against stones and *rubbish*. *Swift.*

RUBBLE-STONE, *n. s.* From *rub*.

Rubble-stones owe their name to their being rubbed and worn by the water, at the latter end of the deluge, departing in hurry and with great precipitation.

Woodward.

RUBENS (Sir Peter Paul), the most eminent of the Flemish painters, was born in 1577, at Cologne. His father, who was a counsellor in the senate at Antwerp, had been compelled by the civil wars to seek refuge in Cologne, and, during his residence there, Rubens was born. He soon discovered a strong inclination for designing, and his mother, perceiving her son's bias, permitted him to attend the instructions of Tobias Verhaecht, a painter of architecture and landscape. He next became the pupil of Adam Van Ort, but his surly temper quickly disgusted Rubens, whose natural disposition was amiable. He then became the disciple of Octavio Van Vien, or Otho Venius, a painter of singular merit, and who was not only skilled in the principles of his art but also distinguished for critical learning. Rubens now gave up his whole mind to painting, and soon equalled his master. To arrive at that perfection which he already beheld in idea, he travelled through Italy, visiting the most valuable collections of paintings and antique statues with which that country abounds. Having finished some fine paintings for the arch-

duke Albert's palace, he was recommended by him to the duke of Mantua, by whom he was received with the most flattering marks of distinction, and where he studied the works of Julio Romano. He next visited Rome, where he examined the productions of Raphael, and the paintings of Titian and Paul Veronese called him to Venice. He continued in Italy seven years. At length hearing that his mother was ill he hastened to Antwerp, but she died before his arrival. He married soon after, but, his wife dying in four years, he retired from Antwerp, and endeavoured to sooth his melancholy by a journey into Holland. His fame now spread over Europe. He was invited by Mary of Medicis queen of Henry IV. of France to Paris, where he painted the galleries in the palace of Luxemburg. These form a series of paintings which delineate the history of that princess; and afford a decisive proof of his superiority in such compositions. At Paris he became acquainted with the duke of Buckingham, who employed him to explain to Isabella, the wife of Albert the archduke, the cause of the misunderstanding between the courts of England and Spain. In this employment Rubens acquitted himself so well, that Isabella appointed him envoy to the king of Spain, to propose terms of peace. Philip conferred on him the honor of knighthood, and made him secretary to his privy council. Rubens returned to Brussels, and thence passed over into England in 1630 with a commission from the Catholic king to negotiate a peace. He was successful, and a treaty was concluded, and Charles I. treated him with every mark of respect. Having engaged him to paint some of the apartments of Whitehall, he not only gave him a handsome sum of money, but, as an acknowledgment of his merit, created him a knight; and the duke of Buckingham purchased of him a collection of pictures, statues, medals, and antiques, to the value of £10,000. He returned to Spain, where he was highly honored and rewarded for his services. He was made a gentleman of the king's bed-chamber, and secretary to the council of state in the Netherlands. Rubens, however, did not lay aside his profession. He returned to Antwerp, where he married a second wife called Helena Forment, a celebrated beauty. He died on the 30th of May 1640, aged sixty-three, leaving a large fortune to his children. The figure of Rubens was noble, his manners engaging, and his conversation lively. He spoke several languages perfectly, and was an excellent statesman. His house at Antwerp contained one spacious apartment, in imitation of the rotunda at Rome, adorned with a choice collection of pictures which he had purchased in Italy; part of which he sold to the duke of Buckingham. His invention was so fertile that, when he painted the same subject several times, he always supplied something new. The attitudes of his figures are natural and varied, the carriage of the head is peculiarly graceful, and his expression noble and animated. He carried the art of coloring to its highest pitch. The great excellence of Rubens appears in his grander historical compositions; he touched them in such a manner as to give them a lasting force, beauty, and harmony. Yet,

with all his merits, Rubens is accused of want of correctness in designing. Though he had spent seven years in Italy in studying those antiques by which other celebrated artists had modelled their taste; though he had examined them with such minute attention as not only to perceive their beauties, but to be qualified to describe them in a Dissertation which he wrote on that subject; yet he seems never to have divested himself of that heavy style of painting, which, being peculiar to his native country, he had insensibly acquired. The astonishing rapidity, too, with which he painted, made him fall into inaccuracies, from which those works that he finished with care are entirely exempted. Among his finished pieces is the Crucifixion, lately to be seen at Antwerp; but of all his works the paintings in the palace of Luxemburg best display his genius and his style. Algarotti says, that he was more moderate in his movements than Tintoretto, and more soft in his chiaro-scuro than Caravaggio; but not so rich in his compositions, nor so light in his touches as Paul Veronese; in his carnations less true than Titian, and less delicate than Vandyck. Yet he gave his colors the utmost transparency and harmony, notwithstanding their extraordinary deepness; and he had a strength and grandeur of style entirely his own.

RUBIA, in botany, madder, a genus of the monogonia order, and tetrandria class of plants; natural order forty-seventh, stellate: cor. is monopetalous and campanulated; and there are two monospermous berries. There are seven species, of which the most remarkable is the

R. tinctorum, or dyer's madder, so much used by the dyers and calico-printers. This has a perennial root and annual stalk; the root is composed of many long, thick, succulent fibres, almost as large as a man's little finger; these are joined at the top in a head like asparagus, and run very deep into the ground. From the upper part or head of the root come out many side roots, which extend just under the surface of the ground to a great distance, whereby it propagates very fast; for these send up a great number of shoots, which if carefully taken off in the spring, soon after they are above ground, become so many plants. These roots are of a reddish color, somewhat transparent; and have a yellowish pith in the middle, which is tough and of a bitter taste. From this root arise many large four cornered jointed stalks, which in good land will grow five or six feet long, and, if supported, sometimes seven or eight; they are armed with short herbaceous prickles; and at each joint are placed five or six spear-shaped leaves; their upper surfaces are smooth; but their mid rib on the under side is armed with rough herbaceous spines, and the leaves sit close to the branches in whorls. From the joints of the stalk come out the branches, which sustain the flowers: they are placed by pairs opposite; each pair crossing the other; these have a few small leaves towards the bottom, which are by threes, and upwards by pairs opposite: the branches are terminated by loose branching spikes of yellow flowers, which are cut into four parts resembling stars. These appear in June, and are sometimes suc-

ceeded by seeds which seldom ripen in England for any useful purpose connected with dyeing or manufactures. Madder root is used in medicine. It is an ingredient in the icteric decoction of the Edinburgh pharmacopœia. Madder colors the bones of animals who have it mixed with their food: all the bones, particularly the more solid ones, are changed both externally and internally, to a deep red; but neither the fleshy nor cartilaginous parts suffered any alterations: some of these bones macerated in water for many weeks together, and afterwards steeped and boiled in spirit of wine, lost none of their color, nor communicated any tinge to the liquors.

RUBICON, a river of Italy, anciently forming the boundary between Italy and Gaul. Cæsar, by passing this river with his legions, and thus quitting the province assigned him, was deemed to have made war on the republic.

RUBIFIC, *adj.* } Lat. *ruber* and *facio*.
RUBIFORM, *adj.* } Making red: having a red
RUBIFEX, *v. a.* } appearance: to make red:
RUBIFEROUS, *adj.* } red.

While the several species of rays, as the *rubife*, are by refraction separated one from another, they retain those motions proper to each. *Newton.*

Of those rays, which pass close by the snow, the *rubiform* will be the least refracted; and so come to the eye in the directest lines. *Newton's Opticks.*

RUBRIC, *n. s. & adj.* Fr. *rubrique*; Lat. *rubrica*. Directions printed in books of law and prayer-books; so termed, because originally distinguished by being in red ink to red.

No date prefixed,

Directs me in the starry *rubrics* set. *Milton.*

They had their particular prayers according to the several days and months; and their tables or *rubrics*, to instruct them. *Stillingfleet.*

The *rubrick* and the rules relating to the liturgy are established by royal authority, as well as the liturgy itself. *Nelson.*

The light and rays which appear red, or rather make objects appear so, I call *rubrick* or red making. *Newton.*

What though my name stood *rubrick* on the walls. *Pope.*

RUBUS, the bramble, a genus of the polygamia order and icosandria class of plants; natural order thirty-fifth, senticosæ: CAL. quinquefid, petals five; the berry consisting of monospermous acini or pulpy grains. The principal species is the common raspberry, which, with its varieties, demands culture in every garden for the fruit; particularly the common red kind, white, and twice bearing raspberry; all of which are great bearers: but, for the general plantations, the common red and the white kind are chiefly preferred; planting also a share of the twice bearing sort, both as a curiosity and for the sake of its autumnal crops of fruit, which in favorable seasons ripen in tolerable perfection; observing to allow all the sorts some open exposure in the kitchen garden, though they will prosper in almost any situation. The other species are considered as plants of variety, for hardy plantations in the shrubbery. Some of them are also very ornamental flowering plants; particularly the Virginian flowering raspberry, and the double blossomed bramble, which have great

merit as furniture for ornamental compartments; and the white berried bramble, which is a great curiosity. All the other species and varieties serve to diversify large collections.

RUBY, *n. s.* Fr. *rubis*; Span. *rubí*, from Lat. *ruber*. A precious stone of a red color.

Up, up fair bride and call
Thy stars from out their several boxes, take
Thy rubies, pearls, and diamonds forth, and make
Thyself a constellation of them all. *Donne.*

You can behold such sights,
And keep the natural ruby of your cheeks,
When mine is blanched with fear. *Shalapsetre.*

Wounds, like dumb mouths, do ope their ruby
lips. *Id.*

Melpomene would be represented like a manly
lady, upon her head a dressing of pearl, diamonds,
and rubies. *Peacham.*

Thrice upon thy finger's tip,
Thrice upon thy rubied lip.
Desire of wine *Milton.*

Thou could'st repress, nor did the dancing ruby
Sparkling, out-poured, the flavour, or the smell,
Or taste, that cheers the hearts of Gods and men,
Allure thee from the cool crystalline stream. *Id.*

Crowns were on thy royal scutcheons placed,
With sapphires, diamonds, and with rubies graced.
Dryden.

He's said to have a rich face and rubies about his
nose. *Captain Jones.*

RUBY, a precious stone, ranked by Jameson under the head of the spinell, of the color of a bright corn poppy flower. The balass, or pale red inclining to violet; a species of sapphire. There are rubies of different shades of color, but that the most sought after should be scarlet, or fire color; it should be soft and velvety in appearance, and throw forth a glow lively and ardent. When these qualities are eminently displayed, no stone is comparable thereto, and its value surpasses even that of the diamond. The spinell rubies are about half the value of diamonds of the same weight; the balass is valued at 30s. per carat; a perfect ruby, if it weigh more than three carats and a half, is of greater value than a diamond of the same weight. It is most frequently found very small; its common size being that of a large pin-head; and is then very cheap; but it is also found of four, six, or ten carats; and sometimes, though but very rarely, up to twenty, thirty, or forty. It is never found of an angular or crystalliform shape, but always of a pebble-like figure, often roundish, sometimes oblong, and much larger at one end than the other, and resembling a pear, usually more or less flattened on one side. It is commonly so naturally bright and pure on the surface as to need no polishing; it is worn in rings, and in the crowns of princes, in its native state. It is fusible with borax in a strong and long-continued heat, running into a transparent glass of a pale green color: the same effect is produced by microcosmic salt; but with potassa the glass is opaque and differently colored. In the course of experiments made on precious stones, by order of the grand duke of Tuscany, rubies, in the heat which dissipated diamonds, were softened, and lost some of their color, but preserved their form and weight. By addition of a third lens, a further degree of fusion was

given to rubies. Even then rubies could not be made to unite with glass. By having been exposed to this heat, the surface of the rubies which had suffered fusion lost much of their original hardness, and were nearly as soft as crystal. But their internal parts, which had not been fused, retained their hardness. Rubies become electric by being rubbed. They are met with in the mountains of Pegu in the East Indies; and at Ava, Calicut, and Brasil. They are found in the sands of rivers, in an argillaceous earth of a hard texture and greenish color; sometimes they adhere to red rocks. The spinell rubies are met with in Hungary, Silesia, Bohemia, and Brasil. The balass comes principally from Brasil, though some are also brought from the East Indies. The largest ruby known was brought from China to prince Gargarin, governor of Siberia. It came afterwards into the hands of prince Mentchikof, and is at present one of the ornaments of the imperial crown of Russia. According to Pliny, the ancients found considerable difficulty in engraving on this stone: many modern artists have essayed upon it, and among them one of the most successful is a German named Hæfler.

RUD, *v. a.* Sax. *ruðu*, redness. To make red. Obsolete.

Her cheeks, like apples, which the sun had rud-
ded. *Spenser.*

RUDBECK (Olaus), a learned Swedish physician, of an ancient and noble family, born in 1630. He became professor of medicine at Upsal, where he acquired great applause by his extensive knowledge; and died in 1702. His principal works are, 1. *Exercitatio Anatomica, exhibens ductus novos hepaticos Aquosos, et vasa glandularum serosa*, in 4to. He there claims the discovery of the lymphatic vessels. 2. *Athlantica, sive Manheim, vera Japheti posterorum sedes ac patria*, 3 vols. folio; in which he endeavours to prove that Sweden was the country whence all the ancient Pagan divinities and our first parents were derived; and that the Germans, English, French, Danes, Greeks, and Romans, with all other nations, originally came from thence.

RUDBECKIA, in botany, dwarf sunflower, a genus of the polygamia frustranea order, and syngenesia class of plants; natural order forty-ninth, composita; receptacle paleaceous and conical; pappus consisting of a quadridentate margin: CAL. a double series of scaly leaves. Species nine, natives of America.

RUD'DER, *n. s.* Sax. *roðer*; Belg. *roeder*. The instrument of steering a vessel; any thing that guides or governs.

They loosed the rudder bands, and hoisted up the
main-sail, and made towards shore. *Acts xxvii. 40.*

My heart was to thy rudder tied by the string,
And thou shouldst tow me after. *Shakespeare.*

Those that attribute unto the faculty any first or sole power have therein no other understanding, than such a one hath, who, looking into the stern of a ship, and finding it guided by the helm and rudder, doth ascribe some absolute virtue to the piece of wood, without all consideration of the hand that guides it. *Raleigh's History of the World.*

For rhyme the *rudder* is of verses. *Hudibras*.
Thou held'st the *rudder* with a steady hand,
Till safely on the shore the bark did land. *Dryden*.

The **RUDDER**, in navigation, is a piece of timber turning on hinges in the stern of the ship, and which, opposing sometimes one side in the water and sometimes another, turns or directs the vessel this way or that. See **SHIP BUILDING**, and **NAVIGATION**.

RUDDIMAN (Thomas), M. A., the grammarian of Scotland, was born in 1674, at Raggel, in Banff. His father, James Ruddiman, was a farmer, and strongly attached to the house of Stuart. His son was instructed in the principles of Latin grammar at the parish school of Boyndie. At the age of sixteen he became anxious to pursue his studies at the university; but his father, thinking him too young, opposed his inclination. Hearing of the competition trial annually held at King's College, Aberdeen, for a certain number of bursaries, Ruddiman, without the knowledge of his father, set out for that city, where he presented himself as a candidate, and, though he had neither clothes to give him a decent appearance, nor friends to recommend him, he gained the first prize. After attending the university four years he obtained the degree of M. A. He soon after engaged as a private tutor; and within a year accepted the office of schoolmaster of Laurencekirk. When Ruddiman had spent three years and a half in this employment, Dr. Pitcairne invited him to Edinburgh, and promised him his patronage. When Ruddiman arrived in Edinburgh, the advocates' library, which had been founded eighteen years before by Sir George Mackenzie, attracted his attention; and he was soon after appointed assistant keeper, under Mr. Spottiswoode the librarian. His salary for executing this laborious office was £8 6s. 1d.; and he received a present of £5 Scots, £4 3s. 4d. sterling, as a mark of respect from the faculty! When Ruddiman's merit became better known his assistance was anxiously solicited by those engaged in literary publications. Freebairne, a respectable bookseller of that period, prevailed upon him to correct and prepare for the press Sir Robert Sibbald's *Introductio ad historiam rerum à Romanis gestarum in ea Borealis Britanniae parte quæ ultra murum Picticum est*. He received for his labor £3 sterling. At the request of Mr. Spottiswoode, librarian, for £5 sterling, he contributed his aid to the publication of Sir Robert Spottiswoode's *Præctiques of the Laws of Scotland*. In 1707 he commenced auctioneer, an employment not very suitable to the dignified character of a man of letters; and published an edition of *Voluseni de Animi Tranquillitate Dialogus*, to which he prefixed the life of Volusenus. In 1709 he published *Johnstoni Cantici Solomonis Paraphrasis Poetica*, and *Johnstoni Cantica* with notes, which he dedicated in Latin verse to Dr. Pitcairne. The philological talents of Ruddiman were next directed to a more important object. Freebairne proposed to publish a new edition of the Scottish translation of *Virgil's Æneid* by Gawin Douglas, bishop of Dunkeld. Ruddiman corrected the work and wrote the glossary. Ruddiman was now invited by the magistrates of Dundee to be

rector of the grammar school of that town; but the faculty of advocates, anxious to retain him, augmented his salary to £30 6s. 8d. sterling, and he declined the offer. In 1711 he assisted bishop Sage in publishing *Drummond of Hawthornden's Works*. In 1713 Dr. Pitcairne died, and Ruddiman conducted the sale of his library, which was disposed of to Peter the Great. In 1714 he published the *Rudiments of the Latin Tongue*, which soon superseded all other books on the subject, and is still taught in all the grammar-schools in Scotland. It has also been translated into other languages. He was next called upon to publish the works of Buchanan. The value of these he enhanced much by his elaborate preface, his *Tabula Regum Scotiae Chronologica*, and *Proprium Nominum Interpretatio*. Ruddiman also added a learned dissertation, entitled *De Metris Buchanauæis Libellus*, and subjoined annotations, critical and political, on the *History of Scotland*. He had now been so long accustomed to superintend the press that he was led to erect a printing-office himself. In 1715 he commenced printer, in partnership with his brother Walter, who had been brought up to the business. Some years after he was appointed printer to the university, with James Davidson, bookseller. In 1725 the first part of his *Grammaticæ Latinæ Institutiones* was published. The second part appeared in 1731. Ruddiman next engaged in the management of a newspaper, the *Caledonian Mercury*. Mr. Ruddiman, after the death of Mr. Spottiswoode, librarian, remained for some time in his former station; but was at length appointed keeper of the library, though without any increase of salary. In 1739 he published *Selectus Diplomatum et Numismatum Scotiae Thesaurus*. This work was projected and begun by Anderson (hence called *Anderson's Diplomata*), but was finished by Ruddiman. As Ruddiman had imbibed from his father his political prejudices in favor of the house of Stuart, he was not an unconcerned spectator of the civil commotions in 1745. He did not, however, take any active part in the Rebellion. He retired to the country; and was engaged in writing *Critical Observations on Burman's Commentaries on Lucan's Pharsalia*. During the last seventeen years of his life Ruddiman was almost incessantly engaged in controversy. He died in Edinburgh on the 12th January, 1757, in his eighty-third year. He was three times married, but left behind him only one daughter, Alison, who was married, in 1747, to James Stewart, esq.

RUD'DLE, *n. s.* Isl. *rudul*. Red earth.

Ruddle owes its color to an admixture of iron; and, as that is in greater or less proportion, it is of a greater or less specific gravity, consistence, or hardness. *Woodward.*

RUD'DOCK, *n. s.* Lat. *rubicula*. A kind of bird. The red-breast.

Of singing birds, they have linnets and *ruddocks*. *Carew.*

RUDDY, *adj.* Sax. *ruðu*. Approaching to redness; pale red.

The *ruddiness* upon her lip is wet;
You'll mar it, if you kiss it. *Shakspeare.*
We may see the old man in a morning,
Lusty as health, come *ruddy* to the field,

And there pursue the chase, as if he meant
To o'ertake time, and bring back youth again.

Otway.

New leaves on every bough were seen ;
Some ruddy coloured, some of lighter green.

Dryden.

A crown of ruddy gold enclosed her brow,
Plain without pomp.

Id.

Ceres, in her prime,
Seems fertile, and with ruddiest freight bedeckt.

Philips.

If the flesh lose its ruddiness, and look pale and
withered, you may suspect it corrupting.

Wiseman's Surgery.

If physic, or issues, will keep the complexion from
inclining to coarse, or rudely, she thinks them well
employed.

Law.

RUDE, *adj.* } Sax. *peðe*; Fr. *rude*;
RUDE'LY, *adv.* } Ital. *rudo*; Lat. *rudis*. Un-
RUDE'NESS, *n. s.* } taught; barbarous; rough;
harsh: the adverb and noun substantive corre-
sponding.

Though I be rude in speech, yet not in knowledge.

2 Corinthians.

I would know what ancient ground of authority he
hath for such a senseless fable; and if he have any
of the rude Irish books.

Spenser.

With his truncheon he so rudely stroke
Cynocles twice, that twice him forced his foot re-
voke.

Id.

Let be thy bitter scorn,

And leave the rudeness of that antique age
To them that lived therein in state forlorn.

Id.

Ruffian let go that rude uncivil touch;
Thou friend of an ill-fashion.

Shakespeare.

I that am not shaped for sportive tricks,
I that am rudely stamp'd, and want love's majesty
To strut before a wanton ambling nymph.

Id.

This rudeness is a sauce to his good wit,
Which gives men stomach to digest his words
With better appetite.

Id. Julius Cæsar.

Vane's bold answers, termed rude and ruffian-
like, furthered his condemnation.

Hayward.

What he did amiss was rather through rudeness
and want of judgment, than any malicious meaning.

Id.

In their so rude atode,
Not the poore swincherd would forget the gods.

Chapman.

He was yet but rude in the profession of arms,
though greedy of honour.

Wotton's Buckingham.

Nor is there any nation in the world, now ac-
counted civil, but, within the memory of books, were
utterly rude and barbarous.

Wilkins.

Clouds pushed with wings rude in their shock.

Milton.

Such tools as art yet rude hath formed.
Spring does to flowery meadows bring,
What the rude winter from them tore.

Id.

You can with single look inflame

Id.

The water appears white near the shore, and a
ship; because the rude agitation breaks it into foam.

Boyle.

It was the custom to worship rude and unpolished
stones.

Stillington.

To his country farm the fool confined;

Rude work well suited with a rustic mind.

Dryden.

My muse, though rudely, has resigned

Some faint resemblance of his godlike mind.

Id.

The public will in triumphs rudely share,

And kings the rudeness of their joy must bear.

Id.

It has been so usual to write prefaces, that a man
is thought rude to his reader who does not give him
some account beforehand.

Walsh.

You can hardly be too sparing of water to your
housed plants; the not observing of this destroys
more plants than all the rudenesses of the season.

Evelyn's Kalendar.

The rudeness, tyranny, the oppression and ingra-
titude of the late favorites towards their mistress,
were no longer to be born.

Swift.

The rudeness, ill-nature, or perverse behaviour of
any of his flock, used at first to betray him into im-
patience; but it now raises no other passion in him
than a desire of being upon his knees in prayer to
God for them.

Law.

To win no praise when well-wrought plans pre-
vail,

But to be rudely censured when they fail;

To doubt the love his favorites may pretend,

And in reality to find no friend.

Cowper.

RUDES'BY, *n. s.* From rude. An uncivil
turbulent fellow. A low and deservedly obso-
lete word.

I must be forced

To give my hand, opposed against my heart,
Unto a mad-brain rudesby, full of spleen.

Shakespeare.

Out of my sight, rudesby, be gone.

Id.

RU'DIMENT, *n. s.* } Fr. *rudiment*; Lat.
RU'DIMENTAL, *adj.* } *rudimentum*. The first
principles; first elements of a science; beginning
of any thing: the adjective corresponding.

Such as were trained up in the rudiments, and were
so made fit to be by baptism received into the church,
the fathers usually term hearers.

Hooker.

To learn the order of my fingering,
I must begin with rudiments of art.

Shakespeare.

Moss is but the rudiment of a plant, and the mould
of earth or bark.

Bacon's Natural History.

He was nurtured where he was born in his first
rudiments, till the years of ten, and then taught the
principles of music.

Wotton's Life of Villiers.

Thou soon shalt quit

Those rudiments, and see before thine eyes

The monarchies of the earth, their pomp, and state,
Sufficient introduction to inform

Thee, of thyself so apt, in regal arts.

Milton.

The rudiments of nature are very unlike the grosser
appearances.

Glauville's Scepis.

So looks our monarch on this early light,

The' essay and rudiments of great success,

Which all-maturing time must bring to light.

Dryden.

Could it be believed that a child should be forced
to learn the rudiments of a language which he is
never to use, and neglect the writing a good hand,
and casting accounts?

Locke.

The sappy boughs

Attire themselves with blossoms, sweet rudiments

Of future harvest.

Philips.

Shall that man pretend to religious attainments
who is defective and short in moral? which are but
the rudiments, the beginnings, and first draught of
religion; as religion is the perfection, refinement,
and sublimation of morality.

South.

God beholds the first imperfect rudiments of virtue
in the soul, and keeps a watchful eye over it, till it
has received every grace it is capable of.

Arlison's Spectator.

Your first rudimental essays in spectatorship were
made in my shop, where you often practised for hours

Spectator.

O come not ye near innocence and truth,
Ye worms that eat into the bud of youth!
Infectious as impure, your blighting power
Taints in its rudiments the promised flower.

Cowper.

Such as the halteres, or *rudiments* of wings, of some two-winged insects. *Darwin.*

RUE, *v. a.* } Sax. *reoprian*. To grieve
RUEFUL, *adj.* } for; regret; lament: the
RUEFULLY, *adv.* } derivatives all correspond-
RUEFULNESS, *n. s.* } ing.

Thou temptest me in vain;
To tempt the thing which daily yet I *rue*,
And the old cause of my continued pain,
With like attempts to like end to renew. *Spenser.*

You'll *rue* the time

That clogs me with this answer. *Shakespeare.*

When we have our armour buckled on,
The venom'd vengeance ride upon our swords,
Spur them to *rueful* work, rein them from ruth. *Id.*
Oh! treacherous was that breast to whom you
Didst trust our counsels, and we both may *rue*
Having his falsehood found too late, 'twas he
That made me cast you guilty, and you me. *Donne.*

Thy will

Chose freely what it now so justly *rues*. *Milton.*
Cocytus, named of lamentation loud,
Heard on the *rueful* stream. *Id. Paradise Lost.*
Why should an ape run away from a snail, and
very *ruefully* and frightfully look back, as being
afraid? *More.*

He sighed, and cast a *rueful* eye,
Our pity kindles, and our passions die. *Dryden.*

I gaed a waefu' gate yestreen,
A gate, I fear, I'll dearly *rue*;
I gat my death frae twa sweet een,
Twa lovely een o' bonnie blue. *Burns.*

RUE, *n. s.* Fr. *rue*; Lat. *ruta*. A herb, formerly called herb of grace, because holy water was sprinkled with it.

What savor is better,
For places infected, than wormwood and *rue*?
Tusser.

Here did she drop a tear; here, in this place,
I'll set a bank of *rue*, sour herb of grace;
Rue, even for Ruth, here shortly shall be seen,
In the remembrance of a weeping queen.

Shakespeare. Richard II.

The weasel, to encounter the serpent, arms herself
with eating of *rue*. *More.*

RUE, in botany. See RUTA.

RUE, Doc's. See SCROPHULARIA.

RUE (Charles de la), a French orator and poet, born in Paris in 1643. He was educated at the college of the Jesuits, where he became a professor of humanity and rhetoric. In 1667 he composed a Latin poem on the conquests of Louis XIV., which was so much esteemed by Corneille that he translated it into French, presented it to the king, and passed such high encomiums on the superior merit of the original that the author was received into the favor of that monarch. De la Rue became one of the most eminent preachers of his age. He died in Paris on the 27th of May, 1725, aged eighty-two. He published Panegyrics, Funeral Orations, and Sermons. His best sermon is entitled *Des Calamities Publiques*, and his most admired funeral oration was composed on the prince of Luxemburg. There are also tragedies of his writing, both in Latin and French, which were approved by Corneille. He was one of those learned men who published editions of the classics for the use of the Dauphin. Virgil, which fell to his share, was published with notes, and a life of the poet, in 1675, 4to.

RUELLE', *n. s.* Fr. *ruelle*. A circle; an assembly at a private house. Not used.

The poet, who flourished in the scene, is condemned in the *ruelle*. *Dryden's Preface to Æneis.*

RUELLIA, in botany, a genus of the angiospermia order, and didynamia class of plants; natural order fortieth, personata: CAL. quinquepartite: COR. sub-campanulated; the stamina approaching together in pairs: CAPS. springing asunder by means of its elastic segments. Species forty-six; shrubs of Asia, Africa, and America.

RUFF, *n. s.*

RUF'LE, *v. a., v. n. & n. s.* } Both from rough.
A puckered linen ornament for the neck or wrists: to wrinkle; disorder; roughen; discompose; to grow rough or turbulent: disturbance: ruff is also a river fish.

We'll revel it

With *ruffs*, and cuffs, and fardingals. *Shakespeare.*
Naughty lady,

These hairs, which thou dost ravish from my chin,
Will quicken and accuse thee: I'm your host;
With robbers' hands, my hospitable favours
You should not *ruffle* thus. *Id.*

Were I Brutus,

And Brutus Antony, there were an Antony
Would *ruffle* up your spirits, and put a tongue
In every wound of Cæsar, that should move
The stones of Rome to rise and mutiny. *Id.*

The night comes on, and the high winds

Do sorely *ruffle*; for many miles about
There's scarce a bush. *Id.*

A valiant son-in-law thou shalt enjoy;

One fit to bandy with thy lawless sons,
To *ruffle* in the commonwealth of Rome. *Id.*
They would *ruffle* with jurors, and inforce them to
find as they would direct. *Bacon's Henry VII.*

Like an uproar in the town,

Before them every thing went down,
Some tore a *ruff*, and some a gown. *Drayton.*
Sooner may a gulling weather spy,
By drawing forth heaven's scheme, tell certainly,
What fashioned hats, or *ruffs*, or suits next year,
Our giddy-headed antick youth will wear. *Donne.*

Within a thicket I reposed, when round

I *ruffed* up fallen leaves in heap, and found,
Let fall from heaven, a sleep interminate.

Chapman.

The knight found out

The' advantage of the ground, where best

He might the *ruffed* foe infest. *Hudibras.*

We are transported by passions, and our minds
ruffed by the disorders of the body; nor yet can we
tell how the soul should be affected by such kind of
agitations. *Glanville.*

A *ruff* or pope is much like the perch for shape,
and taken to be better; but will not grow bigger than
a gudgeon: he is an excellent fish, and of a pleasant
taste. *Walton.*

In changeable taffeties, differing colours emerge
and vanish upon the *ruffling* of the same piece of silk.

Boyle.

As she first began to rise,

She smoothed the *ruffed* seas, and cleared the skies.
Dryden.

The rising winds a *ruffling* gale afford. *Id.*

The fiery courser, when he hears from far
The sprightly trumpets and the shouts of war,
On his right shoulder his thick mane rec'd aed,
Ruffles at speed, and dances in the wind. *Id.*

How many princes that, in the *ruff* of all their

glory, have been taken down from the head of a conquering army to the wheel of the victor's chariot!

L'Estrange.

The ladies freed the neck from those yokes, those linen *ruffs*, in which the simplicity of their grandmothers had enclosed it.

Addison's Guardian.

A small skirt of fine *ruffled* linen, running along the upper part of the stays before, is called the modesty-piece.

Addison.

The tucker is a slip of fine linen, run in a small *ruffle* round the uppermost verge of the women's stays.

Id.

I reared this flower,

Soft on the paper *ruff* its leaves I spread. *Pope.*

Bear me, some god! oh quickly bear me hence
To wholesome solitude, the nurse of sense;
Where contemplation prunes her *ruffled* wings,
And the free soul looks down to pity kings. *Id.*

Conceive the mind's perception of some object, and the consequent *ruffle* or commotion of the blood.

Watts.

RUFFHEAD (Dr. Owen), was the son of a baker in Piccadilly, who educated him for the law. He entered in the Middle Temple; and, while he was waiting for opportunities to distinguish himself in his profession, he wrote a variety of pamphlets on temporary politics; and was afterwards distinguished by his accurate edition of *The Statutes at Large*, in 4to. He now obtained good business, though more as a chamber counsellor in framing bills for parliament than as a pleader; but his close application to study, with the variety of works he engaged in as an author, impaired his constitution. He died in 1769, aged forty-six. Some time before his death bishop Warburton engaged him to write his long promised *Life of Alexander Pope*; which, however, when executed, was very far from giving general satisfaction.

RUFFIAN, *n. s. & v. n.* Teut. *ruffian*; Ital. *ruffiano*; Fr. *ruffien*, a bawd. Perhaps, says Dr. Johnson, it may be best derived from the old Teutonic word which we now write rough. A brutal, boisterous fellow; a cut-throat; a robber: to play the ruffian.

Have you a *ruffian* that will swear? drink? dance? Revel the night? rob? murder? *Shakespeare.*

A fuller blast ne'er shook our battlements;

If it hath *ruffianed* so upon the sea,

What ribs of oak when mountains melt on them,

Can hold the mortise? *Id. Othello.*

Sir Ralph Vane's bold answers, termed rude and *ruffian-like*, falling into ears apt to take offence, furthered his condemnation. *Hayward.*

The boasted ancestors of these great men,

Whose virtues you admire, were all such *ruffians*;

This dread of nations, this almighty Rome,

That comprehends in her wide empire's bounds

All under heaven, was founded on a rape. *Addison's Cato.*

Experienced age

May timely intercept the *ruffian* rage;

Convene the tribes. *Pope's Odyssey.*

RUFINUS, a celebrated Italian, born about the middle of the fourth century at Concordia. He applied himself to the belles lettres, and studied eloquence at Aquileia. He then devoted himself to theology. St. Jerome happening to pass through Aquileia, Rufinus formed an intimate friendship with him; but was soon deprived of his company, as he continued his travels through France and Germany, and then

set out for the east. Rufinus resolved to follow him; embarked for Egypt; and, having visited the hermits in the deserts, repaired to Alexandria to hear the renowned Didymus. The Arians, who ruled in the reign of Valens, persecuted Rufinus: threw him into a dungeon, loaded him with chains, and, finally, banished him to the deserts of Palestine. From this exile he was relieved by St. Melania, who employed her wealth in ransoming those confessors who had been imprisoned or banished. He went next to Jerusalem; and having built a monastery on Mount Olivet he there assembled a great number of hermits. He converted many to the Christian faith, and persuaded above 400 hermits who had joined in the schism of Antioch to return to the Catholic church. Rufinus, having published a translation of the principles of Origen, was summoned to appear before pope Anastasius, at Rome. But he sent an apology for not appearing, with a vindication of his work, in which he attempted to prove that certain errors, of which Origen had been accused, were consistent with the opinions of the orthodox. St. Jerome attacked Rufinus's translation. Rufinus composed an elegant reply, in which he said that, being only the translator of Origen, he was not bound to sanction his errors. In 407 he returned to Rome; but in 408, that city being threatened by Alaric, he retired to Sicily, where he died in 410. His works are, 1. A Translation of Josephus. 2. A Translation of several works of Origen. 3. A Latin Version of Ten Discourses of Gregory Nazianzen, and Eight of Basil. 4. A Translation of the Ecclesiastical History of Eusebius, which engaged him nearly ten years. He made many additions to the work, and continued the history from the twentieth year of Constantine to the death of Theodosius the Great. 5. A Vindication of Origen. 6. Two Apologies, addressed to St. Jerome. 7. Commentaries on the prophets Hosea, Joel, and Amos. 8. Lives of the Hermits. 9. An Explanation of the Creed.

RUFUS, the surname of William II. king of England. See ENGLAND.

RUG, *n. s.* Swed. *rugget*, rough. A rough, nappy, woollen cloth: a rough dog.

Mongrels, spaniels, curs,

Shoughes, water *rugs*, and demy wolves are clefted All by the name of dogs. *Shakespeare. Macbeth.*

January must be expressed with a horrid and fearful aspect, clad in Irish *rug* or coarse freeze.

Peacham on Drawing.

The vungus resembleth a goat, but greater and more profitable; of the fleece whereof they make *rugs*, coverings, and stuffs. *Heylin.*

A *rug* was o'er his shoulders thrown;

A *rug*; for nightgown he had none. *Swift.*

RUGBY, a market town and parish of Warwickshire, eighty-five miles from London, is pleasantly situated near the Avon. Rugby is chiefly remarkable for its celebrated grammar-school, founded in 1567. The church is a commodious structure, and there are places of worship for dissenters. Market on Saturday; there are also some annual fairs.

RUGEN, an island of the Baltic, separated from Pomerania by the strait of Gellen. Its shape is so very irregular that no determinate

length or breadth would give any idea of its size, but it is calculated to contain 142,000 acres. It consists of the island Proper and three peninsulas, Jasmund on the north-east, Wittow on the north, and Monguth on the south-east. These different parts have several elevations, called mountains by the natives. The peninsula of Jasmund is terminated by a promontory of chalky cliffs, resembling the ruins of an immense building, interspersed with trees, and from which a torrent tumbles with impetuosity into the sea, above which the highest part of the promontory is 430 feet. The peninsula of Wittow also terminates in a similar but less elevated promontory, named Arcona. Chalk predominates in these two peninsulas; the general soil of the other parts is sand and clay mixed with shells; blocks of granite are also met with, and the north coast, in particular, is covered with pyrites, fragments of coral and jasper, and porphyry. It also affords china earth and clays for pottery.

The island is well watered by lakes and rivulets, and produces all kinds of grain and vegetables in the greatest abundance. It has good horses and excellent horned cattle, but the sheep are inferior. The wild animals are deer, hares, and foxes. The Rugeners breed great quantities of geese, which they smoke for exportation. In the middle of the peninsula of Jasmund, 400 feet above the sea, is a large lake, near which are several ancient mounds and ramparts of earth, supposed by the natives to be the burying places of the Huns, a number of earthen vases being found in the mounds. These mounds, of which there are others in various parts of the island, are called Hunengræbre, which properly signifies giant's grave: they are usually between forty and sixty feet long. Rudely cut large square stones are also met with in several parts of the island, which are supposed to have served as altars. The Rugeners are extremely industrious, the produce of the soil, their cattle, geese, and the herring fishery, supplying them with objects of foreign commerce, and which they export from some roads (the island having no port), and particularly from the village of Schaprode on the west. The annual export of corn from the island is 1600 lasts. The island has two towns and several villages. Bergen, the chief place, is near the north-east part of the island of Rugen Proper, and situated on an eminence that commands a view of the greater part of the island. It has from 1500 to 1600 inhabitants. Saagard, the second town, is on the interior of the peninsula of Jasmund, has 800 inhabitants, and near it is a mineral spring, resorted to both by the natives and strangers. The population of the island is 25,000.

Rugen belonged to Denmark from the twelfth to the fourteenth century, when it passed by convention to the dukes of Pomerania, whose house becoming extinct, Sweden got possession of its territories by the peace of Westphalia, in 1648, when Rugen was erected into a principality, to which was attached the office of grand huntsman of the empire. The language of the inhabitants is German, with a partial mixture of Swedish and Danish, and the manners and usages are the same as those of the north of

Germany. The peasants, however, were not emancipated from a state of vassalage till 1806. This island was acquired by Prussia, with the rest of Pomerania, in 1814. The neighbouring parts of the continent being a monotonous level, the island of Rugen is visited for its picturesque beauties by many Germans, one of whom has elegantly celebrated the promontory of Arcona, the rocks of Jasmund, and its sacred woods and tumuli. The coasts are celebrated in the annals of shipwreck, scarcely a year passing without several vessels being stranded on the shores of the peninsulas and on Hidensee. Several ancient regulations are still in force respecting shipwrecks. When a vessel makes the signal of distress, the inhabitants of the coast are bound to hasten to her assistance, and first to endeavour to save the crew. The persons who arrive first are entitled to a preference for salvage, but none is to enforce his services if the crew is alone able to save the cargo. The small islands dependent on Rugen are numerous; the principal is Hidensee on the west, whose inhabitants have little external communications; they speak a rude dialect of the high German, mixed with many Danish, Swedish, and obsolete Teutonic words. Their occupations are rearing a few cattle, whose dung is their principal fuel, the island having no wood; fishing for their subsistence, and collecting the amber which is occasionally driven on the shores. Unmantz island, also on the west, is next in consideration; and all the others, amounting to upwards of a dozen, are insignificant.

RUG'GED, *adj.* Swed. *rugget*. Rough; full of unevenness or asperity.

His hair is sticking;

His well-proportioned beard made rough and *rugged*
Like to the summer's corn by tempest lodged.

Shakspeare.

Now bind my brows with iron, and approach
The *rugged'st* hour that time and spite dare bring,
To frown upon the enraged Northumberland. *Id.*

Hardness and *ruggedness* is unpleasant to the touch.

Bacon.

Through forests wild,

To chase the lion, boar, or *rugged* bear. *Fairfax.*

Nature, like a weak and weary traveller,

Tired with a tedious and *rugged* way. *Denham.*

Fierce Talgol, gathering might,

With *rugged* truncheon charged the knight.

Hudibras.

Syrups immediately abate and demulce the hoarseness and violence of a cough, by mollifying the *ruggedness* of the intern tunick of the gullet.

Harvey.

A monosyllable line turns verse to prose, and even that prose is *rugged* and unharmonious.

Dryden.

This softness of the foot, which yields and fits itself to the *ruggedness* and unevenness of the roads, does render it less capable of being worn. *Ray.*

The greatest favours to such an one neither soften nor win upon him; neither melt nor endear him, but leave him as hard, *rugged*, and unconcerned as ever.

South.

Since the earth revolves not upon a material and *rugged*, but a geometrical plane, their proportions may be varied in innumerable degrees. *Bentley.*

RUGENDAS (George Philip), a celebrated painter, born at Augsburg, in 1666. He excelled

in painting sieges, battles, &c., though he painted with the left hand. He died 1742.

RUGGLES (George), M. A., a dramatic writer, who flourished in the reign of king James I. He wrote a humorous Latin play, entitled *Ignoramus*, which was acted before the king on the 8th of March, 1615, at the university of Cambridge.

RUG'IN, *n. s.* From *Rug.* A nappy cloth. The lips grew so painful that she could not endure the wiping the ichor from it with a soft *rugin* with her own hand. *Wiseman's Surgery.*

RUG'INE, *n. s.* Fr. *rugine.* A chirurgeon's rasp.

If new flesh should not generate, bore little orifices into the bone, or rasp it with the *rugine.* *Sharp.*

RUGOSE', *adj.* Lat. *rugosus.* Full of wrinkles.

It is a relaxation of the sphincter to such a degree that the internal *rugose* coat of the intestine turneth out, and beareth down. *Wiseman's Surgery.*

RU'IN, *n. s., v. a., & v. n.* Fr. *ruine*; Lat. *ruina.* The fall or destruction of edifices; the remains of such edifices; destruction; mischief: to ruin and ruienate (the latter disused) both mean to subvert; destroy: ruin, verb neuter, to fall into destruction: the other derivatives correspond in sense.

Though he his house of polished marble build, Yet shall it *ruin* like the moth's frail cell, Or sheds of reeds, which summer's heat reel. *Sandys.*

So shall the great revenger *ruinate* Him and his issue by a dreadful fate. *Id.*
He parted frowning from me, as if *ruin* Leant from his eyes. *Shakspeare. Henry VIII.*

Roman coins were overcovered in the ground, in the sudden *ruination* of towns by the Saxons. *Camden's Remains.*

The errors of young men are the *ruin* of business. *Bacon.*

The Romans came to pull down kingdoms; Philip and Nabis were already *ruinated*, and now was his turn to be assailed. *Id.*

It is less dangerous, when divers parts of a tower are decayed, and the foundation firm, than when the foundation is *ruinous.* *Hayward.*

What offence of such impietie Hath Priam or his sonnes done thee? that with so high a hate Thou shouldst thus ceaselessly desire to raze and *ruinate*

So well a builded town as Troy? *Chapman.*

This Ulysses, old Laertes' sonne, That dwells in Ithaca; and name hath wonne Of citie *ruiner.* *Id.*

If real unseiness may be admitted to be as deterring as imaginary ones, his own decree will retort the most *ruinously* on himself. *Decay of Piety.*

Haveok, and soil, and *ruin* are my gain. *Milton.*
Hell heard the unsufferable noise; hell saw Heaven *ruining* from heaven, and would have fled Afrighted, but strict fate had fixed too deep Her dark foundations, and too fast had bound. *Id.*

The birds, After a night of storm so *ruinous*, Cleared up their choicest notes in bush and spray, To gratulate the sweet return of morn. *Id.*

Loud rung the *ruin*, and, with boistrous fear, Strait revelled in the queen's amazed ear. *Beaumont.*

Those whom God to *ruin* has designed, He fits their fate, and first destroys their mind. *Dryden.*

A nation loving gold must rule this place, Our temples *ruin*, and our rites deface. *Id.*

If we are idle, and disturb the industrious in their business, we shall *ruin* the faster. *Locke.*

The Veian and the Gabian towers shall fall, And one promiscuous *ruin* cover all; Nor, after length of years, a stone betray

The place where once the very *ruins* lay. *Addison.*

She would *ruin* me in silks, were not the quantity that goes to a large pineushion sufficient to make her a gown and petticoat. *Id.*

Judah shall fall oppressed by grief and shame, And men shall from her *ruins* know her fame. *Prior.*

Those successes are more glorious which bring benefit to the world, than such *ruinous* ones as are dyed in human blood. *Granville's Preface.*

A confident dependence ill grounded creates such a negligence as will certainly *ruin* us in the end. *Wake.*

Such a fool was never found, Who pulled a palace to the ground, Only to have the *ruins* made Materials for a house decayed. *Swift.*

A stop might be put to that *ruinous* practice of gaming. *Id.*

RUINART (Thierry, or Theodoric), a learned French divine, born at Rheims in 1657. He became a Benedictine monk in 1674. Mabillon chose him for his assistant in his literary labors. In 1689 he published *Acta Primorum Martyrum Sincera*, &c., 4to. He also published several other learned works. When Mabillon died, in 1707, he was appointed to continue his work; but died in travelling to Champagne, in quest of new memoirs, in 1709.

RUIZIA, in botany, a genus of the polyandria order, and monadelphia class of plants; natural order thirty-seventh, columniferæ: CAL. double; external triphyllous; internal parted into five: cor. consisting of five petals, inclining to the right hand side, and adhering to the stamina, which are from thirty to forty. It has ten styli, and as many capsulæ. These are compressed and membranous. In each capsule are two seeds. There are four species, viz.—

1. *R. cordata.* 2. *R. laciniata.* 3. *R. lobata;* and 4. *R. palmata;* all of which are natives of Asia, and the Cape of Good Hope.

RULE, *n. s., v. a., &* Sax. *regole;* Teut. *Ruler,* *n. s.* [*v. n.*] and Belg. *regel;* Ital. *regola;* Span. *regla;* Lat. *regula.* Government; sway; empire; any thing by which other things are regulated; canon; precept; and, in an obsolete sense, regularity: as a verb active, to control; govern; manage; or settle: as a verb neuter to have power or command, taking over before the object: a ruler is one who possesses superior power or command: any instrument of rule or guidance.

A wise servant shall have *rule* over a son that causeth shame. *Proverbs xvii. 2.*

Judah yet *ruleth* with God, and is faithful with the saints. *Hosea xi. 12.*

He sought to take unto him the *ruling* of the affairs. *1 Muc.*

Soon rulers grow proud, and in their pride foolish.

Sidney.

I am ashamed, that women
Should seek for rule, supremacy, or sway,
When they are bound to serve, love, and obey.

Shakspeare.

Some say he's mad; others, that lesser hate him,
Do call it valiant fury; but, for certain,
He cannot buckle his distempered cause
Within the belt of rule.

Id.

It is a purposed thing
To curb the will of the nobility;
Suffer't, and live with such as cannot rule,
Nor ever will be ruled.

Id. Coriolanus.

God, by his eternal providence, has ordained
kings; and the law of nature, leaders and rulers
over others.

Raleigh.

Adam's sin did not deprive him of his rule, but
left the creatures to a reluctance.

Bacon.

How easily have these rulers discouraged a faint-
hearted people,

Bp. Hall's Contemplations.

If your influence be quite dammed up
With black usurping mists, some gentle taper,
Though a rush candle from the wicker hole
Of some clay habitation, visit us
With thy long levelled rule of streaming light.

Milton.

Thrice happy men! whom God hath thus ad-
vanced!

Created in his image, there to dwell,
And worship him; and in reward to rule

Over his works.

Milton's Paradise Lost.

He laid this rule before him, which proved of
great use; never to trouble himself with the fore-
sight of future events.

Fell.

We profess to have embraced a religion which
contains the most exact rules for the government of
our lives.

Tillotson.

Know'st with an equal hand to hold the scale;
See'st where the reasons pinch, and where they fail,
And where exceptions o'er the general rule prevail.

Dryden.

Rome! 'tis thine alone with awful sway,
To rule mankind, and make the world obey,
Disposing peace and war thy own majestic way.

Id.

There being no law of nature, nor positive law of
God, that determines which is the positive heir, the
right of succession, and consequently of bearing rule,
could not have been determined.

Locke.

We subdue and rule over all other creatures; and
use for our own behoof those qualities wherein they
excel.

Ray.

They know how to draw a straight line between
two points by the side of a ruler.

Moxon.

A judicious artist will use his eye, but he will
trust only to his rule.

South's Sermons.

This makes them apprehensive of every tendency
to endanger that form of rule established by the law
of their country.

Addison.

The pompous mansion was designed
To please the mighty rulers of mankind;
Inferior temples use on either hand.

Id.

Had he done it with the pope's license, his adver-
saries must have been silent; for that's a ruled case
with the schoolmen.

Atterbury.

Seven years the traitor rich Mycenæ swayed;
And his stern rule the groaning land obeyed.

Instruct me whence this uproar;
And wherefore Vanoe, the sworn friend to Rome,
Should spurn against our rule and stir

The tributary provinces to war? *A. Phillips's Briton.*

A rule that relates even to the smallest part of our
life is of great benefit to us, merely as it is a rule.

Law.

It was not easy to determine by what rule of dis-
tinction the words of this dictionary were to be
chosen.

Johnson. Plan of Dictionary.

B. I grant that men continuing what they are,
Fierce, avaricious, proud, there must be war;
And never meant the rule should be applied
To him that fights with justice on his side.

Cowper.

RULE, in a monastic sense, a system of laws
or regulations, whereby religious houses are go-
verned, and which the religious make a vow at
their entrance to observe. Such are the rules of
the Augustins, Benedictins, Carthusians, Fran-
ciscans, &c.

RULES OF COURT, in law, are certain orders
made from time to time in the courts of law,
which attorneys are bound to observe, in order
to avoid confusion; and both the plaintiff and
defendant are at their peril also bound to pay
obedience to rules made in court relating to the
cause depending between them. It is to be ob-
served that no court will make a rule for any
thing that may be done in the ordinary course;
and that if a rule be made, grounded upon an
affidavit, the other side may move the court against
it, in order to vacate the same, and thereupon
shall bring into court a copy of the affidavit and
rule. On the breach and contempt of a rule of
court an attachment lies; but it is not granted
for disobedience to a rule, when the party has not
been personally served; nor for disobeying a
rule made by a judge in his chamber, which is
not of force to ground a motion upon, unless the
same be entered.

RUM, *n.s.* From the liquor; often vulgarly
called kill-devil. A country parson. A cant
word, worthy the dean of St. Patrick's.

I'm grown a mere mopus; no company comes,
But a rabble of tenants and rusty dull rums.

Swift.

RUM, a species of vinous spirit, distilled
from sugar-canes. Rum, according to Dr. Shaw,
differs from simple sugar spirit, in that it con-
tains more of the natural flavor or essential oil
of the sugar-cane; a great deal of raw juice and
parts of the cane itself being fermented in the
liquor or solution of which the rum is prepared.
The unctuous or oily flavor of rum is often sup-
posed to proceed from the large quantity of fat
used in boiling the sugar; which fat, indeed, if
coarse, will usually give a stinking flavor to the
spirit in our distillations of the sugar liquor or
wash, from our refining sugar-houses; but this
is nothing of kin to the flavor of the rum, which
is really the effect of the natural flavor of the
cane. The method of making rum is this:—When
a sufficient stock of the materials is gathered to-
gether, they add water to them, and ferment
them in the common method, though the fer-
mentation is always carried on very slowly at
first; because, at the beginning of the season for
making rum in the islands, they want yeast or
some other ferment to make it work; but by de-
grees, after this, they procure a sufficient quan-
tity of the ferment, which rises up as a head to
the liquor in the operation; and thus they are
able afterwards to ferment and make their rum
with a great deal of expedition, and in large
quantities. When the wash is fully fermented,
or to a due degree of acidity, the distillation is
carried on in the common way, and the spirit is

made up proof: though sometimes it is raised to a much greater strength, nearly approaching to that of alcohol or spirit of wine; and it is then called double distilled rum. It might be easy to rectify the spirit, and bring it to much greater purity than we usually find it to be of; for it brings over in the distillation a very large quantity of the oil; and this often so disagreeable that the rum must be suffered to lie by a long time to mellow before it can be used; whereas, if well rectified, it would grow mellow much sooner, and would have a much less potent flavor. The best state to keep rum in, both for exportation and other uses, is that of alcohol or rectified spirit. In this form it might be transported in one-half the bulk it usually is, and might be let down to the common proof strength with water when necessary: for the common use, of making punch, it would likewise serve much better in the state of alcohol; as the taste would be cleaner, and the strength might always be regulated to a much greater exactness than in the ordinary way. The only use to which it would not so well serve, in this state, would be the common practice of adulteration among our distillers; for, when they want to mix a large portion of cheaper spirit with the rum, their business is to have it of the proof strength, and as full of the flavoring oil as they can, that may drown the flavor of the spirits they mix with it, and extend its own. If the business of rectifying rum were more nicely managed, it seems a very practicable scheme to throw out so much of the oil as to have it in the fine light state of a clear spirit, but lightly impregnated with it: in this case it would very nearly resemble arrack, as is proved by the mixing a very small quantity of it with a tasteless spirit, in which case the whole bears a very near resemblance to arrack in flavor. Rum is usually very much adulterated in Britain: some are so barefaced as to do it with malt spirit; but, when it is done with molasses spirit, the tastes of both are so nearly allied that it is not easily discovered. The best method of judging of it is by setting fire to a little of it; and, when it has burnt away all the inflammable part, examining the phlegm both by the taste and smell.

RUM, an island of Scotland, one of the Hebrides, seven miles west of Eigg, and included in the county of Argyll. It is about eight miles long, and nearly as broad, containing a surface of above 22,000 square acres of hilly, rocky, and, mountainous ground, chiefly fitted for pasture. Great numbers of small Shetland sheep are fed upon it, whose wool is remarkably fine. This island formerly abounded with wood and deer; but, the woods being destroyed, the deer have disappeared. The only harbour is Loch Serfort, which is spacious, and has good anchorage, from five to seven fathoms water.

RUM KEY, one of the Bahamas, situated about eight or nine leagues east from the north end of Long Island, and ten north from Great Harbour. It is under cultivation at present, and the acres of patented estates granted by the crown for this purpose, previously to May 1803, amounted to 11,738.

RUM RIVER, a river of North America, having

its source in Le Mille Lac, thirty-five miles south of Lower Red Cedar Lake, and falling into the Mississippi. It is about fifty yards wide at its mouth, and the small Indian canoes ascend quite to the lake.

RUMBLE, *v. n.* Teut. *rummelen*; Belg. *rommelen*. To make a hoarse low noise.

At the rushing of his chariots, and at the rumbling of his wheels, the fathers shall not look back to their children for feebleness. *Jeremiah* xlvii. 3.

The trembling streams, which wont in channels clear

To rumble gently down with murmur soft,
And were by them right tuneful taught to bear
A base's part amongst their consorts oft,
Now forced to overflow with brackish tears,
With troublous noise did dull their dainty ears.

Spenser.

Rumble thy belly full; spit fire, spout rain;
Nor rain wind thunder are my daughters;
I tax not you, you elements, with unkindness,

Shakespeare.

Our courtier thinks that he's preferred whom every man envies;

When love so rumbles in his pate, no sleep comes in his eyes.

Suckling.

Apollo starts, and all Parnassus shakes

At the rude rumbling Baraliopton makes.

Roscommon.

The fire she fanned, with greater fury burned

Rumbling within.

Dryden.

On a sudden there was heard a most dreadful rumbling noise within the entrails of the machine, after which the mountain burst.

Addison.

Several monarchs have acquainted me, how often they have been shook from their respective thrones by the rumbling of a wheel-barrow.

Spectator.

RUMELIA, or **ROMELIA**, a province of European Turkey, containing all the north parts of Greece and the capital of the Ottoman empire, Constantinople. It is one of the best peopled parts of Turkey: but so deficient are the Turks in statistical information, even in immediate reference to their own country, that the distribution of the inhabitants over its widely extended surface, and the comparative population of the different provinces; cannot be stated with precision. See **TURKEY**, for the best accounts we are able to obtain.

RUMEX, dock, in botany, a genus of the trigynia order, and hexandria class of plants; natural order twelfth, holoraceæ: CAL. triphyllous; there are three connivent petals, and one quetrous seed. There are thirty-seven species, of which the most remarkable are these:

1. *R. acutus*, or sharp pointed dock (the oxylathum of the shops). The roots of this are slender, and run straight down, sending out a few small fibres; the stalks rise about two feet high, garnished at bottom with leaves four inches long, and one and a half broad in the middle. They are rounded at their base, where they are slightly indented, but end in acute points. From the joints of the stalks come out alternately long foot-stalks, which sustain the spikes of flowers, which grow in small whorls round the stalks, at about an inch distant.

2. *R. alpinus*, monk's rhubarb, grows naturally on the Alps, but has long been cultivated in the gardens of this country. It has large

roots, which spread and multiply by their offsets: they are shorter and thicker than the patientia, are of a very dark brown on the outside, and yellow within. The leaves are of the round heart-shape, standing upon long foot-stalks. The stalks rise from two to three feet high; they are thick, and, have a few small roundish leaves on the lower part, but the upper part is closely garnished with spikes of white flowers standing erect close to the stalks. These appear in the end of May, and are succeeded by large triangular seeds, which ripen in August.

3. *R. aquaticus*, the water-dock, grows naturally in ponds, ditches, and standing waters, in many parts of Britain. It is supposed to be the herba Britannica of the ancients. It has large roots, which strike deep into the loose mud, sending out leaves about two feet long. The stalks rise five or six feet high, when the plants grow in water, but in dry land seldom more than three; these are garnished with narrow leaves among the spikes of flowers to the top. The flowers stand upon slender foot-stalks, which are reflexed; they are of an herbaceous color, appear in June, and the seeds ripen in autumn.

4. *R. patientia*, patience rhubarb, was formerly much more cultivated in the British gardens than at present. The root is large, and divides into many thick fibres; their outer cover is brown, but yellow within, with some reddish veins; the leaves are broad, long, and acute-pointed; their foot-stalks are of a reddish color; the stalks rise six or seven feet high, and divide towards the top into several erect branches, garnished with a few narrow leaves, terminating with loose spikes of large staminate flowers. These appear in June, and are succeeded by pretty large three-cornered seeds, whose coverings are entire, which ripen in autumn. These plants are but seldom cultivated; and so easily multiply by their numerous seeds that they soon become troublesome weeds where they once get an entrance.

RUMFORD. See **ROMFORD.**

RUMFORD, COUNT, so called from the title conferred on him by the elector of Bavaria, was born in Woburn, New England, in 1752. His name was Benjamin Thompson. He acquired, when young, a knowledge of natural philosophy, by the aid of the professor of that science in the college of Cambridge. He then employed himself as a teacher, till he was raised to independence by an advantageous marriage, when he became a major in the militia of his native province; and when the war took place between Great Britain and her colonies, his local knowledge enabled him to render services of importance to the English commanders. He went to England, and, as the reward of his services, obtained a situation in the foreign office, under lord George Germaine. Towards the close of the war, he was sent to New York, where he raised a regiment of dragoons, of which he was appointed colonel, and thus became entitled to half-pay. Returning to England in 1784, he received the honor of knighthood, and was for some time one of the under secretaries of state. Soon after, he went to the continent, and, through the recommendation of the prince of Deux-Ponts (afterwards king of Bavaria), entered into

the service of the reigning elector-palatine and duke of Bavaria, when he effected many important and useful reforms in both the civil and military departments of the state. Among these was a scheme for the suppression of mendicity, which he carried into execution at Munich and other parts of the Bavarian territories, providing labor for able-bodied paupers, and exciting a spirit of industry among the lower orders of the people in general. As the reward of his success in this and other undertakings, he received from the sovereign of Bavaria various orders of knighthood, was made a lieutenant-general, and created count Rumford. He left Bavaria in 1799, and returned to England, where he employed himself in making experiments on the nature and application of heat, and on other subjects of economical and philosophical research. He likewise suggested the plan, and assisted in the foundation, of the royal institution, which led to other establishments of a similar description. In 1802, he removed to Paris, where he took up his residence; and, his wife being dead, he married the widow of the celebrated Lavoisier; but the union proved unfortunate, and a separation ere long took place. Count Rumford then retired to a country house at Auteuil, about four miles from Paris, and there devoted his time to the embellishment of his domain, and to the cultivation of chemistry and experimental philosophy. Though he disliked both the character and politics of the French, he preferred the climate of their country to every other; and he therefore procured permission from the king of Bavaria to continue in France, and retain the pension of 1200 pounds a year, granted him by that prince. He died in August, 1814, leaving by his first wife a daughter, who resided at Boston, in the United States. Count Rumford was by no means a man of learning, his literary-acquirements being confined to the English, French and German languages; but he was familiar with the discoveries and improvements of modern science, and the industry and perseverance with which he pursued his inquiries enabled him to make considerable additions to our knowledge of chemistry and practical philosophy. Besides a great number of papers in various scientific journals, he published four volumes of Essays, experimental, political, economical, and philosophical.

RUMINANT, *adj.* } French *ruminer* ;
RUMINATE, *v. n. & v. a.* } Lat. *rumino*. Hav.
RUMINATION, *n. s.* } ing the power of
 chewing the cud: to chew the cud: hence to muse; reflect: as a verb active, to chew over again; muse on: the noun substantive corresponding.

The condemned English

Sit patiently, and inly *ruminate*

The morning's danger.

Shakspeare.

Mad with desire she *ruminates* her sin,
 And wishes all her wishes o'er again;
 Now she despairs, and now resolves to try,
 Would not, and would again, she knows not why.

Dryden.

Ruminant creatures have a power of directing this peristaltick motion upwards and downwards.

Ray.

RUMINANT, in natural history, is applied to an animal which chews over again what it has eaten before. Peyer, in a Treatise De Ruminantibus et Ruminacione, shows that there are some animals which really ruminate, as oxen, sheep, deer, goats, camels, hares, and squirrels; and that there are others which only appear to do so, as moles, crickets, beetles, crabs, mullets, &c. The latter class, he observes, have their stomachs composed of muscular fibres, by which the food is ground up and down as in those which really ruminate. Mr. Ray observes that ruminants are all four-footed, hairy, and viviparous; some with hollow and perpetual horns, others with deciduous ones.

RUMMAGE, *v. a.* Fr. *remuage*; Germ. *rummen*, to empty,—Skinner. To search; plunder; evacuate.

I have often rummaged for old books in Little-Britain and Duck-lane. *Swift.*

RUMMER, *n. s.* Sax. *rumor*; Dan. and Belg. *roemer*: A large glass; a drinking cup.

RUMNEY. See ROMNEY.

RUMOR, *n. s. & v. a.* } Fr. *rumeur*; Lat. }
 Ru'MORER. } *rumor*. Flying or popular report; fame: to report or bruit abroad: the noun substantive corresponding.

'Twas rumoured,

My father 'scaped from out the citadel. *Dryden.*

RUMP, *n. s.* Belg. *romp*; Teut. *rumpff*. The end of the back bone; used of beasts, and contemptuously of human beings.

He charged him first to bind,

Crowdero's hands on rump behind. *Hudibras.*

RUMPHIA, in botany, a genus of the monogynia order, and triandria class of plants: CAL. trifid; the petals three; the fruit a trilobed plum. Species one only, a tree of the East Indies.

RUMPLE, *v. a. & n. s.* Sax. *rumpele*; Belg. *rompelen*; Teut. *rumpael*. To crush or contract into wrinkles: the wrinkle or fold made.

RUMSEY. See ROMSEY.

RUN, *v. n., v. a. & n. s.* } Sax. *runnan*; Goth. }
 RUN'AGATE, *n. s.* } and Swed. *rinna*; }
 RUN'AWAY, } Teut. and Belg. *ren-* }
 RUN'NER. } *nen*. To move swiftly,

or at a quick pace; pass on the surface of the ground; have course; rush; emit; flow; stream; be liquid, fluid, or fusible; melt; vanish: hence to pass in thought or word; be mentioned cursorily; be known popularly; go on; proceed; tend; go on violently or irregularly; taking *after, away, away with, on, over, and out* before the object: as a verb active, to drive; force; stab; pierce; trace; melt; persecute; venture; venture against law; taking *down* before the object. This verb, as Johnson says, may be observed always to retain much of its primitive idea, and to imply progression, and, for the most part, progressive violence; a run is a course of motion; the act of running: flow; cadence; general reception; modish clamor: 'at the long run,' in fine, in the result: a runagate and runaway alike signify a fugitive; a rebel; apostate; one who flies from danger: runner, a racer or messenger; a shooting sprig; the moving stone of a mill.

Laban ran out unto the man unto the well.

Genesis xxiv. 29.

Joseph is a fruitful bough, whose branches run over the wall.

Id. xlix. 22.

The Lord sent thunder, and the fire ran along upon the ground.

Exodus ix. 25.

Whether his flesh run with his issue, or be stopped, it is his uncleanness.

Leviticus xiii. 3.

God bringeth the prisoners out of captivity; but letteth the *runagates* continue in scarceness.

Psalms lxxviii. 6.

Their feet run to evil, and make haste to shed blood.

Proverbs.

Running under the island Claudia, we had much work to come by the boat.

Acts xxvii. 16.

They run the ship aground.

Id. xxvii. 41.

Many have run out of their wits for women.

1 Esdras iv.

The wretch compell'd, a runagate became, And learned what ill a miser state doth breed.

Sidney.

If, through our too much security, the same should run on, soon might we feel our estate brought to those lamentable terms, whereof this hard and heavy sentence was by one of the ancients uttered.

Hooker.

This proud Turk offered scornfully to pass by without vailing, which the Venetian captains not enduring, set upon him with such fury that the Turks were enforced to run both their gallies on shore.

Knolles's History.

Neither was he ignorant what report run of himself, and how he had lost the hearts of his subjects.

Knolles.

My conscience will serve me to run from this Jew, my master.

Shakspeare. Merchant of Venice.

My status,

Like a fountain, with a hundred spouts,

Did run pure blood. *Id. Julius Cæsar.*

A hound runs counter, and yet draws dry food well.

Shakspeare.

If you suspend your indignation against my brother, till you can derive from him better testimony of his intent, you should run a certain course.

Id. King Lear.

If thou rememberest not the slightest folly

That ever love did make thee run into,

Thou hast not loved. *Id. As You Like It.*

Fore-spent with toil, as runners with a race, I lay me down a little while to breathe. *Shakspeare*

From growing riches with good cheer,

To running out by starving here. *Id.*

Poor Romeo is already dead, run through the ear with a love song. *Id. Romeo and Juliet.*

Thou runaway, thou coward, art thou fled?

Speak in some bush; where dost thou hide thy head?

Shakspeare.

As Cain, after he had slain Abel, had no certain abiding; so the Jews, after they had crucified the Son of God, became runagates.

Raleigh.

The difference between the valour of the Irish rebels and the Spaniards was, that the one ran away before they were charged, and the other straight after.

Bacon.

In some houses wainscots will sweat, so that they will almost run with water. *Id.*

The owner hath incurred the forfeiture of eight years' profits of his lands, before he cometh to the knowledge of the process that runneth against him.

Id.

A man's nature runs either to herbs or weeds; therefore let him seasonably water the one, and destroy the other. *Id.*

Running on with vain prolixity.

Drayton.

The priest and people *run* about,
And at the ports all thronging out,
As if their safety were to quit
Their mother. *Ben Jonson.*

He hath *run* out himself, and led forth
His desperate party with him; blown together
Aids of all kinds. *Id. Catiline.*

Discourses *ran* thus among the clearest observers:
it was said that the prince, without any imaginable
stain of his religion, had, by the sight of foreign
courts, much corroborated his judgment.
Wotton's Buckingham.

Thirst of fame makes them seek to climb to heaven;
it makes them not fear to *run* down headlong to hell.
Bp. Hall.

The rest dispersed *run*, some disguised,
To unknown coasts: some to the shores to fly.
Daniel.

Insectile animals, for want of blood, *run* all out
into legs. *Hammond.*

The king's ordinary style *runneth*, our sovereign
lord the king. *Saunderson.*

We have many evils to prevent, and much danger
to *run* through. *Taylor.*

The zeal of love *runs* out into suckers, like a fruit-
ful tree. *Id. Rule of Holy Living.*

Take here her reliques and her gods, to *run*
With them thy fate, with them new walls expect.
Denham.

He would himself be in the Highlands to receive
them, and *run* his fortune with them. *Clarendon.*

Rivers *run* potable gold. *Milton.*
Day yet wants much of his race to *run*. *Id.*

Hath publick faith, like a young heir,
For this taken up all sorts of ware,
And *run* into every tradesman's book,
Till both turned bankrupts? *Hudibras.*

They, when they're out of hopes of flying,
Will *run* away from death by dying. *Id.*

Customs *run* only upon our goods imported or ex-
ported, and that but once for all; whereas interest
runs as well upon our ships as goods, and must be
yearly paid. *Child.*

Hath falsehood proved at the long *run* more for
the advancement of his estate than truth? *Tillotson.*

The greatest vessel, when full, if you pour it
in still, it must *run* out some way, and the more it
runs out at one side, the less it *runs* out at the other.
Temple.

Since death's near, and *runs* with so much force,
We must meet first, and intercept his course.
Dryden.

He *ran* up the ridges of the rocks amain. *Id.*

Her form glides through me, and my heart gives
way;

This iron heart, which no impression took
From wars, melts down, and *runs*, if she but look.
Id.

Could you hear the annals of our fate;
Through such a train of woes if I should *run*,

The day would sooner than the tale be done. *Id.*
His grisly beard his pensive bosom sought,

And all on Lausus *ran* his restless thought. *Id.*
The estate *runs* out, and mortgages are made,
Their fortune ruined, and their fame betrayed. *Id.*

The common cry
Then *ran* you down for your rank loyalty. *Id.*

Here those that in the rapid course delight,
The rival *runners* without order stand. *Id.*

They *ran* down a stag, and the ass divided the prey
very honestly. *L'Estrange.*

Wickedness may prosper for a while, but, at the
long *run*, he that sets all knaves at work, will pay
them. *Id.*

The ass sets up a hideous bray, and fetcles a *run*
at them open mouth. *Id.*

If there remains an eternity to us, after the short
revolution of time we so swiftly *run* over here, 'tis
clear that all the happiness that can be imagined,
in this fleeting state, is not valuable in respect of the
future. *Locke.*

That punishment follows not in this life the breach
of this rule, and consequently has not the force of a
law, in countries where the generally allowed practice
runs counter to it, is evident. *Id.*

Thoughts will not be directed what objects to pur-
sue, but *run* away with a man in pursuit of those
ideas they have in view. *Id.*

Though putting the mind unprepared upon an un-
usual stress may discourage it, yet this must not *run*
it, by an overgreat shyness of difficulties, into a lazy
sauntering about ordinary things. *Id.*

I shall *run* the danger of being suspected to have
forgot what I am about. *Id.*

A talkative person *runs* himself upon great incon-
veniences, by blabbing out his own or others' secrets.
Ray.

If the richness of the ground cause turnips to *run*
to leaves, treading down the leaves will help their
rooting. *Mortimer.*

In every root there will be one *runner*, which hath
little buds on it, which may be cut into. *Id.*

The mill goes much heavier, by the stone they call
the *runner* being so large. *Id.*

Your iron must not burn in the fire; that is, *run*
or melt; for then it will be brittle. *Mozon.*

Study your race, or the soil of your family will
dwindle into cits, or *run* into wits. *Tatler.*

The world had not stood so long, but we can still
run it up to artless ages when mortals lived by plain
nature. *Burnet.*

It is no such hard matter to convince or *run* down
a drunkard, and to answer any pretences he can allege
for his sin. *South.*

See daisies open, rivers *run*. *Parnel.*

Some papers are written with regularity; others
run out into the wildness of essays. *Spectator.*

Hipparchus, going to marry, consulted Philander
upon the occasion; Philander represented his mis-
tress in such strong colours, that the next morning
he received a challenge, and before twelve he was *run*
through the body. *Id.*

The dire example *ran* through all the field,
Till heaps of brothers were by brothers killed.
Addison.

As wax dissolves, as ice begins to *run*,
And trickle into drops before the sun,
So melts the youth. *Id. Ovid.*

As fast as our time *runs*, we should be very glad
in most parts of our lives that it *ran* much faster.
Addison.

Virgil, in his first Georgick, has *run* into a set of
precepts foreign to his subject. *Id.*

This church is very rich in relics, which *run* up
as high as Daniel and Abraham. *Id.*

If we *run* over the other nations of Europe, we
shall only pass through so many different scenes of
poverty. *Id.*

Some English speakers *run* their hands into their
pockets, others look with great attention on a piece of
blank paper. *Id.*

It is impossible for detached papers to have a ge-
neral *run* of long continuance, if not diversified with
humour. *Id.*

The time of instance shall not commence or *run*
till after contestation of suit. *Ayliffe's Parergon.*

I would gladly understand the formation of a soul,
and *run* it up to its punctum saliens. *Colther.*

This *run* in the head of a late writer of natural

history, who is not wont to have the most lucky hits in the conduct of his thoughts. *Woodward.*

I have known several instances, where the lungs run through with a sword have been consolidated and healed. *Blackmore.*

It is a confederating with him, to whom the sacrifice is offered; for upon that the apostle's argument runs. *Atterbury.*

O that I could now prevail with any one to count up what he hath got by his most beloved sins, what a dreadful danger he runs. *Calamy.*

On all occasions, she runs out extravagantly in praise of Hocus. *Arbuthnot.*

The whole runs on short, like articles in an account, whereas, if the subject were fully explained, each of them might take up half a page. *Id. on Coins.*

Searching the ulcer with my probe, the sinus runs up above the orifice. *Wiseman's Surgery.*

Our king returned,
The muse ran mad to see her exil'd lord;
On the cracked stage the bedlam heroes roared. *Granville.*

Raw and injudicious writers propose one thing for their subject, and run off to another. *Felton.*

The purest gold must be run and washed. *Id.*

What is raised in the day, settles in the night, and its cold runs the thin juices into thick sizzly substances. *Cheyne.*

She saw with joy the line immortal run,
Each sire imprest, and glaring in his son. *Pope.*

Magnanimity may run up to profusion or extravagance. *Id.*

Run in trust, and pay for it out of your wages. *Swift.*

A horse-boy, being lighter than you, may be trusted to run races with less damage to the horses. *Id.*

When we desire any thing, our minds run wholly on the good circumstances of it; when 'tis obtained, our minds run wholly on the bad ones. *Id.*

To Tonson or Lintot his lodgings are better known than to the runners of the post-office. *Id. to Pope.*

Heavy impositions lessen the import, and are a strong temptation of running goods. *Swift.*

You cannot but have observed what a violent run there is among too many weak people against university education. *Id.*

He shows his judgment, in not letting his fancy run out into long descriptions. *Broome on Odyssey.*

He no where uses any softness, or any run of verses to please the ear. *Id.*

In the middle of a rainbow the colors are sufficiently distinguished; but near the borders they run into one another, so that you hardly know how to limit the colors. *Watts.*

Religion is run down by the licence of these times. *Berkeley.*

He will no more complain of the frowns of the world, or a small cure, or the want of a patron, than he will complain of the want of a laced coat, or a running-horse. *Law.*

Though Ramus runs in with the first reformers of learning in his opposition to Aristotle; yet he has given us a plausible system. *Baker.*

RUN, an extensive salt morass of Hindostan, which bounds the western frontier of Gujerat, and communicates with the gulf of Cutch, several hundred miles in length. It is supposed to have been formerly covered by the sea, but affords excellent pasture, and some fine horses. It belongs to several petty chiefs.

RUND'LET, *n. s.* Perhaps runlet or roundlet. A small barrel.

Set a rundlet of verjuice over against the sun in summer, to see whether it will sweeten. *Bacon.*

The angels did not fly, but mounted the ladder by degrees; we are to consider the several steps and rundles we are to ascend by. *Duppa.*

The third mechanical faculty, styled, axis in peritrochio, consists of an axis or cylinder, having a rundle about it, wherein are fastened divers spokes, by which the whole may be turned round.

Wilkins's Mathematical Magick.

RUNGS, in a ship, the same with the ground timbers; being the timbers which constitute her floor; and are bolted to the keel, whose ends are rung-heads.

RUNGPOOR, or Takhut Koondy, is an extensive district of Bengal, situated about 26° N. lat., bounded on the north by the Bootan mountains, and on the east by the Brahmappootra. It produces rice, sugar, silk, indigo, hemp, and tobacco. The glandular swellings of the throat are very prevalent here. Besides the Brahmappootra, it is watered by the Teestah and Durlah. Its chief towns are Rungpore, Guzgotta, and Mungulhaut. This district was taken possession of, and colonised by the Mahometans in the thirteenth century, and was always governed by a foujedar or military collector. Between 1730 and 1740 it was ruled by Sayed Ahmed, nephew of Aly Verdy Khan, who is accused of having been very oppressive, and compelling the rajahs of Dinagepore and Couch Behar to pay him tribute. It is now governed by a civil establishment of judge, collector, &c., and is subservient to the court of circuit and appeal of Dacca. Couch Behar is included in this collectorship.

RUNGPORE, the capital of the above district, is situated on the eastern bank of the Gog-got, is a very regular built town, and carries on a considerable trade with Bootan, Assam, and Calcutta. The judge and collector reside at Nuwalgunge, about a mile from the town. Long. 89° 5' E., lat. 25° 47' N.

RUNGPORE, an extensive fortress of Gergong, the ancient capital of Assam. It is situated on an island, and can only be approached by a bridge, which was built some centuries ago.

RUN'NEL, *n. s.* From run. A rivulet; a small brook.

With murmur loud, down from the mountain's side,

A little runnel tumbled neere the place. *Fairfax.*

RUNNER, in the sea language, a rope belonging to the garnet and the two bolt tackles. It is reeved in a single block joined to the end of a pendant; it has at one end a hook to hitch into any thing; and at the other a double block, into which is reeved the fall of the tackle, or the garnet, by which means it purchases more than the tackle would without it.

RUNNET, *n. s.* Sax. *gerunnen*, coagulated. A liquor made by steeping the stomach of a calf in hot water, and used to coagulate milk for curds and cheese. It is also written RENNET, which see.

The milk of the fig hath the quality of a runnet to gather cheese. *Bacon; Natural History.*

It coagulates the blood, as *runnet* turns milk.

More.

The milk in the stomach of calves, coagulated by the *runnet*, is rendered fluid by the gall in the duodenum.

Arbutnot.

RUNNET, or RENNET. See RENNET.

RUNNINGTON (Charles), serjeant-at-law, born in Hertfordshire in 1751. He was in 1768 placed with a special pleader, who employed him in a digest of the law of England. He was called to the bar in 1778, and in 1787 to the degree of serjeant. In 1815 he was appointed commissioner for the relief of insolvent debtors, which office he resigned in 1819, and died at Brighton, January 18, 1821. Mr. Runnington published Hale's History of the Common Law, 2 vols.; Gilbert's Law of Ejectments, 8vo.; Ruffhead's Statutes at Large, 4 vols. 4to.; History of the Legal Remedy by Ejectment, and the Resulting Action or Mesne Process, 8vo.

RUNNION, *n. s.* Fr. *rognant*, scrubbing. A paltry wretch.

You witch! you polecat! you *runnion*!

Shakspeare.

RUNNYMEAD, a celebrated mead, near Egham, in Surrey, where king John was compelled to sign Magna Charta, the great charter of English liberty, and the Charta de Foresta. See ENGLAND.

RUNT, *n. s.* *Runte*, in the Teutonic dialects, signifies a bull or cow, and is used in contempt by us for small cattle; as the Welsh term *kefyl*, a horse, is used for a worthless horse. Johnson.—Goth. *rian*, *raut*, Thomson. Any small animal; below the natural growth of the kind.

Reforming Tweed

Hath sent us *runts* even of her churches breed.

Cleveland.

Of tame pigeons, are coppers, carriers, and *runts*.

Walton.

This overgrown *runnt* has struck off his heels, lowered his foretop, and contracted his figure.

Addison.

RUPEE, a silver coin current in the East Indies, worth about 2s. 6d. See COINS.

RUPERT, prince palatine of the Rhine, and grandson of king James I. of England, was born in 1619. In 1642 he came over into England, and offered his services to king Charles I., his uncle, who gave him a command in his army. At Edgell he charged with incredible bravery, and made a great slaughter of the parliamentarians. In 1643 he seized the town of Cirencester; obliged the governor of Litchfield to surrender; and, having joined his brother prince Maurice, reduced Bristol in three days, and passed to the relief of Newark. In 1644 he marched to relieve York, where he gave the parliamentarians battle, and entirely defeated their right wing; but Cromwell charged the marquis of Newcastle with such an irresistible force that the royalists were at length entirely defeated. After this the prince retired to Bristol, which surrendered to Fairfax after a gallant resistance. The king was so enraged at the loss of this city, so contrary to his expectation, that he recalled all prince Rupert's commissions, and sent him a pass to go out of the kingdom. In 1648 he

went to France, was highly complimented by that court, and kindly received by king Charles II., who was there at the time. Afterward he was constituted admiral of the king's navy: infested the Dutch ships, many of which he took; and, having engaged with De Ruyter, obliged him to fly. He died in 1682, and was interred in king Henry VII.'s chapel, Westminster, with great magnificence. He seldom engaged but he gained the advantage, which he generally lost by pursuing it too far. He was better qualified to storm a citadel, or even to mount a breach, than patiently to sustain a siege. He took the hint of his discovery of mezzotinto, it is said, from a soldier scraping his rusty fusil. The first mezzotinto print ever published was the work of his hands, and may be seen in the first edition of Evelyn's *Sculptura*. The secret is said to have been soon after discovered by Sherwin, an engraver, who made use of a loaded file for laying the ground. The prince, upon seeing one of his prints, suspected that his servant had lent him his tool, which was a channeled roller; but, upon receiving full satisfaction to the contrary, he made him a present of it. The roller was afterwards laid aside; and an instrument with a crenelled edge, shaped like a shoemaker's cutting knife, was used instead of it. He also invented a metal called by his name, of which guns were cast.

RUPERT'S DROPS, a sort of glass drops with long and slender tails, which burst to pieces on the breaking off those tails in any part; invented by prince Rupert. Their explosion is attended in the dark with a flash of light; and, by being boiled in oil, the drops are deprived of their explosive quality.

RUPPIN, NEW, a town of Brandenburg, Prussia, in the government of Potsdam, on a lake of the same name. It is regularly built, the streets intersecting each other at right angles, and has a high church, high school, council-house, barracks, hospital, a workhouse, and a very large building for exercising the troops. It contains 4600 inhabitants, besides a garrison. The principal employments are weaving woollen, tanning, and making gloves. Old Ruppın is a small town a little farther to the north, with 1000 inhabitants. Thirty-five miles N. N. W. of Berlin.

RUPTION, *n. s.* } Lat. *ruptus*.

RUPTURE, *n. s., v. a., & v. n.* } Breach; solution of continuity: the act of breaking; hernia: to break; suffer disruption.

The egg,

Bursting with kindly *rupture*, forth disclosed
Their callow young.

Milton.

A lute string will bear a hundred weight without *rupture*, but at the same time cannot exert its elasticity.

Arbutnot.

The plenitude of vessels or plethora causes an extravasation of blood by *ruption* or apertion.

Wiseman.

The *rupture* of the groin or scrotum is the most common species of hernia.

Sharp's Surgery.

The vessels of the brain and membranes, if *ruptured*, absorb the extravasated blood.

Sharp.

When the parties, that divide the commonwealth, come to a *rupture*, it seems every man's duty to chase a side.

Swift.

RURAL, *adj.* Fr. *rural*; Lat. *rura, ruralis*. Country; existing in the country, not in cities; suiting or resembling the country.

Lady, reserved to do pastor company honour,
Joining your sweet voice to the *rural* musick of desert.
Sidney.

Here is a *rural* fellow,
That will not be denied your highness' presence;
He brings you figs.
Shakspeare. Cymbeline.

We turn
To where the silver Thames first *rural* grows.
Thomson.

The summit gained behold the proud alcove
That crowns it! yet not all its pride secures
The grand retreat from injuries impressed
By *rural* carvers, who with knives deface
The pannels, leaving an obscure rude name,
In characters uncouth, and spelled amiss. *Cowper.*

RURAL ARCHITECTURE. The application of such architectural science as was then in practice, to the accommodation of the agriculturist, must have taken place at a very early period of human history. We have already (see the article AGRICULTURE) endeavoured to trace the history of agricultural improvements generally—our business in this and the succeeding article is strictly practical; and will relate to the most expedient methods which have been suggested in modern times for farm buildings, and the general economy of a farm.

On the first of these subjects the reader may further consult the article FARM, where the laying out of farm lands, and the construction of the principal farm erections, are dwelt upon. In the present article, the smallest farm-house and farm-cottages will engage our attention; farm-stables, buildings for the accommodation of stock, poultry-houses, barns, straw-houses, cart-sheds, &c.

1. *Of the smaller farm-house and farm-cottages.*—The smallest farm-house will be that in which the farmer keeps no servant, and cultivates a few acres. Such a house should consist of an entry or porch at the end, and ranging by the side of a dairy and pantry; a kitchen of good size, say twelve to fifteen feet square; a parlour of equal size; a light closet off the parlour and at the opposite end of the house to the dairy; tool-house adjoining it; staircase and cellar under; poultry-house, and three bed-rooms up stairs. The ground plan of such a house is given in Plate RURAL ARCHITECTURE, fig. 1.

A farm-house forming a medium between this and that of what may be called a professional farmer is given in figs. 2 and 3. Here the farmer is supposed to keep a servant, who is domesticated with him, and the poultry and tool-house are in the yard. It contains an entrance and stair (*a*); kitchen, closet, and oven (*b*); back kitchen (*c*); dairy (*d*); parlour (*e*); bedroom (*f*); with three bedrooms and a garret up stairs, and a cellar under.

In larger farm-houses the servants' rooms have been recommended to be quite distinct from the house. Where farms are large, and consequently a great number of servants wanted, particularly where they are unmarried, suitable and convenient rooms for sleeping in, and, where they find their own provisions, for preparing and dressing them in, are not merely

requisite, but of considerable advantage to the farmer, as well as the men, as they save much time, which would otherwise be lost, in going to their meals; besides keeping them together in a sober, steady state, ready for their different employments. In this way, too, the servants are a great deal more comfortable, and live far more cheaply than when they go to the public-houses to eat their meals, as is much the case in the southern parts of the kingdom. But inconveniences of this kind are probably the best guarded against by having such servants, when it can be done, in the houses of the farmers, in which cases the eating-rooms for them should be so placed as that a facility may be given or overlooking them. But the rooms for lodging in should, at the same time, be quite detached and distinct, such persons being frequently careless and negligent of their candles and fires, besides being irregular in other parts of their conduct. In whatever situations such rooms may be erected, the ground-floors should be formed of stone, brick, or some other incombustible material, while the upper ones are laid with plaster, as in some of the midland districts.

Mr. J. Wood, of Bath, has suggested cottages of four classes, for laborers, having from one to four rooms each. See his Series of Plans for Cottages. They should be constructed, he says, on the following principles:

'The cottage should be dry and healthy; this is effected by keeping the floor sixteen or eighteen inches above the natural ground; by building it clear of banks, on an open spot of ground, that has a declivity or fall from the building; by having the rooms not less than eight feet high—a height that will keep them airy and healthy; and by avoiding having chambers in the roof.

'They should be warm, cheerful, and comfortable. In order to attain these points, the walls should be of a sufficient thickness (if of stone, not less than sixteen inches; if of brick, at least a brick and a half) to keep out the cold of the winter, or the excessive heat of the summer. The entrance should be screened, that the room, on opening the door, may not be exposed to the open air; the rooms should receive their light from the east or the south, or from any point betwixt the east and the south; for, if they receive their light from the north, they will be cold and cheerless; if from the west, they will be so heated by the summer's afternoon sun, as to become comfortless to the poor laborer, after a hard day's work; whereas, on the contrary receiving the light from the east or the south, they will be always warm and cheerful. So like the feelings of men in a higher sphere are those of the poor cottager, that if his habitation be warm, cheerful, and comfortable, he will return to it with gladness, and abide in it with pleasure.

'They should be rendered convenient, by having a porch or shed to screen the entrance, and to hold the laborer's tools; by having a shed to serve as a pantry, and store-place for fuel; by having a privy for cleanliness and decency's sake; by a proper disposition of the windows, doors, and chimneys; by having the stairs, where there is an upper floor, not less than three

Fig. 3.



Fig. 1.



Fig. 2.

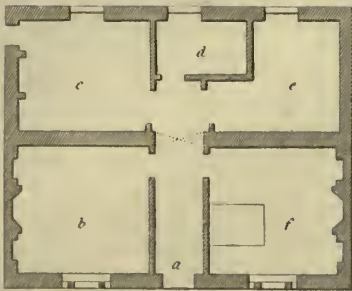
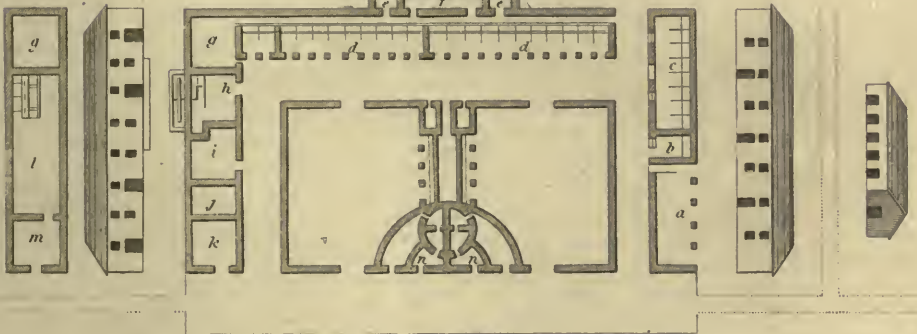
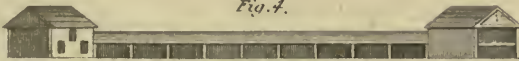


Fig. 4.



feet wide, the rise or height not more than eight inches, and the tread or breadth not less than nine inches; and, lastly, by proportioning the size of the cottage to the family that is to inhabit it; there should be one lodging-room for the parents, another for the female, and a third for the male children; it is melancholy, he says, to see a man and his wife, and sometimes half a dozen children, crowded together in the same room; nay, often in the same bed; the horror is still heightened, and the inconveniency increased, at the time the woman is in child-bed, or in case of illness, or of death; indeed, whilst the children are young, under nine years of age, there is not that offence to decency, if they sleep in the same room with their parents, or if the boys and girls sleep together, but after that age they should be kept apart.

‘Cottages should not be more than twelve feet wide in the clear, that being the greatest width that it would be prudent to venture the rafters of the roof, with the collar-pieces only, without danger of spreading the walls; and, by using collar-pieces, there can be fifteen inches in height of the roof thrown into the upper chambers, which will render dormer-windows useless.

Cottages should be always built in pairs, either at a little distance from one another, or close adjoining, so as to appear one building, that the inhabitants may be of assistance to each other, in case of sickness or any other accident.

‘For economy, cottages should be built strong, and with the best of materials, and these materials well put together; the mortar must be well tempered and mixed, and lime not spared: hollow walls bring on decay, and harbour vermin; and bad sappy timber soon reduces the cottage to a ruinous state. Although cottages need not be fine, yet they should be regular; regularity will render them ornaments to the country, instead of their being, as at present, disagreeable objects.

‘A piece of ground should be allotted to every cottage, proportionable to its size; the cottage should be built in the vicinity of a spring of water—a circumstance to be attended to; and, if there be no spring, let there be a well.’

‘Humanity,’ Beaton well observes, ‘shudders at the idea of an industrious laborer, with a wife, and perhaps five or six children, being obliged to live, or rather exist, in a wretched, damp, gloomy room, of ten or twelve feet square, and that room without a floor; but common decency must revolt at considering that over this wretched apartment there is only one chamber, to hold all the miserable beds of this miserable family. And yet instances of this kind, to our shame be it spoken, occur in every country village. How can we expect our laborers or their families to be healthy, or that their daughters, from whom we are to take our future female domestics, should be cleanly, modest, or even decent, in such wretched habitations?’

The last writer describes an economical staircase for cottages, in which every step is divided into two parts, half of it being just double the height of the other half. In ascending his stair the left foot is set on the left step, and the right

foot on the right, alternately to the top of the stair. It is clear, therefore, that as the steps for the right and for the left foot are in the same line, and although neither foot rises each time higher than seven inches and a half above the other, yet every time that one foot is moved, it rises fifteen inches higher than it was before. In a stair of this kind, if each tread or breadth for the foot be nine inches, and each rise of the one foot above the other seven inches and a half, as each foot rises the height of two steps, or fifteen inches, every time it is moved, it is plain that six steps of this kind will rise as high as twelve in the common way, and will require only one half the size of a hatch or opening in the floor above, that would be required for those twelve steps as usually constructed. This will be of advantage, where much is required to be made of little room, and will of course give more space to the chambers above.

In addition to our better farm-houses, given under the article FARM, we may here subjoin the elegant design of a very commodious and ample farmery given in the General Report of the Agricultural State of Scotland:—The dwelling-house contains two parlours, fig. 4 (*a, b*); kitchen (*c*); dairy (*d*); pantry (*e*); dining parlour (*f*); bed-rooms (*g, h*); cellars (*i*). The farmery consists of cart-sheds and granary over (*a*); riding horse stable (*b*); common stable (*c*); stalled cattle (*d*); places for tools and other articles of the cattle attendant (*e*); entrance from the spacious root or turnip shed (*f*); straw (*g*); threshing-machine and water-wheel (*h*); granaries and straw-lofts over (*g, l, m*); tools and sundries (*i*); smith’s shop (*j*), and carpenter (*k*).

2. *Of farm stables.*—Stables of all kinds should be situated on dry hard ground; and, if possible, on an ascent, for the sake of drainage: the windows or some openings should be made to the north or east, that the north winds may be let in in the summer to cool them, and the rising sun all the year round. Close window-shutters are always a valuable addition.

Farm stables should of course be contiguous to those other offices with which they are naturally connected. Beatson objects to the mode of making the racks and mangers of a farm stable run quite across the upper end of the stall. Servants, he observes, in order to save trouble, are very apt to stuff the racks full of hay, however large they may be, from which many bad consequences arise, and much hay is lost or destroyed by being pulled down and mixed with the litter. Besides, various bad effects result from the practice of suffering horses to be continually stuffing themselves with hay, as is well known to those who are accustomed to the proper management of such animals; as under their directions they are never permitted to have much hay in their racks at a time. Another disadvantage also attends this mode of fitting up stalls, especially for farm-houses, as it ought to be the object to preserve every thing; the hay-seeds are totally lost. And, by the practice of placing the racks with so much inclination outwards, the seeds are also very apt to fall into the horse’s ears and eyes, which often cause disagreeable effects. For these reasons it is said that racks should

have a perpendicular direction, not having a space of more than fourteen or sixteen inches from the wall; the bottom being sparred, in order to let the seeds fall down through below, whence they may be removed by a sort of sliding shutter. These advantages may also be neatly and conveniently obtained by leaving niches in the walls for the racks, on which plan the spars will be equal with the insides of the walls. Where the niches and racks are made in the middle of the stalls, two feet, or two feet and a half wide, will in most cases be sufficient; they should, however, be carried down low enough to admit of a small box or drawer being placed under them, for the reception of the hay-seeds. Racks of this sort may likewise be placed in the corners of the stalls, and be made in such a way as that one niche may serve two stalls. And they may be placed in the angles of the stalls without having any niche, and may be made of a semicircular form. But, in whatever way they are formed, there should constantly be a division betwixt them, which is probably best made of deal. Where the racks are put in the corners of the stalls, it may perhaps be more advantageous to have them straight than circular; but, in whichever way they are formed, the farmer should always have a hatch fixed for each stall, as by that means a great deal of time may be saved in feeding his horses. If the above methods be adopted, it must be unnecessary to make a manger of the same width with the stall; as a box or drawer, sixteen or eighteen inches long, and twelve or fourteen inches wide, will answer every intention perfectly well. But it should be so contrived that it may be readily taken out and cleaned whenever it is fouled, or becomes furred with dirt. With the fixed mangers this can never be done.

There is another method of making stalls, which, as being cheaper and more economical, deserves to be regarded by the farmer: on this plan the stable has neither racks nor mangers; the head of the stall is boarded about three feet from the ground, having a space of about two feet from the wall, in which the hay is to be deposited, the horse pulling his hay from below, instead of drawing it from above; which is not only more natural, but prevents the waste of hay, much of which drops down and is lost when the horse eats from a rack. But even in this construction it will be necessary to have the bottom sparred within eight or ten inches of the ground, and a box, hopper, or hay-manger and drawer, so contrived as to receive the seeds of the hay: where there are double stalls, the boxes may be divided in the middle. Single stalls, where they can be conveniently made, should however always be preferred, as being much more safe and convenient in different points of view, both for the horses and persons employed about them.

The paving of stables is a matter of great importance, though it has been hitherto but little attended to: and whether the stall should have a slight declivity, or be perfectly level, has not perhaps yet been so fully considered as it ought. It would appear to be more natural and easy for these animals to stand and rest themselves on a level surface, than on one that is sloping, as it is

evident that the tendons or sinews of the *pastern* joints must be kept more upon the stretch in the latter than in the former case. The main difficulty in regard to a level stall has been the conveying away of the moisture; but this may be effected by paving the stall perfectly level, and leaving a small drain in the middle, extending within two or three feet of the upper end; but which should not be more than seven or eight inches wide at top, forming an angle at the bottom. The depth at the end nearest the head of the stall need not be more than three or four inches, having as much slope as can be conveniently given it backwards, in order that it may carry the moisture off quickly to the main drain, into which all the stall-drains should have a fall, and the moisture be discharged. And the small stall-drains must also be covered with a piece of good strong oak-plank, in which a great number of holes are bored, and which must be so fastened as to admit of its being readily raised up and let down; as by this means the drains may be washed, and kept clean and sweet, as often as they are found to be furred up and obstructed. Besides these, main drains must be made at the end of the stalls, or in some other convenient situation, for carrying off the moisture into the general receptacle. Where they are placed at the bottoms of the stalls, they should not be closer to the stalls than two feet, in order that the stale of mares may get readily into them, which would not be the case if they were nearer, unless the pavement behind the stalls was made to decline a little towards them. These main drains need not be more than seven or eight inches wide at the top; but they should be covered with plank, in which holes are perforated for conveying away the moisture and wetness. But, with the view of saving the expense of making main drains within the stable, a shallow open drain may be made in the common way, with which the stall drains may communicate by means of very small grates at the ends. And it should be observed that the pavements or floors of the stalls should have a very slight declination from their sides towards the drains, to prevent moisture standing on them; an inch, or an inch and a half in the whole, will however be quite sufficient for these purposes.

In regard to the sizes of stalls, it may be noticed that they differ much according to circumstances; but four feet and a half in width are the least they should ever be made, and five feet are much better. The divisions between them should be high, so that strange horses may not see each other. But where stallions are kept, or young horses required to be left loose in a stall, they should be so enclosed as to be incapable of doing mischief. And, for these purposes, one or more stalls may be sparred to the top, or doors provided, which may be hung to the back posts of the stable. Where this last method is followed, the stalls serve extremely well for keeping different mares and their foals separate from others, as well as many other useful purposes in the business of horse-management with the farmer.

The writer of the *East Lothian Agricultural Survey* has remarked that sometimes stalls are

made double; and, as farm-horses generally work in pairs, each pair that work together have one of these double stalls; for horses are social animals, and it is said they feed better, and are more cheerful, when they live in society. But even in this case it is proper they should be fastened to the opposite sides of the stall, and that each horse should have his own rack and his own manger; for, although they may seem to have a very great attachment to each other, yet, if the dividing of their food is left to themselves, it is more than probable they will quarrel about it, and that the strongest horse will have the best share. But such farm-stables as contain only one row of stalls, with one horse in each stall, are, on the whole, the most useful and convenient; and if the stalls are sufficiently large, and the divisions between them raised sufficiently high, not with spars, as often is the case, but with boards closely joined, each horse will be allowed to eat his proportion of corn and hay equally, and allowed to take the necessary rest, without danger of being disturbed by a troublesome neighbour. The stable ought to be well paved, and of a sufficient breadth to leave a space of at least six or seven feet behind each horse, for a safe passage to the servants in hanging the harness upon the wall, &c. The pavement should decline very gradually from the horse's head backwards, towards the channel at his heels, which should also decline, in the same gradual manner, towards one end of the stable, where the urine may be received into a reservoir. Proper openings should also be left in the walls, for the purpose of ventilation; these should be fitted with sliding or flap-boards, opened in the morning, when the horses go out to work, and shut in the evening: in this way the stables will be properly ventilated; and every risk of cold, from having these openings uncovered during the night, be avoided.

In some cases the racks are fixed about fourteen inches from the walls, with but very little, if any, slant; having their bottom parts laid with small spars, or thin narrow pieces of wood, in an open manner, so that the hay seeds can fall down through between them, and be received in a drawer or box, made for the purpose below, where they are capable of being drawn or taken out at pleasure. A small box, or trough, is placed in some convenient part, answering the purpose of a manger, and which is sometimes made as a drawer, to put in and draw out as there may be occasion. The divisions of the stalls sometimes rise pretty high at the head parts in the ordinary way; and, at other times, in a curving manner at the upper ends, from the tail-posts to nearly the ceilings of the stables; and flap-doors, the height of the lower parts of the divisions, are sometimes fastened with hinges to posts, or the walls behind the horses. In other instances, the racks are placed in half-circular niches or recesses in the walls of the stables, opposite the divisions of the stalls; each niche being made to serve two stalls, by having a division in the middle betwixt them; and the racks themselves are sometimes made in half-circular forms. The same kind of half-circular racks are occasionally also put in the angles or corners of the stalls, without any niches; there

being divisions between them, so as that they may serve two stalls: but the racks, in these cases, have not always the half-circular form, but are made and fixed up in a straight manner. In all these cases, small drawers or boxes serve as mangers, for the horses to eat their provender out of, as may be necessary.

There is sometimes a hopper sort of contrivance in stables, where neither racks nor mangers are employed, which is broad at the top, and has about fourteen inches width in the bottom part; being sparred, in order that the seeds may drop through into a drawer made for the purpose below. In each corner there is a small box for corn, which serves as a manger; the hopper part being divided in the middle, so as to serve two stalls as hay-mangers. This is a neat and convenient mode in some cases, though rather expensive in making and putting up. There are still other contrivances in fitting up racks and stalls for preventing the unnecessary waste of labor and food, as well as to guard against the inconvenience of hay seeds falling into the eyes and ears of horses, which have been suggested by experienced farmers in other countries. In one set of contrivances, in this intention, the racks are placed in an upright manner, and the perpendiculars of them are made to fall on the inner edges of the troughs below, which have shelving leaves. In these cases, when the animals pull out the hay from the racks, the waste parts fall on the leaves, and thus slide down into the troughs, where they are secured from being spoiled by the breath of the horses; while the distance between the bottoms of the racks and the troughs is quite sufficient for the admission of the heads of the horses, so as that they may get at the hay which is dropped. The racks, in these cases, are two feet four inches in depth, and two feet at top from the edge parts of them; being planed within, in order that the hay may fall to the bottoms of the racks gradually, in proportion as it diminishes in quantity, and the animals be saved the trouble of a long reach, which they are often obliged to make in the stables which are fitted up in the old usual manner. The animals are fed and supplied with the fodder from the entry, which is six feet in width; the hay being dropped through a trap-door from the store-room above the stable. This plan is the suggestion of Mr. West, an intelligent North American farmer. Another plan of this kind has been proposed by Mr. Cooper of the United States, in which the racks of the stalls of the stables have a somewhat different construction and position, being formed with what are called flats, or thin strips or pieces of wood. In these the advantages are supposed to be very great, as the upright flats prevent the horses from wasting the hay, as well as from blowing upon it; and, besides, the animals are prevented from looking round, a habit to which horses are much accustomed when any person enters the stable; neither can they thrust their heads over the troughs, as the flats compel them to feed directly over them, without turning to either side. This mode of fitting up the stalls of stables may be found of much utility, in different situations and circumstances, in the management of both saddle, farm, and team-horses. At Holkham Mr

Coke has his mangers themselves, it is said by the writer of the corrected agricultural account of that district, plated with sheet-iron; and the front edges, which are rollers, covered with tin-plates. The bottoms of the stall divisions are made of slate. It has also been found that for stables, as well as all other offices, those locks which have copper wards are the best, as being much more durable than any other kinds.

Stable lofts for saddle as well as for farm, team, and carriage-horses, are also fitted up with different sorts of machinery and contrivances for preparing and reducing the different articles of food, which such horses are to have, into the most proper, and economical forms. These are, for the most part, straw or chaff-cutters, bean, barley, or malt-crackers, and oat-crushing and bruising machines. Such contrivances are often of very great utility and convenience, when properly managed, and put up in such stable buildings, or the rooms connected with them; and particularly where other more valuable uses are to be made of straw, pea and bean-haum, and other similar materials, than that of merely littering animals. They are likewise useful in saving much labor, by their being always ready and at hand.

A lofty stable is recommended by White (Treatise on Veter. Med. p. 1), fifteen or twenty but never less than twelve feet high, with an opening in the ceiling for ventilation. The floor he prefers is brick or limestone, inclining not more from the manger to the gutter than an inch in a yard. Some litter, he says, should always be allowed for a horse to stale upon, which should be swept away as often as is necessary. This, with a pail or two of water, thrown upon the floor, and swept off while the horse is at exercise, will keep the stable perfectly clean, and free from offensive smells. The depth of a stable should never be less than twenty feet, nor the height less than twelve. The width of a stall should not be less than six feet clear. But, when there is sufficient room, it is a much better plan to allow each horse a space of ten or twelve feet, where he may be loose and exercise himself a little. This will be an effectual means of avoiding swollen heels, and a great relief to horses that are worked hard. With respect to the rack and manger, White prefers the former on the ground rising three feet high, eighteen inches deep from front to back, and four feet long. The manger, eighteen inches deep, eighteen inches from front to back, and five feet in length. The rack he prefers being closed in front. 'Farm stables in Scotland,' says the editor of *The Farmer's Magazine*, 'are constructed in such a manner that all the horses stand in a line, with their heads towards the same side wall, instead of standing in two lines, fronting opposite walls, as formerly. Those lately erected are at least sixteen feet wide within walls, and sometimes eighteen, and the width of each stall upon the length of the stable is commonly five feet. To save a little room, stalls of nine feet are sometimes made to hold two horses, and, in that case, the manger and the width of the stall are divided into equal parts by what is called a half trevice, or a partition about half the depth of that which separates one

stall from another. By this contrivance, each horse indeed eats his food by himself; but the expense of single stalls is more than compensated by the greater ease, security, and comfort of the horses.

It may be of importance to observe here that stables should be better lighted than is commonly the case, as the blindness which is so frequently met with among horses has really been attributed, and not without probability, to an excess of the stimulus of light on their coming out of dark or dusky stables. Another practical hint.

Farm-stables are mostly, during the summer months, much exposed to the open air, the doors, wickets, or windows of them being very seldom shut, except at night, and then but rarely; the consequence is, that flies, which are attracted by the horse-dung and other similar matters, have very free access; but as it may commonly be observed that in such exposed stables, too, the spider is very prevalent, as is seen by the number of cobwebs, it may, of course, be unwise and improper to disturb or destroy them, and the insect should probably be cherished in such stables, as it may save the horse from the irritation of a variety of troublesome enemies and disturbers. It has been observed by Mr. Vancouver, that, except in Ireland, where the method of treating farm-horses is extremely bad indeed, those in the county of Devon have perhaps as hard measure dealt out to them as is any where to be met with in the United Kingdom. From the injudicious manner in which they receive the corn, that is occasionally given them, it is supposed, in some measure, a questionable point, whether it affords them a benefit, or, by diverting their appetites from the hay, pea-haum, or other sorts of straw, absolutely produces an injury and disadvantage, in consequence of the avidity with which they swallow the corn in an unmasticated or unchewed state. In order to rectify and remedy such improper modes of management in the stable, and other treatment of farm and heavy team-horses, a better and more desirable example, it is thought, can no where be found than that which may be drawn from the management of farm and waggon-horses in Pennsylvania and Maryland. These horses, it is said, perform journeys of 200 and 300 miles over the stupendous mountains of that country, with prodigious loads of wheat and flour from the interior, and wet and dry goods from the sea-ports to the different points of embarkation, at Fort Pitt, Red-stone, Charlestown, Wheeling, and other places on the Ohio River. Notwithstanding which, these waggon-horses, through the whole extent of that country, are, it is asserted, seldom seen in a less high condition than the brewers' and other large cart-horses in the metropolis of this country. The manner in which these American horses are sustained and supported, so as to perform these labors, is, it is said, generally by feeding them, in the stables and on the roads, with hay and straw chopped in short pieces about half an inch in length, with which is mixed about half a peck of rye, oat, and Indian corn-meal, to about two and a half or three pecks of hay chopped in the same manner. A feeding-trough, sufficiently large for four or

five horses to eat out of at the same time, is attached to each waggon, it is said, while on the road. The chaff is put into this trough, and, after being well mixed with the given quantity of meal, is moistened, and again well stirred together, until every shred or part of the hay or chopped straw is found to be covered, or, as it were, frosted over by the meal. The avidity with which the horses eat their meat, or provender, when thus prepared, may, it is supposed, be readily conceived. Their feed or meal being finished, they either pursue their journey or lie down to rest: but in either case, it is observed, not without being well dressed, and perfectly freed and cleansed from the muddy and other effects of their last labor. It is the pride and pleasure, it is said, of the carters, as well as of the waggon masters in that country, to see their horses in a condition above rather than under the labor which they have to perform; and in 100 miles travelling, from Baltimore to Philadelphia, it is confidently asserted that as many prime waggon-horses, and in as high condition, may be seen, as is the case in any direction for the same distance from the chief city of this country.

What are called *horse-hammels*, or sheds, with distinct yards, have been used as stables with great success in Berwickshire. Each shed holds two horses, with a nitch for harness; to each there is an open straw yard, of small size, with a water trough, and a gate large enough to admit a cart to take out the dung. Mr. Herriot, of Ladykirk, has long used these buildings, and has lost no horse by death for a number of years. His horses lie in these open hammels in winter; and it is remarked that in frosty weather, when snow is falling, and lying on the ground, the animals do not go under cover, but prefer to lie out, with their backs and sides covered with snow. It is known that, if a horse is kept out in winter, he will have no grease, nor swelled legs, and perhaps few other diseases. Every farmer who keeps a large stock of horses, occasionally loses one by inflammation, brought on by coughs and colds; but the horses of the farmer alluded to become aged, and he has not had occasion to purchase a young horse for several years.—(Husb. of Scot. i. 26.)

3. *Of buildings for live stock.*—The cattleshed is used both for lodging milch cows, and feeding cattle for the butcher. The principal requisites are, that they can be readily and well aired, and that they are so constructed as to save labor in feeding and cleaning the cattle. There are three ways in which cattle are placed in them; first, in a row towards one of the walls; secondly, in two rows, either fronting each other, with a passage between, or with the heads to each wall; or thirdly, across the building in successive rows. It is common to have an opening in the walls, through which turnips are supplied; but the plan most approved, and now becoming general, is to fix the stakes to which the cattle are tied about two and a half or three feet from the wall, which allows the cattle-man, without going among them, to fill the troughs successively from his wheelbarrow or basket. It is also an improvement to keep the cattle separate, by par-

titions at least between every two. The width of such stalls should not be less than seven feet and a half.

Cattle hammels have also been adopted in Berwickshire. Two cattle are here usually kept together, and go loose, in which way they are thought by some to thrive better than when tied to a stake, and, at the same time, feed more at their ease than when a number are kept together. All that is necessary is, to run partition walls across the sheds and yards of the farmers; or, if these are allotted to rearing stock, one side of the square, separated by a cart-way from the straw-yards, may be appropriated to the hammels. In the usual management of a row of hammels, in Berwickshire, there is one hammel at one end used as a temporary repository for roots and straw for the cattle; then each hammel consists of the open yard, and the covered part; the entrance door, of which there is only one to each hammel, is in the wall of the yard, and on each side of it are two troughs for food, and a crib for hay, straw, cut clover, or other herbage in summer.

Calf-pens, or stages, are common additions to cow-houses. The floor should be made of laths or spars about two inches broad, laid at the distance of an inch from each other, upon joists, so as to make it about ten or twelve inches from the ground: and the place below should be often cleaned. This is the principal suggestion we have to offer: but a slight partition of about three feet high between the calves, and a rack for the hay, are also improvements.

The calf-pens of Gloucestershire, as described by Marshal, are of admirable construction. A pen which holds seven, or occasionally eight calves, is of the following description:—The house or roomstead, in which it is placed, measures twelve feet by eight: four feet of its width are occupied by the stage, and one foot by a trough placed on its front; leaving three feet as a gangway, into the middle of which the door opens. The floor of the stage is formed of laths, about two inches square, lying lengthways of the stage, and one inch asunder. The front fence is of staves, an inch and a half diameter, nine inches from middle to middle, and three feet high: entered at the bottom into the front bearer of the floor (from which cross-joists pass into the back wall), and steadied at the top by a rail; which, as well as the bottom piece, is entered at each end into the end wall. The holes in the upper rail are wide enough to permit the staves to be lifted up and taken out, to give admission to the calves; one of which is fastened to every second stave, by means of two rings of iron joined by a swivel; one ring playing upon the stave, the other receiving a broad leathern collar, buckled round the neck of the calf. The trough is for barley-meal, chalk, &c., and to rest the pails on. Two calves drink out of one pail, putting their heads through between the staves. The height of the floor of the stage from the floor of the room is about one foot. It is thought to be wrong to hang it higher, lest, by the wind drawing under it, the calves should be too cold in severe weather: this, however, might be easily prevented by litter, or long strawy dung thrust

beneath it. It is observable that these stages are fit only for calves which are fed with the pail, not for calves which suck the cow.

Hog-styes are generally constructed with shed-roofs, about six or seven feet wide, with height in proportion. They should be at no great distance from the house; while the less they are connected with the other buildings of the farm the better. Swine, it seems, though generally considered as filthy animals, delight in a clean and comfortable place to lie down in, and cleanliness has a better effect upon no animal, with respect to their thriving. In order to keep them dry, a sufficient slope must be given, not only to the inside places but to the outside areas; these should be a little elevated, having steps up from them of at least five or six inches. Hog-styes should likewise have divisions, to keep the different sorts of swine separate; nor should many ever be allowed to be together.

According to Marshal, every pig should have a rubbing-post. 'Having occasion,' says he, 'to shift two hogs out of a sty without one, into another with a post, accidentally put up to support the roof, he had a full opportunity of observing its use. The animals, when they went in, were dirty, with broken ragged coats, and with dull heavy countenances. In a few days they cleared away their coats, cleaned their skins, and became sleek haired.' They enjoyed their post like a placeman. It was discernible in their looks, in their liveliness, and apparent contentment. It is not probable that any animal should thrive while afflicted with pain or uneasiness. Graziers suffer single trees to grow, or put up dead posts in the ground, for their cattle to rub themselves against; yet it is probable that a rubbing-post has never been placed intentionally in a sty; though, perhaps, for a two-fold reason, rubbing is most requisite to swine.

'In farm-yards,' says Mr. Loudon, 'the piggeries and poultry-houses generally occupy the south side of the area, in low buildings, which may be overlooked from the farmer's dwelling-house. They should open behind into the straw-yards or dunghheap, to allow the hogs and fowls to pick up the corn left on the straw, or what turnips, clover, or other matters are refused by the cattle. They should have openings outwards, that the pigs may be let out to range round the farmery at convenient times; and that the poultry may have ingress and egress from that side as well as the other.'

Beaton (Com. to the Board of Ag. vol. 1.), is of opinion that *poultry* ought always to be confined, but not in a close, dark, diminutive hovel, as is often the case; they should have a spacious airy place, properly constructed for them. Some people are of opinion that each sort should be kept by itself. This, however, is not, he thinks, necessary; for all sorts may be kept promiscuously together, provided they have a place sufficiently large to accommodate them, and proper divisions and nests for each kind to retire to separately, which they will naturally do. Wakefield of Liverpool keeps a large stock of turkeys, geese, hens, and ducks, all in the same place: and, although young turkeys are in general considered so difficult to bring up, he rears

great numbers in this manner every season. For this purpose he has about three-quarters, or nearly a whole acre, enclosed with a fence only six or seven feet high, formed of slabs set on end, or any thinnings of fir or other trees split and put close together. They are fastened by a rail near the top and another near the bottom, and are pointed sharp, which he supposes prevents the poultry flying over, for they never attempt it, although so low. Within this fence are places done up slightly (but well secured from wet) for each sort of poultry; also a pond or stream of water running through it. These poultry are fed almost entirely with potatoes boiled in steam, and thrive astonishingly well. The quantity of dung that is made in this poultry place is also an object worth attention: and, when it is cleaned out, a thin paring of the surface is at the same time taken off, which makes a valuable compost, for the purpose of manure. But, for keeping poultry upon a small scale, it is only necessary to have a small shed or slight building, formed in some warm sheltered sunny situation: if near the kitchen or other place where a constant fire is kept so much the better, with proper divisions, boxes, baskets, or other contrivances for the different sorts of birds, and for their laying and incubation.

'The poultry-house should,' says Young, 'contain an apartment for the general stock to roost in, another for setting, a third for fattening, and a fourth for food. If the scale is large, there should be a fifth for plucking and keeping feathers. If a woman is kept purposely to attend them, she should have her cottage contiguous, that the smoke of her chimney may play into the roosting and setting rooms: poultry never thriving so well as in warmth and smoke; an observation as old as Columella, and strongly confirmed by the quantity bred in the smoky cabins of Ireland. For setting both turkeys and hens, nests should be made in lockers, that have lids with hinges, to confine them, if necessary, or two or three will, he says, in sitting, crowd into the same nest. All must have access to a gravelled yard, and to grass for range, and the building should be near the farm-yard, and have clear water near. Great attention should be paid to cleanliness and whitewashing, not for appearance, but to destroy vermin.' Loudon recommends for the interior a sloping stage of spars for the poultry to sit on; 'beneath this stage may be two ranges of boxes for nests; the roof should have a ceiling to keep the whole warm in winter, and the door should be nearly as high as the ceiling for ventilation, and should have a small opening with a shutter at bottom, which, where there is no danger from dogs or foxes, may be left open at all times to admit of the poultry going in and out. The spars on which the clawed birds are to roost should not be round and smooth, but roundish and roughish, like the branch of a tree. The floor must be dry, and kept clean for the web-footed kinds.'

4. *Of the barn.*—Barns should, if possible, be placed on a declivity; and, according to the recommendation of the Annals of Agriculture, vol. xvi., should be underpinned with brick or stone; the roof covered with reed or straw; and

Fig. 1. DOUBLE BARN.



Fig. 2. OPEN BARN.

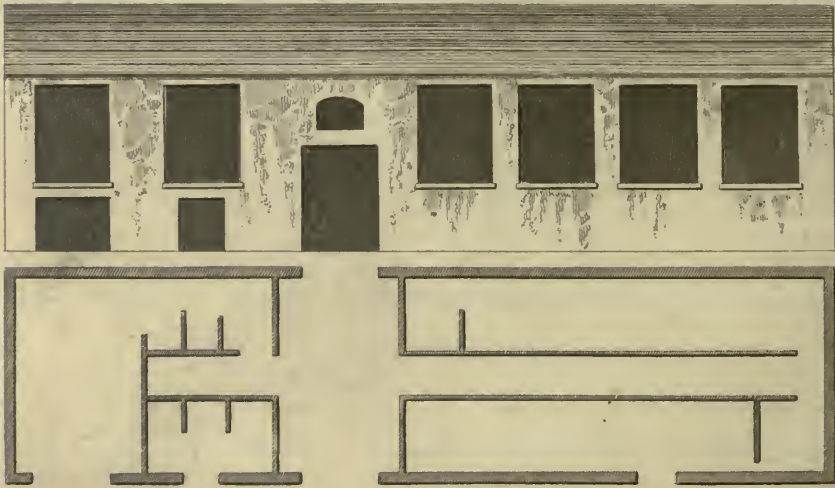


Fig. 3.



Fig. 4.

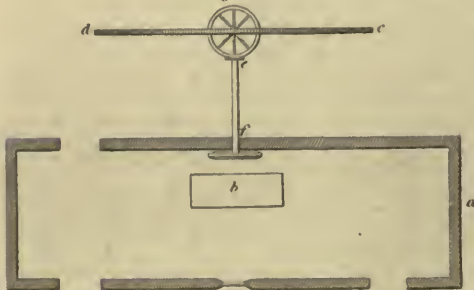
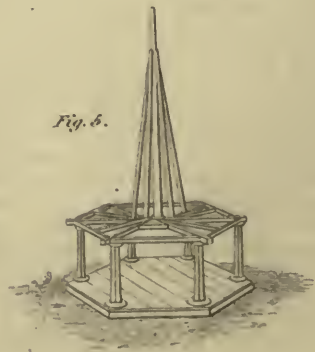


Fig. 5.



those of adjoining stables (if any), with slate. At each end of the barn, and over the back door, small doors, four feet square, should be fixed at the height of twelve feet from the ground; the two former for putting corn in at the ends, and the latter for filling the middle of the barn after the bays are full. All the bays should have a floor of clay or marle, and the threshing-floor be made with hard bricks, which will be sufficient for all sorts of grain except wheat and rye; and for threshing them it will be good economy to have planks of oak or red deal well fitted together and numbered, to be laid down occasionally and confined by a frame. A barn built on such a plan would hold a great deal of corn and be filled most conveniently; and, if the stacks were built at each end, they might be taken in without any carting. If more buildings are requisite, two may be added on the back side like the stables in front; otherwise if doors are made under the eaves on the back side, as directed at the ends, and stacks be placed opposite to them just far enough to avoid the eaves dropping, by placing a waggon between them and the barn by way of a stage, these stacks may be taken in without carting; which method spares a great waste of corn and much trouble. The spars of the roofs of the stables rest upon the upper cills of the sides of the barn, and the outside wall of the stables is eight feet high; the barn supplying the highest side and one end of each stable, and the stables in return are buttresses to the barn. An elevated barn floor is both more durable, and less subject to vermin; the grain is kept more dry and sweet than on a ground floor, and cannot slip through it without discovery. When built in this way, barns should have a southern aspect, the arches of the cattle-stalls facing that way. Mr. Marshal, in the Rural Economy of Yorkshire, speaks highly of the advantages of barns formed in this manner.

In respect to the size of barns, the same writer observes, that in Gloucestershire fifty-two by twenty feet in the clear, and from sixteen to twenty feet in height to the plate, is considered a good barn; these dimensions admitting of four bays of ten feet each, with a floor in the middle. The advantage of having buildings of this sort conveniently situated is extremely great, both in regard to the feeding of cattle, sheep, and hogs, and likewise in the economy of labor and fodder.

The invention of threshing machines has of late varied the construction of barns, as where they are made use of they should be contrived chiefly with a view to the working of them: the machines being built in the centre, with the grain stacks adjoining them, in such a manner as that they may be supplied without the assistance of carts or horses. The barns in these cases need not be so large, but they should have granaries provided in them, which may probably be most conveniently placed over the floors. In most old barns, threshing machines may be erected without much inconvenience; and notwithstanding the superiority of stacking grain in the open air has been fully shown, and of course the necessity of large barns in a great measure done away, many agricultors are still attached to the method of housing corn in the straw.

The hay-barn is generally constructed of timber, and open on the south or east, or even on all sides. In Middlesex there are many hay-barns capable of holding from thirty to fifty, and some even 100, loads of hay. They are found to be extremely useful and convenient during a catching and unsettled hay-harvest.

In plate II. RURAL ARCHITECTURE, are, fig. 1. The ground plan and elevation of a common double barn: a wall is often run across the middle of these buildings; they are chiefly serviceable for the storage of grain in the straw, and are of all sizes. Fig. 2 is the ground plan and elevation of an open improved barn, the threshing floor of which is towards one end; and on each side of it below are divisions for different purposes: the corn being kept above in the straw. This is an economical and airy building. Figs. 3 and 4 are a front and end elevation of a barn adapted for a two-horse threshing-machine. This barn is fifty-five feet in length within the walls, and seventeen in width. The walls are ten feet high, which admits of a granary or room thirty feet long above the machine, shown by the dotted line in the elevation. The floor is not continued the whole length, in order that there may be more room left in the other end for unthreshed grain, which is introduced at the end. The machine within the barn is only ten feet by seven, including the distance from the wall. The horse beam is twenty-four feet in length, and gives motion by a laying shaft through the wall, to the machine within. There is no shed or cover over the horse-path. The expense of a machine on this plan will be from thirty to forty pounds.

In barns with threshing machines, the granary is almost always formed immediately above the floor on which the machine works; which admits raising the corn to it directly from the ground-floor, either by the threshing-mill itself, or a common windlass. When it is to be taken out, and carried to market, it may be lowered down upon carts with the utmost facility. See our article GRANARY.

5. *Of the straw-house, cart-sheds, root-house, &c.*—The straw-house, when distinct from the barn, should be placed at the end of the cattle-sheds, opposite to the root-house, and have a cart entrance, and an inner door communicating with the feeder's walk. Straw, however, is often stacked, in preference to placing it in a straw-house, especially where farming is on any considerable scale.

Cart-sheds or lodges, for the protection of carts or waggons, should be near the farm-yard. Carts, &c., under proper shelter when out of use, will last much longer than if left exposed in the yard to the weather; for, as they are thus sometimes wet, and sometimes dry, they soon rot. The dust and nastiness should also be constantly washed off before they are laid up in these places.

The root house is intended for depositing or stowing away potatoes, turnips, cabbages, and other roots or tops for the winter feed of cattle. It should join the cattle-sheds, and communicate with them by an inner door that opens into the feeder's walk, and the entrance door ought to admit a loaded cart. These houses seem very

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necessary wherever there is a number of cows or other cattle supported on roots or cabbages, as without them it would not only be inconvenient, but in many cases in severe weather impossible to provide for them the daily supply. Cabbages should not, however, be kept long indoors, as they are very liable to the putrid fermentation. The master should be careful that the yard-man constantly keeps such places perfectly clean and sweet, in order that the roots may contract no bad smell, as cattle are in many cases extremely nice in this respect.

The appendages to farm buildings are the dung-yards, pits, and reservoirs, the rick-yard, straw-yard, poultry-yard, drying-yard, garden, orchard, and cottage-yards. These vary so much, according to situation and other circumstances, that a description of them seems needless in this place.

Corn-stands have been of late considered requisite fixtures of a stack-yard; their basements are of timber, masonry, or iron, on which the stack is built, and their object is to keep the lower part dry, and exclude vermin. A usual mode of constructing them is to place a stout

frame of timber on upright stones, two feet high, and having projecting caps of flat stones. They are also constructed wholly of stone, of circular or polygonal walls. In both modes, pieces of timber are placed as a frame in the middle to support the grain upon, and generally a cone of spars in the centre, to form a funnel. Cast iron stands (plate II. fig. 5) for stacks, on pillars about three feet high, and weighing half a hundred weight each, have been introduced with success in some parts of the country. They are made both with and without hollow cones or triangles. A stack requires seven pillars, besides the framing, which may either be made of poles or young trees. In the wet climate of Clackmannanshire wheat has been stacked in five days, beans in eight, and barley and oats in ten days and sometimes earlier. No vermin can find their way into these stacks to consume the grain, and the straw is better preserved. The cone or triangle keeps up a circulation of air, and prevents heating, or other damage. (Gen. Rep. of Scotland, Vol. IV., Appendix p. 379). Hay-stands have been constructed in a similar manner.

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RURAL ECONOMY. Under this general head we have determined to include those practical parts of the science of agriculture which could not conveniently be embraced in the general article of that name. See **AGRICULTURE**.

In that article we have taken a general view of soils, and of the ordinary principles of ameliorating them by manuring, ploughing, rotation of crops, &c. In the present paper we propose to treat, 1. Of the arable system. 2. Of grazing. 3. Of the modern convertible system. 4. Of the cultivation of plants that are articles of commerce. 5. Of the management of live stock. 6. Of implements of husbandry. The dairy, and its general economy, have engaged our attention under the article **DAIRY**.

PART I.

OF THE ARABLE SYSTEM.

In laying out a farm on the arable system, it has been recommended that attention be paid to that course of crops, which the quality of the soil may point out; and that, upon all farms not below a medium size, there should be twice the number of enclosures that there are divisions or breaks in the course. Thus, if a six years' rotation be thought most profitable, there should be twelve enclosures, two of which are always under the same crop. One advantage in this arrangement is, that it tends greatly to equalize labor, and, with a little attention, may contribute much to equalize the produce. On large farms, where all the land under turnips and clover, for instance, is near the extremity of the grounds, or at a considerable distance from the buildings, supposed to be set down near the centre, it is clear that the labor of supplying the house and straw-yard stock with these crops, as well as the carriage of the manure to the field, is much greater than if

the fields were so arranged as that the half of each of these crops had been near the offices. But, by means of two fields for each crop in the rotation, it is quite easy to connect together one field near the houses with another at a distance; thus having a supply at hand for the home stock, while the distant crops may be consumed on the ground. The same equalisation of labor should be observed in the cultivation of the corn fields, and in harvesting the crops. By this kind of arrangement a field of inferior soil may be so connected with one that is naturally rich, that the former may be gradually brought up in produce towards the level of the latter, without any injury. For instance, a field under turnips may be so fertile that it would be destructive to the succeeding corn crop to consume the whole or the greater part on the ground; while another may be naturally so poor, or so deficient in fertility, as to make it inexpedient to spare any part for consumption elsewhere. By connecting these two under the same crop,—by carrying from the one what turnips are wanted for the feeding-houses and straw-yards, and eating the whole crop of the other on the ground with sheep, the ensuing crop of corn will not be so luxuriant on the former as to be unproductive, while the latter will seldom fail to yield abundantly.

1. In *preparing land* for cropping, the first thing that occurs is to consider the obstructions to regular ploughing. The most formidable of these are stones lying above or below the surface. Stones above the surface may be avoided by the ploughman, though not without loss of ground; but stones below the surface are commonly not discovered till the plough is shattered to pieces, and perhaps a day's work lost. The clearing land of stones is therefore necessary to prevent mischief. And, to encourage the operation, it is

attended with much actual profit. In the first place, the stones are often useful for fences: when large they must be blown, and are commonly proper for building. And, as the blowing with gunpowder does not exceed a halfpenny for each inch that is bored, these stones come generally cheaper than to dig as many out of the quarry. 2dly, As the soil round a large stone is commonly the best in the field, it is purchased at a low rate by taking out the stone; for not only is the ground lost that is occupied by a large stone, but also a considerable space round it, to which the plough has not access without danger. A third advantage is that the plowing can be carried on with much expedition, when there is no apprehension of stones: in stony land, the plough must proceed so slow, as not to perform half of its work.

But to clear land of stones is an undertaking too expensive for a tenant who has not a long lease. As it is, however, so important both to him and to his landlord, it appears reasonable that the expense should be divided, where the lease does not exceed nineteen or twenty years. It falls naturally upon the landlord to be at the expense of raising the stones, and upon the tenant to carry them off the field.

Another obstruction is wet ground. Water may improve gravelly or sandy soils; but it sours a clay soil, or renders it unfit for vegetation, and converts low ground into a morass. A great deal has been written upon different methods of draining land. See DRAINING. One way of draining without expense, when land is to be enclosed with hedge and ditch, is to direct the ditches so as to carry off the water. But this method is not always practicable. If the run of water be considerable, it will destroy the ditches, and lay open the fences, especially where the soil is loose or sandy. If ditches will not answer, hollow drains are sometimes made, and sometimes open drains, made so deep as to command the water. The former is filled up with loose stones, with brush-wood, or with any other porous matter that permits the water to pass. The latter is left open. To make the former effectual, the ground must have such a slope as to give the water a brisk course. To attempt to execute them in a level ground is an error; the passages are soon stopped up with sand and sediment, and the work is rendered useless. This inconvenience takes not place in open drains; but they are subject to other inconveniences. They are always filling up, and make a yearly reparation necessary; and they obstruct both ploughing and pasturing.

The following open drain is one of the best. It is made with the plough, cleaving the space intended for the drain over and over, till the furrow be made of a sufficient depth for carrying off the water. The slope on either side may, by repeated ploughings, be made so gentle as to give no obstruction either to the plough or to the harrow. There is no occasion for a spade, unless to smooth the sides, and to remove accidental obstructions in the bottom. This drain is executed at much less expense than either of the former; and it is perpetual, as it can never be obstructed. In level ground indeed grass may

grow at the bottom, but to clear off the grass once in four or five years will restore it to its original perfection. A hollow drain may be proper between the spring-head and the main drain, where the distance is not great; but in every other case the drain recommended is the best. Where a level field is infested with water from higher ground, the water ought to be intercepted by a ditch carried along the foot of the high ground, and terminating in some capital drain. The only way to clear a field of water that is hollow in the middle is to carry it off by some drain still lower.

A clay soil of any thickness is often pestered with rain, which settles on the surface. The only remedy is high narrow ridges, well rounded. And, to clear the furrows, the furrow of the foot-ridge ought to be considerably lower, to carry off the water cleverly. It cannot be made too low, as nothing hurts clay soil more than the stagnation of water on it. Some gravelly soils have a clay bottom; which is a substantial benefit to a field when in grass, as it remains moister. But, when in tillage, ridges are necessary to prevent rain from settling at the bottom; and this is the only case where a gravelly soil ought to be ridged. Clay soils that have little or no level have sometimes a gravelly bottom. For discharging the water, the best method is, at the end of every ridge to pierce down to the gravel, which will absorb the water. But if the furrow of the foot-ridge be low enough to receive all the water it will be more expeditious to make a few holes in that furrow. In some cases, a field may be drained, by filling up the hollows with earth from higher ground. But, as this method is expensive, it will only be taken where no other method answers. Where a field happens to be partly wet, partly dry, there ought to be a separation by a middle ridge, if it can be done conveniently; and the dry part may be ploughed while the other is drying.

Some of the low parts of Scotland are of a brick clay soil, extremely wet in winter. This in a good measure may be prevented by proper enclosing, as there is scarcely a field but can be drained into lower ground. But as this would lessen the quantity of rain in a dry climate, such as is all the east side of Britain, it may admit of some doubt whether the remedy would not be as bad as the disease.

To improve a moor, let it be opened in winter when it is wet; and when the plough cannot be employed at any other work. In spring, after frost is over, a slight harrowing will fill up the seams with mould, to keep out the air, and rot the sod. In that state let it lie the following summer and winter, which will rot the sod more than if laid open to the air by ploughing. Next April, let it be cross-ploughed, broken, and harrowed, till it be sufficiently pulverised. Let the manure laid upon it, whether lime or dung, be intimately mixed with the soil by repeated harrowings. This will make a fine bed for turnip seed if sown broad-cast. But, if drills be intended, the method must be followed that is directed afterward in treating of the culture of turnip. A successful turnip-crop, fed on the ground by sheep, is a fine preparation for laying

down a field with grass seeds. It is an improvement upon this method, to take two or three successive crops of turnip, which will require no dung for the second and following crops. This will thicken the soil, and enrich it greatly.

The best way of improving *swampy ground*, after draining, is paring and burning. But where the ground is dry, and the soil so thin as that the surface cannot be pared, the way of bringing it into tilth from the state of nature is to plough it with a feathered sock, laying the grassy surface under. After the new surface is mellowed with frost, fill up all the seams by harrowing cross the field, which by excluding the air will effectually rot the sod. In this state let it lie summer and winter. In the beginning of May after, a cross-ploughing will reduce all to small square pieces, which must be pulverised with the brake, and made ready for a May or June crop. If these square pieces be allowed to lie long in the sap without breaking, they will become tough and not be easily reduced.

On the subject of *paring and burning*, Mr. Loudon says, 'The season for this operation is April, May, and June: the particular period must, however, always depend much on the state of the weather and the nature of the crop. When the east winds prevail, in February and March, this sort of business may sometimes be carried on. But for accomplishing the work with the greatest despatch, and also with the least trouble and expense, a dry season is obviously the best. The prudent cultivator should not embark in the undertaking unless there be a reasonable probability of his accomplishing it while the weather keeps dry and favorable. The latter end of May or the beginning of June, when the hurry of the spring-seed time is over, in the more northern districts, when a number of hands can be most easily procured may, upon the whole, be considered as the best and most convenient season; as at this period the green vegetable products are in their most succulent state, and of course may probably afford more saline matter; but in the more southern counties either a much earlier season must be taken, or the interval between the hay season and the harvest time must be fixed upon, the latter of which is, on the principle just stated, evidently the best, where the extent of ground to be burnt is not too large. In other seasons it would frequently be impossible to procure a sufficient number of hands for performing the business. In bringing waste lands into cultivation, where an extensive tract of ground is to undergo this process, the autumn may, in many cases, afford a convenient opportunity for the operation. A good deal depends on the crops that are to be sown after paring and burning. When rape or turnips are to be cultivated, the end of May, or the beginning of June, will be the most proper time: but, if barley or oats are to be sown, the paring and burning must be completed as early in spring as the nature of the season will admit; and, when lands are pared and burned as a preparation for a crop of wheat, July, or even the beginning of August, may, in favorable seasons, answer; but it is better to have the ground ready sooner if possible. In respect to the depth to which lands of different

qualities may be pared with the most advantage, it is obvious that, as it can hardly be proper to pare light, thin-stapled soils, to the same depths as those of the more deep and heavy kinds, it should, in some degree, be regulated by their particular nature, and their differences in respect to heaviness. Boys, who is in the habit of breaking up thin chalky soils, and such as have been in tillage, in this way, observes that in Kent, where the method of paring most in use is with down-shares or breast ploughs, they take off turfs as thick as the nature of the soil will admit, from half an inch to two inches; the thicker the better, provided there be a sufficient portion of vegetable matter contained within them to make them burn well. The most usual depths of paring are from about one to three inches.

'In regard to burning, when the season is not very wet, the turfs will commonly be sufficiently dried in about a fortnight or three weeks, even without being turned; but in rainy weather they require a longer time, and must be turned more than once to prevent their striking out roots and shoots, which might hinder them from burning. As soon as the turfs have fully undergone the process of burning, and are reduced to the state of ashes and a powdery earthy matter, the whole should, as soon as possible, be spread out over the land in as regular and equal a manner as the nature of the work will admit of; for, without great attention in this respect, great inequality in the crops may take place; besides the soil will be made lighter in some places than in others, which may be disadvantageous in the same way. The spreading, where it can by any means be accomplished, should always be performed before any rain falls; as, where this point is not attended to, a great loss may be sustained by the saline matters being carried down in a state of solution, and their beneficial effects in a great measure lost before the crops are in a condition to receive them. In order to secure the full influence of the ashes, the land is frequently slightly ploughed over immediately after the ashes are spread out. And it is stated by Donaldson that those who are more than ordinarily attentive in this respect only rib or slob furrow the field, so that the ashes after burning may be covered up with the greater expedition and despatch. By this mode they cannot probably, however, be so equally mixed with the soil as by that of ploughing the whole field with a very slight furrow, so as just to cover them. The expense of the operation of paring and burning will vary according to the nature and situation of the land, the method in which it is performed, and the customs of the district in regard to the price of labor. On the thin sort of chalky soils it is stated by Boys that the expense for paring at a moderate thickness, where the land is not very flinty, is about equal to four or five ploughings.'

We add, this writer's remarks on the operation of *drying and burning clay for manure*, as it is in several respects similar to that of paring and burning. 'The practice of burning clay,' he observes, 'has at various times been pursued with energy and success, and at other times has fallen

into neglect. The oldest book in which it is mentioned is probably *The Country Gentleman's Companion*, by Stephen Switzer, gardener, London, 1732. In that work it is stated that the earl of Halifax was the inventor of this useful improvement; and that it was much practised in Sussex. There are engravings of two kilns for burning clay, one adopted in England, and the other in Scotland; where it is said to have been ascertained that lands, reduced by tillage to poverty, would produce an excellent crop of turnips if the ground were ploughed two or three times, and clay ashes spread over it. In the same work there are several letters, written in the years 1730 and 1731, stating that the plan of burning clay had answered in several parts of England; and accounts were received from Scotland that, upon experiment, it had answered better than either lime or dung, but was found too expensive. The practice is described at length in *Ellis's Practical Farmer*, or *Hertfordshire Husbandman*, 1732. In 1786 James Arbutnot, of Peterhead, tried several successful experiments with burning clay, and various others have since been made in different parts of the empire. In 1814 the practice was revived and written on by Craig, of Callay, near Dumfries, and soon after by general Beatson, near Tunbridge; by Curwen, Burrows, and several correspondents of agricultural journals. In Ireland, it would appear, the practice prevails in several places, and Craig says he adopted it from seeing its effects there. The result of the whole is, that the benefits of this mode of manuring have been greatly exaggerated; though they certainly appear to be considerable on clayey soils. Aiton (*Farmer's Magazine*, vol. xxii. p. 423) compares this rage for burning clay, which existed in 1815, to the florin mania of a few years prior date. In 1822 he found few of the advocates for these improvements disposed to say much on the subject, and saw very few clay kilns smoking. 'To give my ultimatum upon this subject,' he says, 'I regret that the discoverers of florin grass, and of the effects of burnt clay, have so far overrated their value. Both are useful and proper to be attended to;—the grass to be raised on patches of marshy ground, and used as green food to cattle in winter; and the burnt earth as a corrector of the mechanical arrangement of a stubborn clay soil; and I have no doubt but if they had been only recommended for those valuable purposes they would have been brought into more general use than they yet are or will be, till the prejudice against them, arising from the disappointment of expectations raised high by too flattering descriptions, are removed.' He thus describes the action of burnt clay:— 'It must be obvious to every person that has paid attention to the subject, that when clay, or other earth, is burnt into ashes like brick-dust, it will not (unless acids be applied to it) return again to its former state of clay, but will remain in the granulated state of ashes or friable mould, to which it was reduced by the operation of burning. An admixture of this kind, with a strong adhesive clay, must evidently operate as a powerful manure by changing the mechanical arrangement of the latter and rendering it more

friable; giving greater facility to the protection of redundant moisture, and to the spreading of the roots of vegetables in quest of food. The application of as much water, sand, or any similar substance, would have exactly the same effect in opening, and keeping open, the pores of an adhesive clay soil, and converting it into the quality loam. Besides this, which would be a permanent improvement upon the staple or texture of every clay soil, burnt clay or torrefied earth may sometimes acquire, in this operation, a small quantity of soot or carbonic matter, that may, in favorable circumstances, operate for one season as a manure, or as a stimulus to a small extent to the growth of vegetables. This at least may be the case if the clay or earth burnt shall abound with vegetable matter, and if the burning is conducted in such a smothered way as to prevent the smoke or vegetable matter from escaping. But as it is the subsoil that is recommended, and seems to be generally used for burning, it is impossible any considerable quantity of vegetable matter can be found in it. The calcareous matter in the soil, it is said, will be calcined and formed into lime by the operation of burning. But I am disposed to consider this argument as far more plausible than solid. Calcareous matter is no doubt found, on chemical analysis, to a certain extent in some soils; perhaps some perceptible portion of it may be found in every soil. But it is seldom or never found in any soil to such an extent as to be of much use as a manure to other land. Even when the soil is impregnated with a large portion of calcareous matter, if it is not in the form of limestone, but minutely mixed with it, the burning cannot either increase or much alter the lime. If it is in the form of stones, however small, or in what is called limestone gravel, there is little chance of its being calcined in the operation of burning the clay; it would go through that ordeal unaltered. Any change, therefore, that can be made upon the small portion of calcareous matter in the soil, by burning in the manner directed, can scarcely have any perceptible effect when that matter is applied as manure to other soils. And though it is possible that some qualities in particular soils, unfavorable to vegetation, may be corrected by burning, and that in some other instances the fire may render the clay more nutritive to plants (though I have not been able to trace this, or even to conjecture how it can happen), yet I am much disposed to believe that its effect as a mechanical mixture in opening the pores of the soil is the chief improvement that can be derived from the application of burnt clay as a manure. If it has any other effect it must be from the soot or carbonic matter collected during the operation of burning; or perhaps it may acquire by the torrefaction somewhat of a stimulating quality, that may for a short time promote the growth of particular plants. But these qualities can only be to a small extent, and continue to act for a very limited period.'—*Far. Mag.* xxii. 422.

According to a writer in the *Farmer's Journal* the action of burnt clay is at least three-fold, and may be manifold. It opens the texture of stubborn clays, gives a drain to the water, spirals

cles to the air, and affords to the roots facility of penetrating. Clay ashes burned from turves, containing an admixture of vegetable matter, consist, in some small proportion, of vegetable alkali, or potassa, a salt which is known to be a good manure. It also, in most cases, happens, that a stiff cold clay is impregnated with pyrites, a compound of sulphuric acid and iron. Although the chemical attraction between these two bodies is so strong that it is one of the most difficult operations in the arts totally to free iron from sulphur, yet a very moderate heat sublimes a large portion of the sulphur. The iron is then left at liberty to re-absorb a portion of the redundant sulphuric acid, which too generally is found in these soils, and thereby sweetens the land; and it is probable that the bright red, or crimson calx of iron, which gives coloring to the ashes when over burnt, is beneficial to vegetation in the present case, inasmuch as it is, of itself, one of the happiest aids to fertility, as is exemplified in the red marl strata, and red sand strata throughout the kingdom. The evolution and re-combination of different gases, no doubt, materially affect the question; but it is reserved for accurate chemical observers to give us an account of the processes which take place in this respect. Curwen notices that clay ashes do no benefit as a top dressing on grass, which is in part to be explained by reason that the ashes, when spread on the surface of the grass, cannot exert the mechanical action on the soil in the ways enumerated. Neither can the calx of iron come so immediately in contact with the particles of the soil, for the producing of any chemical effect, as it would do if the ashes were ploughed in. In short, like many other manures which are laid on the surface, unless it contains something soluble which may be washed into the ground by rains, it does very little good; and the feeble proportion of vegetable alkali is probably the only soluble matter the ashes contain. However sanguine may be the admirers of burnt clay, all experience confirms that the most beneficial clay-ashes are those which are burnt from the greatest proportion of rich old turf, ancient banks, roots of bushes, and other vegetable matters; and I conceive the value of mere powdered pottery (for such it is) may easily be overrated.—*Far. Journ.* 1819.

The common method of burning clay is thus described by Mr. Loudon. An oblong enclosure, of the dimensions of a small house (say fifteen feet by ten), is made of green turf sods, raised to the height of three and a half or four feet. In the inside of this enclosure, air-pipes are drawn diagonally, which communicate with holes left at each corner of the exterior wall. These pipes are formed of sods put on edge, and the space between these so wide only as another sod can easily cover. In each of the four spaces left between the air-pipes and the outer wall, a fire is kindled with wood and dry turf, and then the whole of the inside of the enclosure or kiln filled with dry turf, which is very soon on fire; and on the top of that, when well kindled, is thrown the clay, in small quantities at a time, and repeated as often as necessary, which must be regulated by the intensity of the burning. The

air-pipes are of use only at first, because, if the fire burns with tolerable keenness, the sods forming the pipes will soon be reduced to ashes. The pipe on the weather side of the kiln only is left open, the mouths of the other three being stopped up, and not opened, except the wind should veer about. As the inside of the enclosure, or kiln, begins to be filled up with clay, the outer wall must be raised in height, always taking care to have it at least fifteen inches higher than the top of the clay, for the purpose of keeping the wind from acting on the fire. When the fire burns through the outer wall, which it often does, and particularly when the top is overloaded with clay, the breach must be stopped up immediately, which can only be effectually done by building another sod wall from the foundation, opposite to it, and the sods that formed that part of the first wall are soon reduced to ashes. The wall can be raised as high as may be convenient to throw on the clay, and the kiln may be increased to any size, by forming a new wall when the previous one is burnt through. The principal art consists in having the outer wall made quite close and impervious to the external air, and taking care to have the top always lightly, but completely covered with clay; because, if the external air should come in contact with the fire, either on the top of the kiln, or by means of its bursting through the sides, the fire will be very soon extinguished. In short, the kiln requires to be attended to nearly as closely as charcoal pits. Clay is much easier burnt than either moss or loam;—it does not undergo any alteration in its shape, and on that account allows the fire and smoke to get up easily between the lumps; whereas moss and loam, by crumbling down, are very apt to smother the fire, unless carefully attended to. No rule can be laid down for regulating the size of the lumps of clay thrown on the kiln, as that must depend on the state of the fire; but I have found every lump completely burnt on opening the kiln; and some of them were thrown on larger than my head. Clay, no doubt, burns more readily if it be dug up and dried for a day or two before it be thrown on the kiln; but this operation is not necessary, as it will burn though thrown on quite wet. After a kiln is fairly set a going, no coal or wood, or any sort of combustible is necessary, the wet clay burning of itself, and it can only be extinguished by intention, or the carelessness of the operator,—the vicissitudes of the weather having hardly any effect on the fire, if properly attended to. It may, perhaps, be necessary to mention that, when the kiln is burning with great keenness, a stranger to the operation may be apt to think that the fire is extinguished. If, therefore, any person, either through impatience, or too great curiosity, should insist on looking into the interior of the kiln, he will certainly retard, and may possibly extinguish the fire; for, as before mentioned, the chief art consists in keeping out the external air from the fire. Where there is abundance of clay, and no great quantity of green turf, it would perhaps be best to burn the clay in draw-kilns the same as lime.

Colonel Dickson, at Hexham, and other gentlemen of Northumberland, instead of building a

kiln use gratings or arches of cast iron, to form a vault or funnel for the fuel, and over this funnel the clay is built. The grated arches are made about two feet and a half long, two feet diameter, and about fourteen inches high. One grating is to be filled with brushwood, stubble, or any other cheap fuel, and the clay, as it is dug, built upon it to a convenient height, leaving small vacancies, or boring holes, to allow the heat to penetrate to the middle and outer parts of the clay. When a sufficient quantity is built upon the first grating, another is added at either or both ends, filled with similar fuel, and the clay built upon them as before. This process is continued until ten, twelve, or a greater number of the gratings have been used, when one end is built up or covered with clay, and at the other, under the last grating, a fire is made of coals or faggot wood. The end at which the fire is made should face the wind if possible, and if the process has been properly conducted the clay will be effectually burnt. By commencing with a centre grating, in the form of a cross, the workman may build from four ends in the place of two; this contrivance will afford a facility in the work, and have a draft of wind at two entrances. The advantage of this mode of burning clay is the saving of cartage, as the clay may be always burned where it is dug.

Mr. Curwen has practised burning clay and surface soil by lime without fuel (*Farm. Mag.* vol. xvi. p. 11, 12), in the following manner:—Mounds of seven yards in length, three and a half in breadth, are kindled with seventy-two Winchester bushels of lime. First, a layer of dry sods or parings, on which a quantity of lime is spread, mixing sods with it; then a covering of eight inches of sods, on which the other half of the lime is spread, and covered a foot thick: the height of the mound being about a yard. In twenty-four hours it will take fire. The lime should be immediately from the kiln. It is better to suffer it to ignite itself, than to effect it by operation of water. When the fire is fairly kindled, fresh sods must be applied. Mr. Curwen recommends obtaining a sufficient body of ashes before any clay was put on the mounds. The fire naturally rises to the top. It takes less time, and does more work to draw down the ashes from the top, and not to suffer it to rise above six feet. The former practice of burning in kilns was more expensive; did much less work; and, in many instances, calcined the ashes, and rendered them of no value.

2. *Of ridges.*—The first thing is to consider what grounds ought to be formed into ridges, and what ought to be tilled with a flat surface. Dry soils, which suffer by want of moisture, ought to be tilled flat, to retain moisture. The method for such tilling is to go round from the circumference to the centre, or from the centre to the circumference. This method is advantageous in point of expedition, as the whole is finished without once turning the plough. At the same time, every inch of the soil is moved, instead of leaving either the crown or the furrow unmoved, as is commonly done in tilling ridges. Clay soil, which suffers by water standing on it, ought to

be laid as dry as possible by proper ridges. A loamy soil is the medium between these two. It ought to be tilled flat in a dry country, especially if it incline to the soil first mentioned. In a moist country, it ought to be formed into ridges, high or low according to the degree of moisture and tendency to clay.

In grounds that require ridging, an error prevails, that ridges cannot be raised too high. But high ridges labor under several disadvantages. The soil is heaped upon the crown, leaving the furrows bare; the crown is too dry, and the furrows too wet; the crop, which is always best on the crown, is more readily shaken with the wind, than where the whole crop is of an equal height; the half of the ridge is always covered from the sun, a disadvantage which is far from being slight in a cold climate. High ridges labor under another disadvantage; in ground that has no more level than barely sufficient to carry off water, they sink the furrows below the level of the ground; and consequently retain water at the end of every ridge. The furrows ought never to be sunk below the level of the ground. Water will more effectually be carried off by lessening the ridges both in height and breadth; a narrow ridge the crown of which is but eighteen inches higher than the furrow, has a greater slope than a very broad ridge where the difference is three or four feet.

In forming ridges, where the ground hangs considerably, they may be too steep as well as too horizontal; and, if to the ridges be given all the steepness of a field, a heavy shower may do irreparable mischief. To prevent this the ridges ought to be so directed cross the field as to have a gentle slope, for carrying off water slowly, and no more. In that respect, a hanging field has greatly the advantage of one that is nearly horizontal; because, in the latter, there is no opportunity of a choice in forming the ridges. A hill is of all ground the best adapted for directing the ridges properly. If the soil be gravelly, it may be ploughed round and round, beginning at the bottom and ascending gradually to the top in a spiral line. This method of ploughing a hill, requires no more force than ploughing on a level; and removes the great inconvenience of a gravelly hill, that rains go off too quickly; for the rain is retained in every furrow. If the soil be such as to require ridges, they may be directed to any slope that is proper.

To form a field into ridges, that has not been formerly cultivated, the rules mentioned are easily put in execution. After seeing the advantage of forming a field into ridges, people were naturally led into an error, that the higher the better. But the practice of making their ridges crooked certainly did not originate from design, but from the laziness of the driver suffering the cattle to turn, instead of making them finish the ridge without turning. There is more than one disadvantage in this slovenly practice. First, the water is kept in by the curve at the end of every ridge, and sours the ground. Secondly, as a plough has the least friction possible in a straight line, the friction must be increased in a curve, the back part of the mould-board pressing hard on the one hand, and the

coulter pressing hard on the other. Thirdly, the plough moving in a straight line has the greatest command in laying the earth over. But, where the straight line of the plough is applied to the curvature of a ridge to heighten it by gathering, the earth moved by the plough is continually falling back, in spite of the most skilful ploughman.

The inconveniences of ridges high and crooked are so many that one would be tempted to apply a remedy at any risk. And yet, if the soil be clay, it would not be advisable for a tenant to apply the remedy upon a lease shorter than too nineteen years. In a dry gravelly soil, the work is not difficult or hazardous. When the ridges are cleaved two or three years successively in the course of cropping, the operation ought to be concluded in one summer. The earth, by reiterated ploughings, should be accumulated upon the furrows, so as to raise them higher than the crowns; they cannot be raised too high, for the accumulated earth will subside by its own weight. Cross ploughing, once or twice, will reduce the ground to a flat surface, and give opportunity to form ridges at will. The same method brings down ridges in clay soil; only let the work be carried on with expedition; because a hearty shower, before the new ridges are formed, would soak the ground in water, and make the farmer suspend the work for the remainder of that year at least. In a strong clay, the ridges should not be altered, unless it can be done to perfection in one season. On this subject Dr. Anderson has said, 'The difficulty of performing this operation properly with the common implements of husbandry, and the obvious benefit that accrues to the farmer from having his fields level, has produced many new inventions of ploughs, harrows, drags, &c., calculated for speedily reducing the fields to that state; none of which have as yet been found fully to answer the purpose for which they were intended, as they all indiscriminately carry the earth that was on the high places into those that were lower; which, although it may, in some cases, render the surface of the ground tolerably smooth and level, is usually attended with inconveniences far greater, for a considerable length of time, than that which it was intended to remove. For experience sufficiently shows that even the best vegetable mould, if buried for any length of time so far beneath the surface as to be deprived of the benign influences of the atmosphere, becomes an inert lifeless mass, little fitted for nourishing vegetables; and constitutes a soil very improper for the purposes of the farmer. It therefore behoves him to preserve, on every part of his fields, an equal covering of that vegetable mould that has long been uppermost, and rendered fertile by the meliorating influence of the atmosphere. But if he suddenly levels his high ridges, by any of these mechanical contrivances, he buries all the good mould that was on the top of the ridges in the old furrows, by which he greatly impoverishes one part of his field, while he too much enriches another, and he has the mortification frequently to see the one half of his crop rotted by an over-luxuriance, while other parts of it are weak and sickly, or one part ripe and ready for reaping, while the other is not properly filled.

'On these accounts, if the farmer has not a long lease, it will be in general much his interest to leave the ridges as he found them, rather than to attempt to alter their direction; and, if he attends with due caution to moderate the height of these ridges, he may reap very good crops. But, where a man is secure of possessing his ground for any length of time, the advantages that he will reap from having level and well laid out fields are so considerable as to be worth purchasing, if it should even be at a considerable expense. But the loss that is sustained at the beginning by this mechanical mode of levelling ridges, if they are of considerable height, is so very great, that it is doubtful if any future advantages can fully compensate it. I would therefore advise that all this levelling apparatus should be laid aside, and the following more efficacious practice be substituted in its stead: a practice that I have long followed with success, and can safely recommend as the very best that has yet come to my knowledge.

'If the ridges have been raised to a very great height, as a preparation for the ensuing operations, they may be first cloven, or scalded out, as it is called, that is, ploughed so as to lay the earth on each ridge from the middle towards the furrows; but, if they are only of a moderate degree of height, this operation may be omitted. When you mean to proceed to level the ground, let a number of men be collected, with spades, more or fewer as the nature of the ground requires, and then set a plough to draw a furrow directly across the ridges of the whole field intended to be levelled. Divide this line into as many parts as you have laborers, allotting to each one ridge or two, more or less, according to their number, height, and other circumstances. Let each of the laborers, as soon as the plough has passed that part assigned him, begin to dig in the bottom of the furrow that the plough has just made, about the middle of the side of the old ridge, keeping his face towards the old furrow, working backwards till he comes to the height of the ridge, and then turn towards the other furrow, and repeat the same on the other side of the ridge, always throwing the earth that he digs up into the deep old furrow between the ridges that is directly before him; taking care not to dig deep where he first begins, but to go deeper and deeper as he advances to the height of the ridge, so as to leave the bottom of the trench he thus makes across the ridge entirely level, or as nearly so as possible. And when he has finished that part of the furrow allotted to him that the plough has made in going, let him then finish in the same manner his own portion of the furrow that the plough makes in returning. In this manner each man performs his own task through the whole field, gradually raising the old furrows as the old heights are depressed. And if an attentive overseer is at hand, to see that the whole is equally well done, and that each furrow is raised to a greater height than the middle of the old ridges, so as to allow for the subsiding of that loose earth, the operation will be entirely finished at once, and never again need to be repeated.

'In performing this operation, it will always be proper to make the ridges formed for the

purpose of levelling, which go across the old ridges, as broad as possible; because the deep trench that is thus made in each of the furrows is an impediment in the future operations, as well as the height that is accumulated in the middle of each of these ridges; so that the fewer there are of these the better. The farmer, therefore, will do well to advert to this, and begin by forming a ridge by always turning the plough to the right hand, till it becomes of such breadth as makes it very inconvenient to turn longer in that manner; and then, at the distance of twice the breadth of this new-formed ridge from the middle of it, mark off a furrow for the middle of another ridge, turning round it to the right hand, till it becomes of the same breadth, and then, turning to the left hand, plough out the interval that was left between the two new-formed ridges. By this mode of ploughing, each ridge may be made of forty, or fifty, or sixty yards in breadth, without any great inconvenience; for, although some time will be lost in turning at the ends of these broad ridges, yet, as this operation is only to be once performed in this manner, the advantage that is reaped by having few open furrows is more than sufficient to counterbalance it. To moderate the height that would be formed in the middle of each of these great ridges, it will be proper to mark out the ridges, and draw the furrow that is to be the middle of each some days before you collect your laborers to level the field, that you may, without any hurry or loss of labor, clear out a good trench through the middle of each of the old ridges; as the plough at this time, going and returning nearly in the same track, prevents the laborers from working properly without this precaution. If these rules are attended to, your field will be at once reduced to a proper level, and the rich earth that formed the surface of the old ridge be still kept upon the surface of your field; so that the only loss that the possessor of such ground can sustain by this operation is merely the expense of performing it.

Dr. Anderson afterwards makes a calculation of the different expenses of levelling by the plough and by the spade, in which he finds the latter by far the cheapest method. It should be a rule, according to him, to direct the ridges north and south if the ground will permit. In this direction, the east and west sides of the ridges, dividing the sun equally between them, will ripen at the same time. It is a great advantage to form ridges so narrow and so low as to admit the crowns and furrows to be changed alternately every crop. The soil nearest the surface is the best; and, by such ploughing, it is always kept near the surface, and never buried. In high ridges the soil is accumulated at the crown, and the furrows left bare. Such alteration of crown and furrow is easy, where the ridges are only seven or eight feet broad. This mode of ploughing answers perfectly well in sandy and gravelly soils, and even in loam; but it is not safe in clay soil. In that soil the ridges ought to be twelve feet wide, and twenty inches high; to be preserved always in the same form by casting, that is, by ploughing two ridges together, beginning at the furrow that separates

them, and ploughing round and round till the two ridges be finished. By this method, the separating furrow is raised a little higher than the furrows that bound the two ridges. But at the next ploughing that inequality is corrected, by beginning at the bounding furrows, and going round and round till the ploughing of the two ridges be completed at the separating furrow.

For cleaning the ground of weeds, a cleaning harrow is often used. It is drawn by a single horse, directed by reins, which the man at the opposite corner puts over his head, to have both hands free. In this corner is fixed a rope, with which the man from time to time raises the harrow from the ground, to let the weeds drop. For the sake of expedition, the weeds ought to be dropped in a straight line cross the field, whether the harrow be full or not; and seldom is a field so dirty but that the harrow may go thirty yards before the teeth are filled. The weeds will be thus laid in parallel rows, like those of hay raked together for drying. A harrow may be drawn swiftly along the rows, to shake out all the dust; and then the weeds may be carried clean off the field in carts. But, instead of burning them, they may be converted into useful manure, by laying them in a heap, with a mixture of hot dung to begin fermentation. At first view, this way of cleaning land will appear operose; but neither the labor nor expense is immoderate. At any rate, these ought not to be grudged; for, if a field be once thoroughly cleaned, the seasons must be very cross, or the farmer very indolent, to make it necessary to renew the operation in less than twenty years. In the worst seasons a few years' pasture is always under command; which effectually destroys triennial plants, such as thistles and couch-grass.

3. We may here offer a few remarks of a practical kind on soils:—i. *Clay* is in general the stiffest of all soils, and contains an unctuous quality. See *CLAY*. But, under the term clays, earths of different sorts and colors are included. One kind is so obstinate that scarcely any thing will subdue it; another is so hungry and poor that it absorbs whatever is applied, and turns it into its own quality. Some clays are fatter than others, and the fattest are the best; some are more soft and slippery. But all of them retain water poured on their surfaces, where it stagnates, and chills the plants, without sinking into the soil. The closeness of clay prevents the roots and fibres of plants from spreading in search of nourishment. The blue, the red, and the white clay, if strong, are unfavorable to vegetation. The stony and looser sort are less so; but none of them are worth any thing till their texture is so loosened by a mixture of other substances, and opened, as to admit the influence of the sun, the air, and frost. Among the manures recommended for clay, sand is of all others to be preferred: and sea-sand the best of all, as it most effectually breaks the cohesion. It is preferred, because it is not formed wholly of small stones; but contains a great deal of calcareous matter, such as, shells grated and broken to pieces by the tide; and also salts. The smaller the sand is the more easily it penetrates the clay; but it abides less time in it than the larger. The next best

sand is that washed down by rains on gravelly soils. Those which are dry and light are the worst. Small gritty gravel has also been recommended by the best writers on agriculture, for these soils; and in many instances they have answered the purpose. Shells, marle, ashes, and all animal and vegetable substances, are very good manures for clay; but they have been found most beneficial when sand is mixed with them. Lime has been often used, but eminent agriculturists have found no advantage from it singly, when applied to clays. The crops most suitable for such lands are, wheat, beans, cabbages, and rye-grass. Clover seldom succeeds, nor indeed any plants whose roots require depth, and a wide spread in the earth.

ii. *Chalk*.—Chalky soils are generally dry and warm, and, if there be a tolerable depth of mould, fruitful; producing great crops of barley, rye, peas, vetches, clover, trefoil, burnet, and particularly sainfoin. The latter plant flourishes in a chalky soil better than any other. But, if the surface of mould be very thin, this soil requires good manuring with clay, marl, loam, or dung. As these lands are dry, they may be sown earlier than others. When barley is three inches high, throw in 10 lbs. of clover, 15 lbs. of trefoil, and roll it well. The next summer mow the crop for hay; feed off the aftermath with sheep; and in winter give it a top-dressing of dung. This will produce a crop the second spring, which should be cut for hay. As soon as this crop is carried off plough up the land, and in the beginning of September sow three bushels of rye per acre, either to feed off with sheep in the spring or to stand for harvest. If you feed it off, sow winter vetches in August or September, and make them into hay the following summer. Then get the land into as fine tilth as possible, and sow it with sainfoin, which, with a little manure once in two or three years, will remain and produce good crops for twenty years together.

iii. *Light poor land* seldom produces good crops of any thing, till well manured. After it is well ploughed, sow three bushels of buck wheat per acre, in April or May. When in bloom, let the cattle in a few days eat off the best, and tread the other down; this done, plough in what remains immediately. This will soon ferment and rot; then lay it fine, and sow three bushels of rye per acre. If this can be got off early enough, sow turnips, if not, winter vetches to cut for hay. Then get it in good tilth and sow turnip-rooted cabbages, in rows three feet apart. This plant seldom fails, if it has sufficient room, and the intervals are well horse-hoed; and it is the best spring feed for sheep when turnips are over. The horse-hoeing will clean and prepare the land for sainfoin, for the sowing of which April is the best season. The usual way is to sow it broad-cast, four bushels to an acre; but experienced husbandmen prefer sowing it in drills two feet asunder; for then it may be horse-hoed, and half the seed will be sufficient. The horse-hoeing will also earth up the plants, and render them more luxuriant and lasting. If you sow it broad-cast, give it a top-dressing in December or January of rotten dung or ashes, or rather of both mixed up in compost. From

various trials, it is found that taking only one crop in a year, and feeding the after-growth, is better than to mow it twice. Cut it as soon as it is in full bloom, if the weather will permit. The hay will be the sweeter, and the strength of the plants less impaired, than if it stands till the seed is formed.

iv. *Light rich land*, being the most easy to cultivate to advantage, and capable of bearing most kinds of grain, pulse, and herbage, little need be said upon it. Such lands are the best adapted to the drill husbandry, especially where machines are used, which require shallow furrows to be made for the seed. This, if not prone to couch-grass, is the best of all soils for lucerne; which, if sown in two feet drills, and kept clean, will yield an astonishing quantity of the most excellent herbage. But lucerne will never be cultivated to advantage where couch-grass and weeds abound; nor in the broad-cast method, even where they do not; because horse-hoeing is essential to the vigorous growth of this plant.

v. *Coarse rough land*.—Plough deep in autumn; when it has lain two weeks, cross plough it, and let it lie rough through the winter. In March give it another good ploughing; drag, rake, and harrow it well to get out the rubbish, and sow four bushels of black oats per acre if the soil be wet, and white oats if dry. When about four inches high, roll them well after a shower; this will break the clods; and the fine mould, falling among the roots of the plants, will promote their growth greatly. Some sow clover and rye grass among the oats, but this is bad husbandry. If designed for clover, sow it singly, and let a coat of dung be laid on it in December. The snow and rain will then dilute its salts and oil, and carry them down among the roots of the plants. This is better than mixing the crops on such land; for the oats will exhaust the soil so much that the clover will be impoverished. The following summer you will have a good crop of clover, which cut once, and feed the after-growth. In the winter plough it in, and let it lie till February; then plough and harrow it well; and in March, if the soil be moist, plant beans in drills of three feet, to admit the horse-hoe freely. When you horse-hoe them a second time, sow a row of turnips in each interval, and they will succeed well. But, if the land be strong enough for sowing wheat as soon as the beans are off, the turnips may be omitted.

4. *Of ploughing*.—No operation of agriculture is of more importance than ploughing; and, as the Essex Report on Agriculture here observes, 'there is scarcely a circumstance in agriculture more surprising, after so general attention has been paid to it, than the extreme uncertainty in which the true structure of the plough yet remains. That variations for different soils and circumstances must and ought to occur is admitted; but one plough for one specific object might have been produced, its superiority to others ascertained, and the principles in its construction, on which such merit depended, fully developed, and laid down in accurate drawings; yet this has not been done: the only approximation to it is, it is contended,

in a paper by the late Mr. Arbuthnot, which the writer published nearly forty years ago in his 'Eastern Tour.' Farming mechanics, it is supposed, look to the Board of Agriculture for supplying this great deficiency, which can be supplied only by a series of experiments, demanding a considerable expense, and more attention.³ But more of the construction of particular ploughs hereafter. We only need add here that *wheels* added to ploughs have, in the estimation of many good farmers, been only an apology for want of skill in the ploughman. Yet they often afford much assistance, by enabling him to execute the work with greater regularity in the depth, and more evenness in the surface. From the nature of the machinery with which they are loaded, however, they are evidently more expensive in their construction, more liable to be put out of order, and from the friction that is thus produced require more strength in the teams that are employed in drawing them. Besides, they have the disadvantage of being more apt to be put out of order in their course, by the occurrence of stones, clods, and other surface inequalities, than those of the common kind. A further inconvenience attending these ploughs is noticed by lord Somerville in the Communications to the Board of Agriculture, which is, that with wheel-ploughs workmen are apt to set the points of their shares too low, so as by their inclined direction to occasion a heavy pressure on the wheel, which must proceed horizontally. He conceives the effect of this struggle to be an increased weight of draught infinitely beyond what could be imagined, on which account he thinks that the wheel is to be considered as of no consequence in setting a plough for work; but that passing lightly over the surface it will be of material use in breaking old lays, or lands where flints, rocks, or the roots of trees are present, and in correcting the depression of the share from any sudden obstruction, as also in bringing it quickly into work again, when thrown out towards the surface. It is however believed on the whole, by the writer of the Middlesex Report, that in comparing two extensive districts, one of which is managed with wheel-ploughs, and the other with those of the swing kind, taking ever description of ploughmen that are met with in them, the wheel-ploughs will be found to have the advantage in point of neatness of work. See PLATES OF PLOUGHS.

But the great weight of the carriage parts for the wheels, and the time and trouble which they require in adjusting and fixing them, are great objections to the use of this sort of plough in most cases, and particularly for the general purposes of husbandry. Therefore, in the forming of all sorts of ploughs, the less they are encumbered with machinery of the wheel or other kinds, the more useful they will probably be found.

Holding the plough in a proper position, and properly directing the horses or cattle which draw it, are only to be acquired by experience: it scarcely need be added, that the art of drawing a straight furrow with a plough in which the horses are yoked in pairs, consists in keeping each of the horses a small distance

apart, so as to see forward between them; and next to fix the eye on some object or objects over the land, and keep these objects and the coulter or muzzle of the plough in one line. By far the best practical directions for ploughing, as Mr. Loudon thinks, are thus given in the Supplement to the Encyclopædia Britannica, by Mr. Cleghorn.

Three different points require particular attention in ploughing: 1. The breadth of the slice to be cut; 2. its depth; and 3. the degree in which it is to be turned over;—which last circumstance depends both upon the construction of the plough, particularly the mould-board, and the care of the ploughman.

'The breadth and depth of the furrow-slice are regulated by judiciously placing the draught on the nozzle or bridle of the plough; setting it so as to go more or less deep, and to take more or less land or breadth of slice, according as may be desired. In general, the plough is so regulated that, if left to itself, and merely kept from falling over, it would cut a little broader and a little deeper than is required. The coulter is also placed with some inclination towards the left or land side, and the point of the sock or share has a slight tendency downwards. The degree to which the furrow-slice turns over is in a great measure determined by the proportion between its breadth and depth, which for general purposes is usually as three is to two; or, when the furrow is nine inches broad, it ought to be six inches in depth. When the slice is cut in this proportion, it will be nearly half turned over, or recline at an angle of forty or forty-five degrees; and a field so ploughed will have its ridges longitudinally ribbed into angular drills or ridgelets. But if the slice is much broader, in proportion to its depth, it will be almost completely overturned, or left nearly flat with its original surface downwards; and each successive slice will be somewhat overlapped by that which was turned over before it. And, finally, when the depth materially exceeds the width, each furrow-slice will fall over on its side, leaving all the original surface bare, and only laid somewhat obliquely to the horizon.

Ploughing with the breadth and depth nearly in the proportion of three to two is best adapted for laying up stubble land after harvest, when it is to remain during winter exposed to the mellowing influence of frost, preparatory to fallow or turnips. The shallow furrow of considerable width, as five inches in depth by eight or nine wide, is understood to answer best for breaking up old leys; because it covers up the grass turf, and does not bury the manured soil. Ploughing with the depth of the furrow considerably exceeding the width is a most unprofitable and uselessly slow operation, which ought seldom or never to be adopted. The most generally useful breadth of a furrow-slice is from eight to ten inches, and the depth, which ought to be seldom less than four inches, cannot often exceed six or eight inches, except in soils uncommonly thick and fertile. When it is necessary to go deeper, as for carrots and some other deep-rooted plants: a trench ploughing may be given by means of a second plough following in the same furrow.

Shallow ploughing ought always to be adopted after turnips are eaten on the ground, that the manure may not be buried too deep; and also in covering lime,—especially if the ground has been pulverised by fallowing, because it naturally tends to sink in the soil. In ploughing down farm-yard dung, it is commonly necessary to go rather deep, that no part of the manure may be left exposed to the atmosphere. In the first ploughing, for fallows or green crops, it is advisable to work as deep as possible, and no great danger is to be apprehended, though a small portion of the subsoil be at that time brought to the surface. The furrow-slices are generally distributed into beds varying in breadth according to circumstances; these are called ridges or lands, and are divided from one another by gutters or open furrows. These last serve as guides to the hand and eye of the sower to the reapers, and also for the application of manures in a regular manner. In soils of a strong or retentive nature, or which have wet close subsoils, these furrows serve likewise as drains for carrying off the surface water, and being cleared out, after the land is sown and harrowed, have the name of water furrows.

Ridges are not only different in breadth, but are raised more or less in the middle, on different soils. On clayey retentive soils, the great point to be attended to is the discharge of superfluous water. But narrow ridges or stitches, of from three to five feet, are not approved of in some of the best cultivated counties. In these a breadth of fifteen or eighteen feet, the land raised by two gatherings of the plough, is most commonly adopted for such soils; such ridges being thought more convenient for manuring, sowing, harrowing, and reaping than narrower ones; and the water is drained off quite as effectually. Ridges on dry porous turnip soils may be formed much broader; and, were it not for their use in directing the laborers, may be, and sometimes are, dispensed with altogether. They are often thirty, or thirty-six feet broad, which in Scotland are called band-win ridges, because reaped by a band of shearers, commonly six, served by one binder. If it be wished to obliterate the intermediate furrows, this may be done by casting up a narrow ridglet or single bout-drill between the broad ridges, which is afterwards levelled by the harrows.

The mode of forming ridges straight and of uniform breadth is as follows:—Let us suppose a field perfectly level that is intended to be laid off into ridges of any determinate breadth. The best ploughman belonging to the farm conducts the operation, with the aid of three or more poles shod with iron, in the following manner:—The first thing is to mark off the head ridges, on which the horses turn in ploughing, which should in general be of an equal breadth from the bounding lines of the field, if these lines are not very crooked or irregular. The next operation, assuming one straight side of the field, or a line that has been made straight, as the proper direction of the ridges, is to measure off from it with one of the poles (all of them of a certain length, or expressing specific measures), half the intended breadth of the ridge, if it is to

be gathered, or one breadth and a half if to be ploughed flat; and there the ploughman sets up a pole as a direction for the plough to enter. On a line with this, and at some distance, he plants a second pole, and then in the same manner a third, fourth, &c., as the irregularity of the surface may render necessary, though three must always be employed, the last of them at the end of the intended ridge, and the whole in one straight line. He then enters the plough at the first pole, keeping the line of poles exactly between his horses, and ploughs down all the poles successively; halting his horses at each, and replacing it at so many feet distant as the ridges are to be broad; so that, when he reaches the end of the ridge, all his poles are again set up in a new line parallel to the first. He returns, however, along his former track, correcting any deviations, and throwing a shallow furrow on the side opposite to his former one. These furrows, when reversed, form the crown of the ridge, and direct the ploughmen who are to follow. The same operations are carried on until the whole field is marked out. This is called feiring in Scotland, and striking the furrows in England. It is surprising with what accuracy these lines are drawn by skilful ploughmen. Another method has been adopted for the same purpose, which promises to be useful with less experienced workmen. A stout lath or pole, exactly equal in length to the breadth of the intended ridge, is fixed to the plough at right angles to the line of the draught, one end of which is placed across the handles exactly opposite the coulter, while the other end projects towards the left hand of the ploughman, and is preserved in its place by a rope passing from it to the collar of the near-side horse. At the outer end of the lath a coulter or harrow tine is fixed perpendicularly, which makes a trace or mark on the ground, as the plough moves onwards, exactly parallel to the line of draught. By this device, when the plough is feiring the crown of one ridge, the marker traces the line on which the next ridge is to be feired.—*General Report of Scotland*, vol. i. p. 354.

The direction and length of ridges are points which must evidently be regulated by the nature of the surface, and the size of the field. Short angular ridges, called butts, which are often necessary in a field with irregular boundaries, are always attended with a considerable loss of time, and ought to be avoided as much as possible. In ploughing steep land it is thought advisable to give the ridges an inclination towards the right hand at the top, by which, in going up the acclivity, the furrow falls more readily from the plough, and with less fatigue to the horses. Another advantage of forming ridges in a slanting direction, on such lands, is that the soil is not so apt to be washed down from the higher ground, as if the ridges were laid at right angles. Wherever circumstances will permit, the best direction, however, is due north and south, by which the grain on both sides of the ridge enjoys nearly equal advantages from the influence of the sun.

‘Land thus formed into ridges,’ says Mr. Loudon, ‘is afterwards cultivated without mark-

ing out the ridges anew, until the inter-furrows have been obliterated by a fallow or fallow crop. This is done by one or other of the following modes of ploughing. 1. If the soil be dry, and the land has been ploughed flat, the ridges are split out in such a way that the space which the crown of the old ridge occupied is now allotted to the open furrow between the new ones. This is technically called crown and furrow ploughing. 2. When the soil is naturally rather wet, or, if the ridges have been raised a little by former ploughings, the form of the old ridges, and the situation of the inter-furrows, are preserved by what is called casting, that is, the furrows of each ridge are all laid in one direction, while those of the next adjoining ridges are turned the contrary way; two ridges being always ploughed together. 3. It is commonly necessary to raise the ridges, on soils very tenacious of moisture, by what is called gathering; which is done by the plough going round the ridge, beginning at the crown, and raising all the furrow slices inwards. 4. This last operation, when it is wished to give the land a level surface, as in fallowing, is reversed by turning all the furrow-slices outwards; beginning at the crown of each ridge. In order to bring the land into as level a state as possible, the same mode of ploughing, or cleaning, as it is called, may be repeated as often as necessary. With respect to ploughing relatively to time, in the strongest lands, a pair of good horses ought to plough three-quarters of an acre in nine hours; but upon the same land, after the first ploughing, on friable soils, one acre or an acre and a quarter is a common day's work. Throughout the year, an acre a day may be considered as a full average on soils of a medium consistency. The whole series of furrows on an English statute acre, supposing each to be nine inches broad, would extend to 19,360 yards; and adding twelve yards to every 220, for the ground travelled over in turning, the whole work of one acre may be estimated as extending to 20,416 yards, or eleven miles and nearly five furlongs.

'In ploughing relatively to season, it is well known that clayey or tenacious soils should never be ploughed when wet; and that it is almost equally improper to allow them to become too dry, especially if a crop is to be sown without a second ploughing. The state in which such lands should be ploughed is that which is commonly indicated by the phrase, 'between the wet and the dry,'—while the ground is slightly moist, mellow, and the least cohesive. The season best for ploughing the first time, for fallow or green crops, is immediately after harvest, or after wheat sowing is finished; and, when this land has been gone over, the old tough swards, if there be any, are next turned up. The reasons for ploughing so early are sufficiently obvious; as the frosts of winter render the soil more friable for the spring operations, and assist in destroying the weed roots. In some places, however, the first ploughing for fallow is still delayed till after the spring seed-time.'

The cultivator, grubber, scuffler, scarifier, &c., are used to lessen the number of ploughings in

fallows or light free soils. Their operation differs from that of the plough in not reversing the surface, and therefore they can never, as some suppose, become a substitute for that implement. Still the grubber is recommended by good judges as a valuable implement. Lester of Northampton, who is said first to have invented an implement of this kind, declares himself confident that one man, a boy, and six horses, will move as much land in a day, and as effectually, as six ploughs: meaning land in a fallow state that has been previously ploughed. And this may allow us to introduce the important question

5. *Of Fallowing.*—'The vague ancient opinion of the use of nitre, and of nitrous salts in vegetation,' says Sir Humphrey Davy, 'seems to have been one of the principal speculative reasons for the defence of summer fallows. Nitrous salts are produced during the exposure of soils containing vegetable and animal remains, and in greatest abundance in hot weather; but it is probably by the combination of the azote from these remains with oxygen in the atmosphere that the acid is formed; and at the expense of an element which otherwise would have formed ammonia; the compounds of which are much more efficacious than the nitrous compounds in assisting vegetation. Mr. Loudon observes 'that this reason is, however, more speculative than experimental, and seems influenced by the opinion adopted by the author, that fallows are of little use in husbandry. One obvious advantage of aeration in summer, or a summer fallow,' he says, 'is, that the soil may thus be heated by the sun to a degree which it never could be, if partially covered with the foliage of even the widest drilled crops. For this purpose, if the soil is laid up in large lumps, it is evident it will receive more heat by exposing a greater surface to the atmosphere, and it will retain this heat longer than can be expected, from the circumstance of the lumps reflecting back the rays of heat radiated by each other.' A clayey soil in this way (*Farmer's Magazine*, 1815) may be heated to 120°, which may in some degree alter its absorbent powers as to water, and contribute materially to the destruction of vegetable fibre, insects, and their eggs. By the aeration of lands, in winter, minute mechanical division is obtained by the freezing of the water in the soil; for, as water in the solid state occupies more space than when fluid, the particles of earthy matters and of decomposing stones are thus rent asunder, and crumble down in a fine mould. Rough stony soils will thus receive an accession to their finer soil every winter.

'Agricultural experience,' adds our author, 'has fully proved that fallows are the only means by which stiff clays in moist climates can be effectually cleared of weeds. Supposing therefore that no other advantage whatever was obtained, that no nutritive matter was imbibed from the atmosphere, and the soil was neither chemically nor mechanically benefited by aeration, this benefit alone, the effectual eradication of weeds, is sufficient to justify the use of fallows on such soils. Many of the objections to fall-

lows have arisen in consequence of the parties not previously agreeing as to what a summer fallow is. In England generally, or at least formerly, a fallow was a portion of land left a year without culture or cropping: unless being once or twice ploughed can be denominated the former, and an abundant growth of coarse grasses and weeds can constitute the latter. The *jacheres* of the French are the same thing. In Scotland and the best cultivated districts a summer fallow is a portion of land which is begun to be cultivated after the crop is removed in autumn, and is frequently, as need requires, ploughed, harrowed, and otherwise comminuted, and freed from stones, weeds, inequalities, &c., till the autumnal seed-time of the following year: it is thus for twelve months in a state of constant tillage and movement. The result is that the land is thoroughly freed from roots of weeds; from many seeds of weeds, which are thus made to germinate and are then destroyed; and from many eggs of insects which are thus hatched, but, being without plants to nourish them in their larva state, speedily die. The land is also thoroughly pulverised, and the top, bottom, and middle, mixed together; stones are picked out; inequalities unfavorable to surface drainage removed or lessened, and various other useful objects attained. Such a fallow can no more be compared with what usually passes under that name than the plough of Virgil with that of Small.

East Lothian stands, we believe, at the head of the Scottish counties for excellent farming: and here fallowing, introduced at the beginning of the last century, seems to be practised in its greatest perfection. The sixth earl of Haddington, we are told, was the first proprietor, and John Walker, of Beanston, near Dunbar, the first farmer upon this principle. He took the hint from some English travellers, while they spent a night at his house, and with whom he had conversation upon the subject, so much to his satisfaction that he made an experiment upon six acres the following summer, which he carried through in spite of the animadversions of his neighbours, who were divided in their opinions as to the sanity of his mind, or the stability of his circumstances. The result of the experiment gave them a better opinion of both, and the return was so abundant as to induce him to extend his next year's fallow break to twenty acres; soon after which the practice began to spread; and, so early as the year 1724, fallowing upon all the deep strong soils was common throughout the county, and has continued to be so ever since. The practice of the county is thus described in the General Report of Scotland, vol. i. p. 419.

‘Invariably, after harvest, the land intended for being summer fallowed in the ensuing year gets an end-long ploughing, which ought to be as deep as the soil will admit, even though a little of the till or subsoil is brought up. This both tends to deepen the cultivated or manured soil, as the fresh accession of hitherto uncultivated earth becomes afterwards incorporated with the former manured soil, and greatly facilitates the separation of the roots of weeds during the

ensuing fallow process, by detaching them completely from any connexion with the fast subsoil. This autumnal ploughing, usually called the winter furrow, promotes the rotting of stubble and weeds; and, if not accomplished towards the end of harvest, must be given in the winter months, or as early in the spring as possible. In giving this first ploughing, the old ridges should be gathered up, if practicable, as in that state they are kept dry during the winter months; but it is not uncommon to split them out or divide them, especially if the land had been previously highly gathered, so that each original ridge of land is divided into two half ridges. Sometimes, when the land is easily laid dry, the furrows of the old ridges are made the crowns of the new ones, or the land is ploughed in the way technically called crown-and-fur. In other instances two ridges are ploughed together, by what is called casting, which has been already described. After the field is ploughed, all the inter-furrows, and those of the headlands, are carefully opened up by the plough, and are afterwards gone over effectually by a laborer with a spade, to remove all obstructions, and to open up the water furrows into the fence ditches, wherever that seems necessary, that all moisture may have a ready exit. In every place where water is expected to lodge, such as ditches or hollow places in the field, cross or oblique furrows are drawn by the plough, and their intersections carefully opened into each other by the spade. Wherever it appears necessary, cross cuts are also made through the head ridges into the ditches with a spade, and every possible attention is exerted, that no water may stagnate in any part of the field.

‘As soon as the spring seed-time is over the fallow land is again ploughed end-long. If formerly split, it is now ridged up; if formerly laid up in gathered ridges, it is split or cloven down. It is then cross-ploughed; and, after lying till sufficiently dry to admit the harrows, it is harrowed and rolled repeatedly, and every particle of the vivacious roots of weeds brought up to view, carefully gathered by hand into heaps, and either burnt on the field or carted off to the compost midden. The fallow is then ridged up, which places it in a safe condition in the event of bad weather, and exposes a new surface to the harrows and roller; after which the weeds are again gathered by hand, but a previous harrowing is necessary. It is afterwards ploughed, harrowed, rolled, and gathered as often as may be necessary to reduce it into fine tilth, and completely to eradicate all root weeds. Between these successive operations, repeated crops of seedling weeds are brought into vegetation and destroyed. The larvæ likewise of various insects, together with an infinite variety of the seeds of weeds, are exposed to be devoured by birds, which are then the farmer's best friends, though often proscribed as his bitterest enemies. Some writers on husbandry have condemned the use of the harrow and roller in the fallow process, alleging that frequent ploughing is all that is necessary to destroy root-weeds, by the baking or drying of the clods in the sun and wind but experience has ascertained that fre-

quently turning over the ground, though absolutely necessary while the fallow process is going on, can never eradicate couch-grass or other root-weeds. In all clay soils, the ground turns up in lumps or clods, which the severest drought will not penetrate so sufficiently as to kill the included roots. When the land is again ploughed, these lumps are simply turned over and no more, and the action of the plough serves in no degree to reduce them, or at least very imperceptibly. It may be added that these lumps likewise enclose innumerable seeds of weeds, which cannot vegetate unless brought under the influence of the sun and air near the surface. The diligent use, therefore, of the harrow and roller, followed by careful hand-picking, is indispensably necessary to the perfection of the fallow process.

When employed to reduce a strong obdurate soil, not more than two of the common sort of harrows should be yoked together, because they are apt to ride and tumble upon each other, and thus impede the work. It may also be remarked that on rough soils harrows ought to be driven as fast as the horses can walk; because their effect is in direct proportion to the degree of velocity with which they are driven: and the harrow-man's attention should be constantly directed to prevent these implements from riding upon each other, and to keep them clear of every impediment, from stones, lumps of earth, clods, and grass roots. In ordinary cases, and in every case where harrowing is meant for covering the seed, and the common implement in use, three harrows are the best yoke, because they fill up the ground more effectually than when a smaller number is employed; some of the improved forms, calculated to cover the breadth of two or more of the old harrows by one frame, are only fit for flat ridges; or for working dry lands in which ridging is not requisite.

6. *Of the usual crops.*—The preceding part of this treatise is all preparatory to the capital object of a farm, that of raising plants for the nourishment of man and other animals. These (see AGRICULTURE, par. 84) are of two kinds; culmiferous and leguminous; differing widely from each other. Wheat, rye, barley, oats, rye-grass, are of the first kind; of the other kind are peas, beans, clover, cabbage, and many others. The propagation of plants is naturally divided into three subdivisions:—1st. Plants cultivated for fruit; 2d. Plants cultivated for roots; 3d. Plants cultivated for leaves.

SECT. I.—PLANTS CULTIVATED FOR FRUIT.

1. WHEAT takes the lead among plants cultivated for fruit. A sandy soil is thought too loose; the only chance for a crop is after red clover, say some writers, the roots of which bind the soil. Rye is a crop much fitter for sandy soil than wheat; and like wheat is generally sown after a summer-fallow. Sow wheat as soon as the ground is ready. When sown too early, however, it is too forward in spring, and apt to be hurt by frost; when sown a month too late, it has not time to root before frost comes on, and frost spews it out of the ground. The greater part of the wheat crop throughout Britain is probably sown upon fallowed land. When

it succeeds turnips consumed on the ground, or clover cut for hay or soiling, it is commonly sown after one ploughing; but upon heavier soils, or after grass of two or more years, the land is ploughed twice or three times.

Setting of wheat, or dibbling, is a method which is reckoned one of the greatest improvements in husbandry that was made during the last century. It seems to have been first suggested by planting grains in a garden from curiosity, by persons who had no opportunity of extending it to a lucrative purpose. Nor was it attempted on a larger scale, till a farmer near Norwich began it upon less than an acre of land. For two or three years only a few followed his example; and these were generally the butt of their neighbours. They had, however, considerably better corn and larger crops, which, together with the saving of seed, engaged more to follow them. Experiment established the practice, and was the means of introducing it generally among the intelligent farmers of a very large district.

The lands on which this method was found particularly prosperous were either after a clover stubble, or on which trefoil and grass-seed were sown the preceding year. These grounds, after the usual manuring, were once turned over by the plough in an extended flag or turf, at ten inches wide; along which a man, called a dibbler, with two setting-irons somewhat bigger than ram-rods, but considerably bigger at the lower end, and pointed at the extremity, walked backwards along the turf and made the holes about four inches asunder every way, and one deep. Into these holes the droppers (women, boys and girls) dropped two grains, which is quite sufficient. After this a gate, bushed with thorns, was drawn by one horse over the land, and closed the holes. By this mode, three pecks of grain are sufficient for an acre; and, being immediately buried, it is equally removed from vermin or the power of frost. The regularity of its rising gives the best opportunity of keeping it clear from weeds, by weeding or hand-hoeing. Sir Thomas Beevor of Hethel-Hall, in Norfolk, soon found the produce to be two bushels per acre more than from the wheat which is sown; and, having much less small corn intermixed with it, the sample was better, and always fetched a higher price. This method, too, saves to the farmer and to the public many pecks of seed-wheat.

In light lands a very dry time prevents dibbling, as the holes made with the instruments will be filled up again with the mould as fast as the instrument is withdrawn. So, again, in a very wet season, on strong and stiff clays, the seeds in the holes cannot be properly covered by the bushes drawn over them. But these extremes of dry and wet do not often happen, nor do they affect lands of a moderately consistent texture, or both light and heavy soils at the same time, so that the general practice is in fact never greatly impeded by them.

In the Philosophical Transactions for 1768 we meet with an extraordinary experiment for propagating wheat, of which the following is an abstract:—On the 2d of June, 1766, Mr. C. Miller (son of the celebrated gardener of this

name) sowed some grains of the common red wheat; and on the 8th of August, a single plant was taken up and separated into eighteen parts, and each part planted separately. These plants having pushed out several side-shoots, about the middle of September, some of them were taken up and divided, and the rest between that time and the middle of October. This second division produced sixty-seven plants. These plants remained through the winter, and another division of them, made between the middle of March and the 12th of April, produced 500 plants. They were then divided no further, but permitted to remain. The plants were in general stronger than any of the wheat in the fields. Some of them produced upwards of 100 ears from a single root. Many of the ears measured seven inches in length, and contained between sixty and seventy grains. The whole number of ears which, by the process abovementioned, were produced from one grain of wheat, was 21,109, which yielded three pecks and three quarters of clear corn, the weight of which was forty-seven pounds seven ounces; and, from a calculation made by counting the number of grains in an ounce, the whole number of grains was about 576,840. There was only one general division of the plants made in the spring. Had a second been made, Mr. Miller thinks, the number of plants would have amounted to 2000. The ground was a light blackish soil, upon a gravelly bottom; and consequently a bad soil for wheat. One half of the ground was well dunged, the other half had no manure. There was, however, no difference discoverable in the vigor or growth of the plants. It is evident that the expense and labor of setting in the above manner by the hand, will render it impracticable upon a large scale.

A correspondent of the Bath Society, therefore (Robert Bogle, esq.), to extend the practice, proposed the use of the harrow and roller until some better implements be invented. This method occurred to him from attending to the practice usual with farmers, of harrowing their fields after the grain is sprung up. Upon investigating the principles upon which these practices are founded, they said, 'that after very heavy rains, and then excessive dry weather, the surface of their lands was apt to be caked, the tender fibres of the young roots were thereby prevented from pushing, and of course the vegetation was greatly obstructed; in such instances they found very great benefit from harrowing and rolling.' This reasoning he owns to be well founded, but contends that the benefit arising from harrowing and rolling is not derived from pulverising entirely, but from subdividing and enabling the plants to tiller, as it is termed. 'The harrow,' he observes, 'certainly breaks the incrustation, and the roller crumbles the clods; but the harrow removes many of the plants from their original stations; and, if the corn has begun to tiller at the time it is used, the roots will be in many instances subdivided, and then the application of my system of divisibility comes into play. The roller then serves to plant the roots which have been torn up the harrow.' On this the society observe, that the teeth of a harrow are too large

to divide roots so small and tenacious as those of grain; and, whenever such roots stand in the line any tooth makes, they will, if small, be only turned on one side by the earth yielding to their lateral pressure, or, if large, the whole root will be drawn out of the ground. The principal uses, therefore, derived from harrowing and rolling these crops are, opening the soil between the plants, earthing them up, breaking the clods, and closing the earth about their roots. 'I have conversed,' says Mr. Bogle, 'much with many practical farmers, who all admit that my plan has the appearance not only of being practical, but advantageous. I have also seen in the ninth number of Mr. Young's Annals of Agriculture the account of an experiment which strongly corroborates my theory. It was made by the Rev. Mr. Pike of Edmonton. From this, and other experiments which have been made under my own eye, I foresee clearly that the system is practicable, and will certainly be productive of great benefit, should it become general. Besides the saving of nine-tenths of seed in the land sown broad-cast, other very important advantages will attend the setting out of wheat from a seed-bed, such as an early crop; the certainty of good crops; rendering a summer fallow unnecessary; saving dung; and having your wheat perfectly free from weeds without either hand or horse-hoeing: 500 plants in April produced almost a bushel of grain. My gardener says, he can set 1000 plants in a day, which is confirmed by the opinion of two other gardeners.'

Excellent wheat according to Brown (Tracts on Rural Affairs) may be grown on light soils, with the exception of soft sands. Such soils, however, are not constitutionally disposed to the growth of that grain; nor will they, under any management, bear such a frequent repetition of it as those already mentioned. Summer fallow on them may safely be dispensed with; because a crop of turnips, which admits every branch of the cleaning process to be more perfectly executed than even a naked or bare fallow does, may be profitably substituted. Wheat here comes in with propriety after turnips, though, in general cases, it must be sown in the spring months, unless the turnips are stored; in which case it may be sown in November; or it may be sown after clover, for the fourth crop after the rotation; or in the sixth year, as a way-going crop, after drilled peas and beans, if the rotation is extended to that length. But, take it any way, it is scarcely possible to raise wheat so extensively upon light soils, even where they are of the richest quality, as is practicable upon clays; nor will a crop of equal bulk upon the one return so much produce in grain as may be got from the other. To enlarge upon this point would only serve to prove what few husbandmen will dispute, though, it may be added, that, on thin sands, wheat ought not to be ventured, unless they are either completely clayed or marled, as it is only with the help of these auxiliaries that such a soil can gain stamina capable of producing wheat with any degree of success.

'On soils really calculated for wheat, though

in different degrees, summer fallow is the first and leading step to gain a good crop or crops of that grain. The first furrow should be given before winter, or as early as other operations upon the farm will admit; and every attention should be used to go as deep as possible; for it rarely happens that any of the succeeding furrows exceed the first one in that respect. The number of after-ploughings must be regulated by the condition of the ground and the state of the weather; but, in general, it may be observed that ploughing in length and across, alternately, is the way by which the ground will be most completely cut, and the intention of fallowing accomplished. It has been argued that harrowing clay soils, when summer fallowed, is prejudicial to the wheat crop; but, without discussing this point (such a discussion being unnecessary), it may merely be stated that in a dry season it is almost impracticable to reduce real clays, or to work them too small; and that even in a wet one, supposing they are made surface-smooth, they will, when ploughed up again, consolidate into clods or big lumps after forty-eight hours' drought, and become nearly as obdurate as ever. It is only on thin soils, which have a mixture of peat earth, and are incumbent on a bottom impervious to water, that damage is at any time sustained by over harrowing. Such are generally of a weak texture, and may be broken down with facility by the roller and harrow. If caught by much rain, before the pores are in some measure closed, the moisture is greedily absorbed; and, being prevented from going downwards by the hardness of the subsoil, the whole surface becomes a kind of mortar or paste, unless previously well ridged up; which, to a certain extent, prevents the consequences from being dangerous. These evils, however, must be submitted to by the possessors of such soils, if they want to have them sufficiently fallowed and prepared in a proper manner; for, without reducing them, couch-grass, and especially moss, with which they are commonly stored, cannot be eradicated. If they are reduced in the early part of the season, the danger is small; but to break them down in the latter part ought always to be avoided, unless called for by imperious necessity. When wheat is sown after beans it rarely happens, in this northern climate, that more than one ploughing can be successfully bestowed. Before this is given it is advantageous to cross-harrow the land, which levels the drills, and permits the ploughing process to be executed with precision. Almost in every case the ridges should be gathered up, so that the furrows may be well cleared out, and the plants preserved from injury during the inclement winter season. Clover land should be neatly ploughed, and well laid over, so that the roots of the grasses may be buried and destroyed; for it frequently happens that crops of wheat, after clover and rye-grass, are greatly injured by inattention to the ploughing process. In short, sowing wheat after clover may be considered as the most hazardous way in which that grain can be cultivated.

The manures best calculated for wheat, are now generally allowed to be animal matters and lime.

It is certain according to Sir H. Davy, Chaptal, &c., that wheat will not thrive on any soil that does not contain lime. Professor Thaer says it absorbs more nourishment from the soil than any of the corn tribe; and he calculates (hypothetically, as he allows) that for every 100 parts of nutriment in a soil sown with this grain, forty will be carried off by the crop. (*Principes Raisonnés*, tom. iv. art. Froment). At the same time too much manure on land in good tilth is very apt to cause the crop to lodge; and hence some people think it improper to dung rich clays or loams when fallowed, and choose rather to reserve that restorative till the succeeding season, when they are prepared for a crop of drilled beans. Delaying the manuring process for a year is attended with many advantages; because good land, fully wrought, contains such a principle of action within itself, as often causes the first wheat crop to be lodged before it is filled; under which circumstance, the produce is diminished both in quantity and quality. This delay in manuring is, however, attended with disadvantages; because, when dung is kept back till the end of autumn or beginning of winter, to be laid on the stubbles, the weather is often so wet that it cannot be carted on without subjecting the land to injury from poaching, whilst the labor in laying it on is also increased. On thin clays, or even upon soils of the other description not in high condition, there can be no doubt but that the end of summer, and upon summer fallow, is the most proper time for manuring them, though it will be found that an improvident expenditure of dung, on such occasions, ought always to be steadily avoided. Where manure is abundant, wheat alternating with a green crop, or indeed any corn crop and a green crop may be grown alternately for any length of time. (*Farm. Mag.* vol. xxiii. p. 298).

Wheat is sown as far north as Petersburg and in Sweden, and will endure a great deal of cold during winter, if sown in a dry or well drained soil. Moderately moist weather before the flowering season, and after the grain is set or formed, is favorable; but continued heavy rains after the flowering season produces the smut. The dry frosty winds of February and March, and even April in some districts, are more injurious to the wheats of Britain than any other weather. Hoar frosts, when the plant is in the ear, produce blights; and mildews often result from or follow sultry winds and fogs. Cold, in the blossoming and ripening season in July, even unaccompanied by wind or rain, produces an inferior grain, greatly deficient in gluten; and heat the contrary. The most valuable wheat of Europe, according to Sir H. Davy, is that of Sicily; which he found to contain much more gluten than any other.

The season of sowing wheat on clays, according to the able writer in the *Ency. Brit. Supplement*, is generally the latter end of autumn; but on early turnip soils it is sown after clover or turnips, at almost every period from the beginning of September till the middle of March; but the far greater part is sown in September and October. For summer wheat, in the southern

districts, May is sufficiently early, but in the north the last fortnight of April is thought a more eligible seed-time. In the cultivation of spring-sown winter wheat, it is of importance to use the produce of spring-sown grain as seed, as the crop of such grain ripens about a fortnight earlier than when the produce of the same wheat winter-sown is employed as spring seed. According to Brown, this process is indispensably necessary on every soil; otherwise smut, to a greater or less extent, will, in nine cases out of ten, assuredly follow. Though almost all practical farmers are agreed as to the necessity of pickling, yet they are not so unanimous as to the *modus operandi* of the process, and the article which is best calculated to answer the intended purpose. Stale urine may be considered as a safe and sure pickle; and, where it can be obtained in a sufficient quantity, is commonly resorted to. The mode of using it does not, however, seem to be agreed upon; one party contends that the grain ought to be steeped in the urine, another considers it as sufficient to sprinkle the urine upon it. Some, again, are advocates for a pickle made of salt and water, sufficiently strong to buoy up an egg, in which the grain is to be thoroughly steeped. But whatever difference of opinion there may be as to the kind of pickle that ought to be used, and the mode of using it, all admit the utility of mixing the wetted seed with hot lime, fresh slaked; and this, in one point of view, is absolutely necessary, so that the seed may be equally distributed. It may be remarked that experience justifies the utility of all these modes, provided they are attentively carried into execution. There is some danger from the first; for, if the seed steeped in urine is not immediately sown, it will infallibly lose its vegetative power. The second, viz. sprinkling the urine on the seed, seems to be the safest, if performed by an attentive hand; whilst the last may do equally well, if such a quantity of salt be incorporated with the water as to render it of sufficient strength. It may also be remarked that this last mode is oftener accompanied with smut, owing no doubt to a deficiency of strength in the pickle; whereas a single head with smut is rarely discovered when urine has been used. A mode of preparing wheat for sowing, recently adopted in the south of Scotland, is thus described:—'Take four vessels, two of them smaller than the other two, the former with wire bottoms, and of a size to contain about a bushel of wheat, the latter large enough to hold the smaller within them. Fill one of the large tubs with water, and, putting the wheat in the small one, immerse it in the water and stir and skim off the grains that float above, and renew the water as often as is necessary, till it comes off almost quite clean. Then raise the small vessel in which the wheat is contained, and repeat the process with it in the other large tub, which is to be filled with stale urine; and in the mean time wash more wheat in the water tub. When abundance of water is at hand, this operation is by no means tedious; and the wheat is much more effectually cleansed from all impurities, and freed more completely from weak and unhealthy grains and

seeds of weeds, than can be done by the winnowing machine. When thoroughly washed and skimmed, let it drain a little; then empty it on a clear floor or in the cart that is to take it to the field, and sift quick-lime upon it, turning it over and mixing it with a shovel, till it be sufficiently dry for sowing.' (Supplement, Ency. Brit. art. Agriculture).

The modes of sowing wheat are either broadcast, drilling, ribbing, or dibbling. The first mode is the most general, and the seed is for the most part covered by harrowing; but no more harrowing, Brown observes, should be given to fields that have been fallowed, than what is necessary to cover the seed, and level the surface. Ground which is to lie in a broken down state through the winter suffers severely when an excessive harrowing is given. It is a general practice in most of the southern counties, and even on opposite soils, when wheat is sown broadcast, to plough it in with a shallow furrow. This is done even after beans and on clover leys.

Drilling is also practised, and is becoming more general on lands infested with annual weeds. A machine which sows at three different intervals, according to the judgment of the farmer, of twelve, ten and a half, or nine inches, is much approved of in the northern districts. It deposits six, seven, or eight rows at once, according as it is adjusted to one or other of these intervals, and the work is done with ease and accuracy when the ridges are previously laid out of such a breadth, twelve and a half feet, as to be sown by one bout: the machine going along one side of such a ridge, and returning on the other, and its direction being guided by one of its wheels, which thus always runs in the open furrow between the ridges. If the ten and a half inch interval be adopted, and it is the most common one in that country, the machine sows seven rows at once, or fourteen rows on a ridge of twelve feet and a half. But the space between the rows varies in some parts still more than this machine admits of; it ought not, however, to be so narrow as to prevent hand hoeing, even after the crop has made considerable progress in growth; and it cannot advantageously be so wide as to admit the use of any effective horse-hoe.

Ribbing is a mode of sowing in some places, by which a drill machine is dispensed with. The seed is scattered with the hand in the usual broadcast manner, but, as it necessarily falls for the most part in the furrows between the ribs, the crop rises in straight parallel rows, as if it had been sown by a drill machine: after sowing the ribs are levelled by harrowing across. This plan has nearly all the advantages of drilling in so far as regards exposure to the rays of the sun, and the circulation of air among the plants; but, as some plants must always rise between the rows, it is not quite so proper when horse-hoeing is required.

Of dibbling Mr. Loudon says, notwithstanding the advantages of saving seed, as well as some others which are generally reckoned undeniable, it is asserted by some very judicious farmers that dibbling of wheat on the whole is not really a profitable practice. It is parti-

cularly said to be productive of weeds unless dibbled very thick: which indeed may probably be the case, as the weeds are thus allowed a greater space to vegetate in. Marshal is of opinion that the dibbling of wheat appears to be peculiarly adapted to deep rich soils, on which three or four pecks dibbled early may spread sufficiently for a full crop; whereas light, weak, shallow soils, which have lain two or three years, and have become grassy, require an additional quantity of seed, and consequently an addition of labor, otherwise the plants are not able to reach each other, and the grasses of course find their way up between them, by which means the crop is injured and the soil rendered foul. If a single grain of good size and sound could be dropt in each hole, and no more, there might be an advantage in dibbling where it could be accomplished at a moderate rate; but where two or three grains are put in each hole, and often six or eight, the source of profit is diminished or destroyed by twofold means; first, by using too much seed; and, secondly, because three or four grains springing out of one hole will not make such a strong plant or stool as one sound grain. The only way in which we can conceive dibbling likely to answer is by the use of a machine such as that invented by Plunkett, but which never came into use. To attempt dibbling either wheat or beans by hand, on a large scale, we consider as quite unsuitable for the present improved state of agriculture.

When wheat is sown broad-cast, the subsequent culture is confined to harrowing, rolling, and hand-hoeing: and, as grass seeds are frequently sown in spring on winter-sown wheat, the harrows and roller are employed to loosen the soil, and cover the seeds, operations to a certain extent found beneficial to the wheat crop itself, and sometimes performed when grass seeds are not to be sown. One or two courses of harrowing penetrate the crust which is formed on tenacious soils, and operate like hand-hoeing in raising a fresh mould to the stems of the young plants. Rolling in spring ought never to be omitted on dry porous soils.

When drilling, ribbing, or dibbling has been adopted, the intervals are hoed or stirred either by hand hoes, common or pronged, by horse hoes, or drill harrows. In general the drill used at sowing will be the best to use for hoeing or stirring. Or, if a single drill should have been used, the expanding horse hoe, or Blakie's invented horse-hoe, may be successfully adopted. The operation of hoeing or stirring should generally be performed in March. Weeding the rows should not be delayed later than the end of May.

Where wheats rise uneven, or too thin in some places and too thick in others, the practice of transplanting has been practised in Essex and Norfolk, at the end of March. Blanks are sometimes filled up by sowing summer wheat, dibbling beans, &c., but these are obviously bad modes; a better is either to stir the soil well, and encourage the tillering of the plants, or to stir the soil and then transplant.

Substances both solid and fluid have been made use of for top dressing wheat where the land or growth is poor; the first consist chiefly

of birds' dung brought into a powdery state, bone-dust, soot, peat-ashes, and saline matters; the latter are principally the drainings of dung-hills, &c. The former should be thinly and evenly sown over the crop, as early in the spring as horses can be admitted on the land; and a roller may then be passed over the crop. Where the latter substances are made use of, care should always be taken that the plants be not injured by having too large a quantity applied. The season for performing this business is the beginning of February. When wheat appears too forward, it is sometimes eat down in April, with sheep or even with horses, but this requires great judgment.

The best farmers agree that wheat ought to be cut before it become dead ripe. In ascertaining the proper state, Brown observes, it is necessary to discriminate betwixt the ripeness of the straw, and the ripeness of the grain; for in some seasons the straw dries upwards; under which circumstance, a field to the eye may appear to be completely fit for the sickle, when in reality the grain is imperfectly consolidated; and perhaps not much removed from a milky state. Though it is obvious that, under such circumstances, no further benefit can be conveyed from the root, and that nourishment is withheld the moment that the roots die; yet it does not follow that grain so circumstanced should be immediately cut; because, after that operation is performed, it is in a great measure necessarily deprived of every benefit from the sun and air, both of which have greater influence in bringing it to maturity, so long as it remains on foot, than when cut down, whether laid on the ground, or bound up in sheaves. The state of the weather at the time also deserves notice; for, in moist or even variable weather, every kind of grain, when cut prematurely, is more exposed to damage than when completely ripened. All these things will be studied by the skilful husbandman, who will also take into consideration the dangers which may follow, were he to permit his wheat crop to remain uncut till completely ripened. The danger from wind will not be lost sight of, especially if the season of the equinox approaches; even the quantity dropped in the field, and in the stack-yard, when wheat is over ripe, is an object of consideration. The mode of reaping is almost universally by the sickle. In a few days of good weather the crop is ready for the barn or stack-yard, where it is built either in oblong or circular stacks, sometimes on frames supported with pillars to prevent the access of vermin, and to secure the bottom from dampness; as soon afterwards as possible the stacks should be neatly thatched. When the harvest weather is so wet as to render it difficult to prevent the stacks from heating, it has been the practice to make funnels through them, a large central one, and small lateral ones to communicate. Corn keeps better in a well-built stack than in any barn.

Wheat is now the cleanest threshed grain; because the length of the straw allows it to be properly beaten out before it passes the machine, which sometimes is not the case with short oats and barley. If horses are used as the impelling

power, thin feeding is necessary, otherwise the animals may be injured; but where wind or water is employed, the business of threshing is executed speedily, completely, and economically.—*Brown*. In performing the operation one man feeds the grain in the straw into the machine, and is assisted by two half-grown lads, or young women, one of whom pitches or carries the sheaves from the boy close to the threshing stage, while the other opens the bands of every sheaf, and lays the sheaves successively on a small table close by the feeder, who spreads them evenly on the feeding stage, that they may be drawn in successively by the fluted rollers, to undergo the operation of threshing. In the opposite end of the barn or straw-house, into which the rakes or shakers deliver the clean threshed straw, one man forks up the straw from the floor to the straw-mow, and two lads or young women build it, and tread it down. In a threshing machine, worked by water or wind, this is the whole expense of hand-labor in the threshing part of the operation, and, as a powerful machine can easily thresh from 200 to 300 bushels of grain in a working day of nine hours, the expense is exceedingly small indeed. Assuming 250 bushels as an average of the work of these people for one day, and their wages to be nine shillings, the expense does not amount to one halfpenny for each bushel of grain. Even reducing the quantity of grain threshed to 150 bushels, the easy work of a good machine of inferior size and power, the expense does not exceed three farthings the bushel. But the whole of this must not be charged against the threshing only, the grain being half dressed at the same time, by passing through one winnowing-machine, which is always attached to a complete threshing-mill; and where a second can be conveniently connected with it, as is commonly the case if the mill be of considerable power, the corn comes down nearly ready for market. So that the threshing, dressing, and building of the straw, with the use of a powerful water-mill, will scarcely cost more than dressing alone when the flail is employed; after every reasonable allowance for the interest of money, and the tear and wear of the machine. When grain is threshed with a machine worked by horses, the expenses considerably enhanced. One capable of effecting the larger quantity of work, already calculated on, will require eight good horses, and a man to drive them, who may perhaps require the aid of a boy. The value of the work of eight horses for a day cannot be less than forty shillings, and the wages of the driver may be called two shillings and sixpence. Hence the total expense of threshing 250 bushels will amount to £2 2s. 6d.: or about two-pence per bushel, when the wages of the attendants are added; still leaving a considerable difference in favor of threshing by the machine, in preference to the flail. Were it even ascertained that the expense of threshing by horses and by the flail is nearly the same, horse-mills are to be recommended on other accounts; such as better threshing, expedition, little risk of pilfering, &c.

Professor Thær says, that in general wheat gives double the weight of straw than it does of grain; on elevated ground something less; and

on low grounds something more. An acre, therefore, which produces four quarters of wheat, weighing sixty-one pounds per bushel, ought to produce about 177½ cwt. of straw; two loads, or twenty-two hundred weight and a half, however, is only reckoned a tolerable crop in this country. The yield of grain in some seasons has been under twenty; while in others it is upwards of thirty bushels the acre, the soil and culture being in every respect the same. The average produce of Britain has been estimated at three, three and a half, and four quarters; and one of the largest crops ever heard of at ten quarters, and the least at one quarter and a half. The proportion which the corn bears to the straw, in Middlesex, is eleven bushels and a half to a load of thirty-six truss of thirty-six pounds each, or eleven hundred weight and a half.

2. RYE is a bread corn of Germany and Russia. In Britain it is now very little grown: being no longer a bread corn, and therefore of less value to the farmer than barley, oats, or pease. The varieties are not above two, winter and spring rye; but there is so little difference between them that spring rye sown along with winter rye can hardly be distinguished from it.

Rye, as we have said, will grow in dry sandy soils; on the whole it may be considered as preferring sands to clays. The preparation of the soil should be similar to that for wheat. According to professor Thær, rye abstracts thirty parts in 100 of the nutriment contained on the soil in which it is grown. The after culture, harvesting, and threshing, are also the same as on wheat.

3. OATS.—As winter ploughing enters into the culture of oats, we must remind the reader of the effect of frost upon tilled land. Providence has neglected no region intended for the habitation of men. If in warm climates the soil be meliorated by the sun, it is no less meliorated by frost in cold climates. Frost acts upon water, by expanding it into a larger space; but has no effect upon dry earth, or sand. Upon wet earth, however, it acts most vigorously; and expands the moisture; which, requiring more space, puts every particle of earth out of its place, and separates them from each other. In that view, frost may be considered as a plough superior to any that can be made by the hand of man: its action reaches the minutest particles; and, by dividing and separating them, it renders the soil loose and friable. This operation is most remarkable in tilled land, which gives free access to frost.

The common method is to sow oats on new-ploughed land in March, as soon as the ground is tolerably dry. If it continues wet all March, it is too late to venture them after. It is much better to summer-fallow, and to sow wheat in the autumn. But the preferable method, especially in clay soil, is to turn over the field after harvest, and to lay it open to the influences of frost and air, which lessen the tenacity of clay, and reduce it to a free mould. The surface soil by this means is finely mellowed for reception of the seed; and it would be a pity to bury it by a second ploughing before sowing. In general, the bulk of clay-soils are rich; and skilful ploughing, without dung, will probably give

a better crop than unskilful ploughing with dung.

We must add a word respecting clays which are artificial, whether left by the sea, or swept down from higher grounds by rain. The method commonly used of dressing, which has been called *carse-clay* for oats, is, not to stir it till the ground be dry in spring, which seldom happens before the 1st of March, and the seed is sown as soon after as the ground is sufficiently dry for its reception. Frost has a stronger effect on such clays than on natural clay. And, if the field be laid open before winter, it is rendered so loose by frost as to be soon drenched in water. The particles at the same time are so small as that the first drought in spring makes the surface cake or crust. The difficulty of reducing this crust into mould for covering the oat-seed, has led farmers to delay ploughing till March. But we are taught by experience that this soil, ploughed before winter, is sooner dry than when the ploughing is delayed till spring; and, as early sowing is a great advantage, the objection of the superficial crusting is easily removed by the first harrow above described, which will produce abundance of mould for covering the seed. The ploughing before winter not only procures early sowing, but has another advantage; the surface soil that had been mellowed during winter by the sun, frost, and wind, is kept above.

The dressing a loamy soil for oats differs little from dressing a clay soil, except that, being less hurt by rain, it requires not high ridges, and therefore ought to be ploughed crown and furrow alternately. Where there are both clay and loam in a farm, it is obvious from what is said above, that the ploughing of the clay after harvest ought first to be despatched. If both cannot be overtaken that season, the loam may be delayed till the spring with less hurt.—Next of a gravelly soil; which is the reverse of clay, as it never suffers but from want of moisture. Such a soil ought to have no ridges; but be ploughed circularly from the centre to the circumference, or from the circumference to the centre. It ought to be tilled after harvest: and the first dry weather in spring ought to be laid hold of to sow, harrow, and roll; which will preserve it in sap.

The culture of oats is simple. That grain is probably a native of Britain: it grows on the worst soil with very little preparation. Before turnips were introduced, it was always the first crop upon land broken up from the state of nature. Upon such land, it may be a good method to build upon the crown of every ridge, in the form of a wall, all the surface earth, one sod above another, as in a fold for sheep. After standing in this form all summer and winter, let the walls be thrown down, and the ground prepared for oats. This will secure one or two good crops; after which the land may be dunged for a crop of barley and grass seeds. This method may answer in a farm where manure is scarce.

In England oats are generally cut down with the scythe, and carried loose to the barn or stack; but in the northern districts, and where threshing machines are used, they are tied into sheaves if mown, but, for the most part, reaped with the

sickle, in order in both cases to facilitate the process of threshing. They are ready for the scythe or sickle when the grain becomes hard, and the straw yellowish. Like wheat they should generally be cut before they are dead ripe, to prevent the shedding of the grain, and to increase the value of the straw as fodder. They rarely get much damage when under the harvest process, except from high winds, or from shedding, when opened out after being thoroughly wetted. The early varieties are much more liable to these losses than the late ones; because the grain parts more easily from the straw, an evil to which the best of grain is at all times subject. Early oats, however, may be cut a little quick, which, to a certain extent, lessens the danger to which they are exposed from high winds; and, if the sheaves be made small, the danger from shedding after rains is considerably lessened, because they are thus sooner ready for the stack. Under every management, however, a greater quantity of early oats will be lost during the harvest process than of the late ones, because the latter adhere firmly to the straw, and consequently do not drop so easily as the former.—Brown.

In Sweden, in most seasons, the oat crop is dried on frames or poles, and in Russia, not only oats, but barley and rye are kiln-dried in the straw. The produce of oats is generally considered greater and of better quality in the northern than in the southern counties; and the reasons are obviously that, in the former, more attention is paid to their culture, and the climate is more favorable for the maturation of the grain. Ten quarters an acre is reckoned a good crop in the north, but the produce is often twelve and thirteen quarters, and the straw from two to three and a half loads per acre. In meal the produce is eight lbs. for fourteen lbs. of corn. Sir H. Davy found 100 parts of oats afforded fifty-nine parts of starch, six of gluten, and two of saccharine.

4. BARLEY is a culmiferous plant that requires a mellow soil. In England it ranks next in value as a crop to wheat. Extraordinary care is requisite where it is to be sown in clay. The land ought to be stirred immediately after the crop is removed, which lays it open to be mellowed with the frost and air. In that view the sort of ploughing has been introduced termed *ribbing*, by which the greatest quantity of surface possible is exposed to the air. The obvious objection to this method is, that half of the ridge is left unmoved: and, to obviate it, the following method is offered, which moves the whole soil, and at the same time exposes the same quantity of surface to the frost and air. As soon as the former crop is off the field, let the ridges be gathered with as deep a furrow as the soil will admit, beginning at the crown and ending at the furrows. This ploughing loosens the whole soil, giving free access to the air and frost. Soon after, begin a second ploughing: let the field be divided by parallel lines cross the ridges, with intervals of thirty feet or so. Plough once round an interval, beginning at the edges, and turning the earth toward the middle of the interval; which covers a foot or so of the ground

formerly ploughed. Within that foot plough another round similar to the former; and after that other rounds, till the whole interval be finished, ending at the middle. Instead of beginning at the edges, and ploughing toward the middle, begin at the middle and plough toward the edges. Plough the other intervals in the same manner. As the furrows of the ridges will thus be pretty much filled up, let them be cleared and water-furrowed without delay. By this method, the field will be left ridged up for winter. In this form the field is kept perfectly dry; for, beside the capital furrows that separate the ridges, every ridge has a number of cross furrows that carry the rain instantly to the capital furrows. In hanging grounds retentive of moisture, the parallel lines ought not to be perpendicular to the furrows of the ridges, but to be directed a little downward, to carry rain water the more hastily to these furrows. If the ground be clean, it may lie in that state winter and spring, till the time of seed-furrowing. If weeds rise, they must be destroyed by ploughing, or braking, or both; for there cannot be worse husbandry than to put seed into dirty ground.

This method resembles common ribbing in appearance, but is very different in reality. As the common ribbing is not preceded by a gathering furrow, the half of the field is left untilled, compact as when the former crop was removed, impervious in a great measure to air or frost. The common ribbing at the same time lodges the rain-water on every ridge, preventing it from descending to the furrows, which is hurtful in all soils, and destructive in a clay soil. The stitching here described, or ribbing, prevents these noxious effects. By the two ploughings the whole soil is opened, admitting freely air and frost; and the multitude of furrows lays the surface perfectly dry. When it is proper to sow the seed, all is laid flat with the brake, and the seed-furrow which succeeds is so shallow as to bury little or none of the surface earth: whereas the stirring for barley, being done with the deepest furrow, buries all the surface-soil that was mellowed by the frost and air. This method is also less expensive; for after common ribbing, which keeps in the rain water, the ground is commonly so soured as to make the stirring a laborious work.

Barley is less valuable when it does not ripen equally. That which comes up speedily in a dusky soil, gains a great advantage over seed-weeds. Therefore, first take out about one-third of the contents of the sacks of seed barley, to allow for the swelling of the grain. Lay the sacks with the grain to steep in clean water; let it lie covered with it for at least twenty-four hours. When the ground is dry, and no likelihood of rain for ten days, it is better to lie thirty-six hours. Sow the grain wet from steeping, without any powdered quicklime, which would suck up part of its useful moisture. The seed will scatter well, but the sower must put in one-quarter, or one-third more seed in bulk than usual of dry grain, as the grain is swelled in that proportion: harrow it in as quickly as possible after it is sown: and give it the benefit of a fresh furrow. It will rise in a fortnight at farthest.

The following experiment by a correspondent of the Bath Society is considered as interesting:—The last spring, 1783, being remarkably dry, I soaked my seed barley in the black water taken from a reservoir which constantly receives the draining of my dung heap and stables. As the light corn floated on the top, I skimmed it off, and let the rest stand twenty-four hours. On taking it from the water, I mixed the seed grain with a sufficient quantity of sifted wood ashes, to make it spread regularly, and sowed three fields with it. I began sowing the 16th and finished the 23rd of April. The produce was sixty bushels per acre, of good clean barley, without any small or green corn, or weeds at harvest. No person in this county had better grain, I sowed also several other fields with the same seed dry, and without any preparation; but the crop, like those of my neighbours, was very poor; not more than twenty bushels per acre, and much mixed with green corn and weeds. I also sowed some of the seed dry one ridge in each of my former fields, but the produce was very poor in comparison of the other parts of the field.

Where the land is in good order, and free of weeds, April is the month for sowing barley. Every day is proper. The dressing loamy soil and light soil for barley, is the same with that described; only that to plough dry is not so essential as in dressing clay soil. Loam or sand may be stirred a little moist: better, however, delay a week or two, than to stir a loam when moist. Clay must never be ploughed moist, even though the season should escape altogether. But this will seldom be necessary; for not in one year of twenty will it happen, but that clay is dry enough for ploughing some time in May. Frost may correct clay ploughed wet after harvest; but, ploughed wet in the spring, it unites into a hard mass, not to be dissolved but by very hard labor.

On the cultivation of this grain we have the following observations by a Norfolk farmer: 'The best soil is that which is dry and healthy, rather light than stiff, but yet of sufficient strength to retain moisture. On this kind of land the grain is always the best bodied and colored, and has the thinnest rind. These qualities recommend it most to the maltster. If the land is poor, it should be dry and warm; and when so it will often bear better grain than richer land in a cold and wet situation. In the choice of seed, the best is of a pale lively color and brightish cast, without any deep redness or black tinge at the tail. If the rind be a little shrivelled, it is the better; for that slight shrivelling proves it to have a thin skin, and to have sweated in the mow. The necessity of a change of seed by not sowing two years together what grew on the same soil, is not in any part of husbandry more evident than in the culture of this grain, which, if not frequently changed, will grow coarser every year. Liming has been found prejudicial. Sprinkling a little soot with the water in which it is steeped has been of great service, as it secures the seed from insects. In a very dry seed time, barley that has been wetted for malting, and begins to sprout, will come up sooner, and produce a good crop. On lands

tolerably manured,' adds this writer, 'I sowed clover with my barley, which I reaped at harvest; and fed the clover all the following winter, and from spring to July, when I fallowed it till the following spring, and then sowed it with barley and clover as before. Repeating this method every year, I had very large crops; but would not recommend this practice on poor light land. We sow on our lightest lands in April, on our moist lands in May; finding that those lands which are the most subject to weeds produce the best crops when sown late. The common method is to sow the barley seed broad-cast at two sowings, the first harrowed in once, the second twice; the usual allowance from three to four bushels per acre. But if farmers could be prevailed on to alter this practice, they would soon find their account in it. Were only half the quantity sown equally, the produce would be greater, and the corn less liable to lodge; for, when corn stands very close, the stalks are drawn up weak, and on that account are less capable of resisting the force of winds, or supporting themselves in heavy rains. From our great success in setting and drilling wheat, some of our farmers tried these methods with barley; but did not find it answer their expectations, except on very rich land. I have myself had eighty stalks on one root of barley, which all produced good and long ears, and the grain was better than any other; but the method is too expensive for general practice. In poor land, sow thin, or your crop will be worth little. Farmers who do not reason on the matter will be of a different opinion; but the fact is indisputable.'

When the barley is sowed, and harrowed in, he advises that the land be rolled after the first shower of rain to break the clods. This will close the earth about the roots, which will be a great advantage to it in dry weather. When the barley has been up three or four weeks, roll it again with a heavy roller, which will prevent the sun and air from penetrating the ground to the injury of the roots. This rolling, before it branches out, will also cause it to tiller into a greater number of stalks; so that if the plants be thin, the ground will be thereby filled, and the stalks strengthened. If the blade grows too rank, as it sometimes will in a warm wet spring, mowing is a much better method than feeding it down with sheep; because the scythe takes off only the rank tops, but the sheep, being fond of the sweet end of the stalk next the root, will often bite so close as to injure its future growth.

The preparation of the soil for barley is often by a turnip fallow; sometimes it is taken after pease and beans, but rarely by good farmers, either after wheat or oats. When sown after turnips, it is taken with one furrow, which is given as fast as the turnips are consumed, the ground thus receiving much benefit from spring frosts. But often two or more furrows are necessary for the fields last consumed; because, when a spring drought sets in, the surface, from being poached by the removal or consumption of the crop, gets so hardened as to render a greater quantity of ploughing, harrowing, and rolling necessary, than would otherwise be called for. When sown after beans and pease, one

winter and one spring ploughing are usually bestowed; but, when after wheat or oats, three ploughings are necessary, so that the ground may be put in proper condition. These operations are very ticklish in a wet and backward season, and rarely in that case is the grower paid for the expense of his labor. Where land is in such a situation as to require three ploughings before it can be seeded with barley, it is better to summer fallow it at once, than to run the risks which seldom fail to accompany a quantity of spring labor. If the weather be dry, moisture is lost during the different processes, and an imperfect germination necessarily follows: if it be wet, the benefit of ploughing is lost, and all the evils of a wet seed-time are sustained by the future crop. Browne.—After turnips, eaten on the ground by sheep, the land, being consolidated by their treading, sometimes receives two ploughings; but, if only one, it should be well harrowed and rolled; and it is often finished by harrowing after the roller, especially if grass-seeds be sown, which are covered by this last harrowing. Barley is sometimes sown on the first ploughing, and covered by a second shallow ploughing. As it is found of great importance, with a view to speedy and equal vegetation, that the ground should be fresh and moist, barley is generally sown upon what is termed hot-fur, that is, as soon as possible after it is turned up by the plough. Manure can seldom be applied with advantage. The climate most favorable to barley is a warm and dry one. There are instances of a crop being sown and ripened without having enjoyed a single shower of rain: but gentle showers from the time it is sown till it begins to shoot into the ear are favorable; while heavy rains at any period, and especially immediately after sowing, are highly injurious.

No grain requires such careful *harvesting*. It should be cut at a time when the grain is soft, and the straw retains a great proportion of its natural juices. It is generally cut down in England with the cradle scythe, and either tied up or carted home loose after lying in the swarth some days to dry. It is not apt to shed; but in wet weather it will be apt to spout or grow musty; and therefore every fair day after rain it should be shook up and turned; but be careful never to house it till thoroughly dry, lest it mow-burn, which will make it malt worse than if it had spired in the field. Lisle says, that poor thin barley should be cut a little sooner than if the same plants were strong and vigorous; as the straw, when the plants are full ripe, in such cases will not stand against the scythe. In this situation, barley in particular should lie in swarth till it is thoroughly dry. Some of his barley, which lay out in swarth five or six days in very fine weather, though both blighted and edge-grown, grew plump, and acquired very nearly as good a color as the best. He reckons short scythes the best for mowing lodged or crumpled corn, because they miss the fewest plants; and observes that a bow upon the scythe, which carries away the swarth before it, is preferable to a cradle, the fingers of which would be pulled to pieces by the entangled corn, in drawing back the scythe. In Scotland and Ireland it is generally reaped with the sickle. Make an

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opening in the stack from top to bottom, by placing a large bundle of straw in the centre of the stack, when it commences, and in proportion as it rises, the straw is drawn upwards, leaving a hollow behind; which, if one or two openings are left in the side of the stack near the bottom, insures a complete circulation of air. Threshing machines for barley are furnished with what is called a hummeling machine, and, where this is wanting, it is customary to put the grain, accompanied with a portion of threshed straw, a second time through the machine. Where barley has been mown, the whole of the straw requires to be twice threshed, independently of the necessity of getting rid of the ears. The produce of barley, taking the average of England and the south of Scotland, Donaldson considers, might be rated at thirty-two bushels; but when Wales and the north of Scotland are included, where, owing to the imperfect modes of culture still practised, the crops are very indifferent, the general average will not probably exceed twenty-eight bushels the acre. Middleton states it as varying in England from fifteen to seventy-five bushels per acre. The average produce of the county of Middlesex is about four quarters of corn and two loads of straw per acre.

5. **BUCK WHEAT** delights in a mellow sandy soil; but succeeds well in any dry loose healthy land, and moderately so in a free loamy stone brash. A stiff clay is its aversion, and it is entirely labor lost to sow it in wet poachy ground. The proper season for sowing is from the last week of May or the beginning of June. It has been sown, however, so early as the beginning of April, and so late as the 22nd of July, by way of experiment; but the latter was rather too great an extreme, and the former was in danger from frost. In an experiment, upon a small piece of ground, the grain of two different crops was brought to maturity in summer 1787. After spring feedings, a crop of turnip-rooted cabbage, or vetches, there will be sufficient time to sow the land with buck-wheat. In hot dry summers, a crop of vetches might even be mown for hay early enough to introduce a crop of this grain after it. It will grow on the poorest soil, and produce a crop in the course of three or four months. It was cultivated so early as Gerard's time, 1597, to be ploughed in as manure; but at present, from its inferior value as a grain, and its yielding very little haulm for fodder or manure, it is seldom grown but by gentlemen in plantations, to encourage game. Arthur Young recommends farmers in general to try this crop. It has numerous excellencies, he says, perhaps as many to good farmers as any other grain or pulse in use. It is of an enriching nature, having the quality of preparing for wheat, or any other crop. One bushel sows an acre of land well, which is but a fourth of the expense of seed-barley. It should not be sown till the end of May. This is important; for it gives time in the spring to kill all the seed-weeds in the ground, and brings no disagreeable necessity from bad weather in March or April, to sow barley, &c., so late as to hazard the crop. It is as valuable as barley, and is the best of all crops for sowing grass seeds with, giving them the

same shelter as barley or oats without robbing.

Buck-wheat is mown and harvested in the manner of barley. After it is mown, it must lie several days, till the stalks be withered, before it be housed. It is in no danger of the seeds falling, nor does it suffer much by wet. From its great succulency it is liable to heat, on which account it is better to put it in small stacks of five or six loads each, than in either a large one or a barn. The produce may be stated upon the average at between three and four quarters per acre; it would be considerably more did all the grains ripen together, but that never appears to be the case. Its use in this country is almost entirely for feeding poultry, pigeons, and swine. It may also be given to horses, which are said to thrive well on it; but the author of the New Farmer's Calendar, says, he thinks he has seen it produce a stupefying effect. We should add that it has been used in the distillery in England, and is a good deal used in that way, and as horse corn on the continent. Young says, a bushel goes farther than two bushels of oats, and, mixed with at least four times as much bran, will be full feed for any horse a week. Four bushels of the meal, put up at four hundred weight will fatten a hog of sixteen or twenty stone in three weeks, giving him afterwards three bushels of Indian corn or hog-pease, broken in a mill, with plenty of water. Eight bushels of buck-wheat meal will go as far as twelve bushels of barley meal. The meal is made into thin cakes called crumpits in Italy, and even in some parts of England; and it is supposed to be nutritious, and not apt to turn acid upon the stomach.

6. **BEANS.**—The most proper soil for beans is a deep and moist clay. There has been introduced into Scotland a method of sowing beans with a drill-plough, and horse-hoeing the intervals; which, beside affording a good crop, is a dressing to the ground. In the common way, as this grain is early sown, the ground intended for it should be ploughed before winter, to give access to the frost and air—beneficial in all soils, and necessary in a clay soil. Take the first opportunity after January, when the ground is dry, to loosen the soil with the harrow, till a mould be brought upon it. Then sow the seed and cover it equally. Beans ought to be laid deep in the ground, not less than six inches. In clay soil, the common harrows are altogether insufficient. The soil which has rested long after ploughing is rendered compact and solid; the common harrows skim the surface: the seed is not covered; and the first hearty shower of rain lays it above ground. If the ground ploughed before winter happen, by a superfluity of moisture, to cake, the first harrow going along the ridges, and crossing them, will loosen the surface, and give access to the air for drying. As soon as the ground is dry, sow without delay. If rain happen in the interim, wait till a dry day or two come. Carse clay, ploughed before winter, seldom fails to cake. Upon that account, a second ploughing is necessary before sowing; which ought to be performed with an ebb furrow, to keep the frost mould as near the surface as possible. To cover the seed with the plough is expressed by the phrase to sow under

furrow. The clods raised in this ploughing are a sort of shelter to the young plants in the chilly spring months. The above method will answer for loam. As for a sandy or gravelly soil, it is altogether improper for beans.

Though we cannot approve the horse-hoeing of beans, with the intervals that are commonly allotted for turnip, yet we would strongly recommend the drilling them at the distance of ten or twelve inches, and keeping the intervals clean of weeds. This may be done by hand-hoeing, at the same time laying fresh soil to the roots of the plants. But as this is expensive, and hands are not always to be got, a narrow plough, drawn by a single horse, might be used, with a mould-board on each side to scatter the earth upon the roots of the plants. This is a cheap and expeditious method; it keeps the ground clean, and nourishes the plants with fresh soil. As beans delight in a moist soil, and have no end of growing in a moist season, they cover the ground totally when sown broad-cast, keep in the dew, and exclude the sun and air: the plants grow to a great height, but carry little seed, and that little not well ripened. Hence the advantage of drilling; which gives free access to the sun and air, dries the ground, and affords plenty of ripe seed.

Brown, a very superior bean grower, gives the following directions:—The furrow ought to be given early in winter, and as deep as possible, that the earth may be sufficiently loosened, and room afforded for the roots of the plant to search for the requisite nourishment. The first furrow is usually given across the field, which is the best method when only one spring furrow is intended; but, as it is now ascertained that two spring furrows are highly advantageous, perhaps the one in winter ought to be given in length, which lays the ground in a better situation for resisting the rains, and renders it sooner dry in spring, than can be the case when ploughed across. On the supposition that three furrows are to be given, one in winter, and two in spring, the following is the most eligible preparation. The land being ploughed in length, as early in winter as is practicable, and the cross gutter and headland furrows sufficiently digged out, take the second furrow across the first as soon as the ground is dry enough in spring to undergo the operation; water-furrow it immediately, and dig again the cross gutter and headland furrows, otherwise the benefit of the second furrow may be lost. This being done, leave the field for some days, till it is sufficiently dry, when a cast of the harrow becomes necessary, so that the surface may be levelled. Then enter with the ploughs, and form the drills. Manure is frequently applied, especially if the bean crop succeed wheat.—Treatise on Rural Affairs. According to Brown, the best way is to apply the dung on the stubble before the winter furrow is given, which greatly facilitates the after process. Used in this way, a fore stock must be in hand; but, where the farmer is not so well provided, spring dunging becomes necessary, though evidently of less advantage. At that season it may either be put into the drills before the seed is sown, or spread upon the surface and ploughed down, according to the

nature of the drilling process which is meant to be adopted. Land dunged to beans, if duly hoed, is always in high order for carrying a crop of wheat in succession. Perhaps better wheat, both in respect of quantity and quality, may be cultivated in this way, than in any other mode of sowing.

In one mode of drilling beans, the lands or ridges are divided by the plough into ridgelets, or one bout stitches, at intervals of about twenty-seven inches. If dung is to be applied, the seed ought to be first deposited, as it is found inconvenient to run the drill machine afterwards. The dung may then be drawn out from the carts in small heaps, one row of heaps serving for three or five ridgelets; and it is evenly spread, and equally divided among them, in a way that will be more minutely described when treating of the culture of turnips. The ridgelets are next split out or reversed, either by means of the common plough, or one with two mould-boards, which covers both the seed and the manure in the most perfect manner. When beans are sown by the other method, in the bottom of a common furrow, the dung must be previously spread over the surface of the winter or spring ploughing. Three ploughs then start in succession, one immediately behind another, and a drill harrow either follows the third plough or is attached to it, by which the beans are sown in every third furrow, or at from twenty-four to twenty-seven inches asunder, according to the breadth of the furrow-slice. Another approved way, when dung is applied at seed time, is to spread the dung and to plough it down with a strong furrow; after this shallow furrows are drawn, into which the seed is deposited by the drill-machine. Whichever of these modes of sowing is followed, the whole field must be carefully laid dry by means of channels formed by the plough, and when necessary by the shovel; for neither then nor at any former period should water be allowed to stagnate on the land. The dibbling of beans is considered by Arthur Young as an excellent plan.

7. PEASE are of two kinds, the white and the gray: the cultivation of the latter only belongs to this place. There are two principal species of the gray kind, distinguished by their time of ripening. One ripens soon, and for that reason is termed hot seed; the other, which is slower in ripening, is termed cold seed.

Pease, a leguminous crop, is proper to intervene between two culmiferous crops; less for the profit of a pease crop, than for meliorating the ground. Pease, however, in a dry season, will produce six or seven bolls each acre; but in an ordinary season they seldom reach above two or two and a half. Hence, in a moist climate, which all the west of Britain is, red clover seems a more beneficial crop than pease; as it makes as good winter food as pease, and can be cut green thrice during summer.

A field intended for cold seed ought to be ploughed in October or November; and in February, as soon as the ground is dry, the seed ought to be sown on the winter furrow. A field intended for hot seed ought to be ploughed in March or April, immediately before sowing. But,

if infested with weeds, it ought to be also ploughed in October and November.

Pease laid a foot below the surface will vegetate; but the most approved depth is six inches in light soil, and four inches in clay soil; for which reason they ought to be sown under furrow when the ploughing is delayed till spring. Of all grains, beans excepted, they are the least in danger of being buried. Pease differ from beans in loving a dry soil and a dry season. Horse-hoeing has little effect when the plants are new sprung; and, when they are advanced, their length prevents it. Fast growing at the same time is the cause of their carrying so little seed: the seed is buried among the leaves; and the sun cannot penetrate to make it grow and ripen. The only practicable remedy to obtain grain is thin sowing; but thick sowing produces more straw, and mellows the ground more. Half a boll for an English acre may be reckoned thin sowing; three flirlots, thick sowing.

Notwithstanding what is said above, Mr. Hunter of Berwickshire, some years ago, began to sow all his pease in drills; and never failed to have great crops of pease, as well as of straw. He sowed double rows at a foot interval, and two feet and a half between the double rows, which admit horse-hoeing. By that method he had also good crops of beans on light land.

Pease and beans mixed are often sown together, in order to catch different seasons. In a moist season, the beans make a good crop; in a dry season, the pease.

The growth of plants is commonly checked by drought in the month of July, but promoted by rain in August. In July grass is parched; in August it recovers verdure. Where pease are so far advanced in the dry season that the seeds begin to form, their growth is indeed checked, but the seed continues to fill. If only in the blossom at that season, their growth is checked a little; but they become vigorous again in August, and continue growing without filling till stopped by frost. Hence it is that cold seed, which is early sown, has the best chance to produce corn; hot seed, which is late sown, has the best chance to produce straw.

The following method is practised in Norfolk, for sowing pease upon a dry light soil, immediately opened from pasture. The ground is pared with a plough extremely thin, and every sod is laid exactly on its back. In every sod a double row of holes is made. A pea dropt in every hole lodges in the flayed ground immediately below the sod, thrusts its roots horizontally, and has sufficient moisture. The most common mode of sowing pease is broad-cast; but the advantages of the row culture in the case of a crop early committed to the soil must be obvious. The best farmers, therefore, sow pease in drills either after the plough, the seed being deposited commonly in every second or third furrow, or if the land is in a pulverised state by drawing drills with a machine or by ribbing. In Norfolk and Suffolk pease are generally dibbled on the back of the furrow, sometimes one and sometimes two rows on each; but dibbling in no manner ap-

pears to us so well suited for a farmer's purpose as the drill. In Kent, where immense quantities of pease are grown both for gathering green and for selling ripe to the seedsmen, they are generally sown in rows from eighteen inches to three feet asunder, according to the kind, and well cultivated between.

The after culture is that of hoeing, either by hand or horse. Where the former method prevails, it is the general custom to have recourse to two hoeings; the first when the plants are about two or three inches in height, and again just before the period in which they come into blossom. In this way the vigorous vegetation of the young crop is secured, and a fresh supply of nourishment afforded for the setting of the pods and the filling of the pease. At the last of these operations the rows should be laid down, and the earth well placed up to them, the weeds being previously extirpated by hand labor. It has been stated that in some parts of Kent, where this sort of crop is much grown, it is the practice, when the distance of the rows is sufficiently great, to prevent the vegetation of weeds, and forward the growth of pea crops, by occasionally horse-hoeing, and the use of the brake-harrow, the mould being laid up to the roots of the plants at the last operation by fixing a piece of wood to the harrow. This should, however, only be laid up on one side, the pease being placed up to that which is most exposed to the sun. When pea crops become ripe they wither and turn brown in the haulm or straw, and the pods open. In this state they should be cut as soon as possible, in order that there may be the least loss sustained by their shedding. In early crops the haulm is hooked up into loose open heaps, which, as soon as they are perfectly dry, are removed from the ground and put into stacks for the purpose of being converted to the food of animals, on which they are said to thrive nearly as well as on hay. When intended for horses, the best method would seem to be that of having them cut into chaff and mixed with their other food.

Young says that forward white pease will be fit to cut early in July; if the crop is very great they must be hooked; but if small, or only middling, mowing will be sufficient. The stalks and leaves of pease being very succulent, they should be taken good care of in wet weather: the tufts, called wads or heaps, should be turned, or they will receive damage. White pease should always be perfectly dry before they are housed, or they will sell but indifferently, as the brightness and plumpness of the grain are considered at market more than with hog-pease. The straw also, if well harvested, is very good fodder for all sorts of cattle and for sheep; but if it receives much wet, or if the heaps are not turned, it can be used only to litter the farmyard with. It is the practice in some districts to remove the haulm as soon as it has been cut up by hooks constructed with sharp edges for the purpose, to every fifth ridge, or even into an adjoining grass field, in order that it may be the better cured for use as cattle food, and at the same time allow of the land being immediately prepared for the

succeeding crop. When wet weather happens, whilst the pease lie in wads, it occasions a considerable loss, many of them being shed in the field, and of those that remain a great part will be so considerably injured as to render the sample of little value. This inability in pease to resist a wet harvest, together with the great uncertainty throughout their growth, and the frequent inadequate return in proportion to the length of haulm, has discouraged many farmers from sowing so large a portion of this pulse as of other grain; though on light lands, which are in tolerable heart, the profit, in a good year, is far from inconsiderable.

The threshing of pease requires little labor. Where the haulm is wished to be preserved entire it is best done by hand; as the threshing machine is apt to reduce it to chaff. But where the fodder of pease is to be given immediately to horses on the spot, the breaking it is no disadvantage. The produce in ripened seeds is supposed by some to be from three and a half to four quarters the acre; others, as Donaldson, imagine the average of any two crops together not more than about twelve bushels; and that on the whole, if the value of the produce be merely attended to, it may be considered as a less profitable crop than most others. But, as a means of ameliorating and improving the soil at the same time, it is esteemed of great value. As to the produce in green pease, in the husk, the average of the early crops in Middlesex is supposed to be from about twenty-five to thirty sacks the acre, which, selling at from 8s. to 18s. the sack, afford about £18 the acre. The author of the Synopsis of Husbandry, however, states the produce about Dartford, at about forty sacks the acre, though, he says, fifty have sometimes been gathered from that space of land. The produce of pease in straw is very uncertain. In flour it is as three to two of the bulk in grain, and husked and split for soups as four to two. 1000 parts of pea flour afforded Sir H. Davy 574 parts of nutritive or soluble matter, viz. 501 of mucilage or vegetable animal matter, twenty-two of sugar, thirty-five of gluten, and sixteen of insoluble extract.

SECT. II.—OF PLANTS CULTIVATED FOR ROOTS.

Turnips delight in a gravelly soil, and can be raised to great perfection, and without the least hazard of miscarrying. At the same time there is no soil but will bear turnips, when well prepared. No agriculturist ever deserved better of a country than he who first cultivated turnips in the field. No plant is better fitted for the climate of Britain, no plant prospers better in the coldest part of it, and no plant contributes more to fertility. In a word, there has not for two centuries been introduced a more valuable improvement.

Of all roots, turnips require the finest mould; and, to that end, of all harrows frost is the best. To give access to frost, the land ought to be prepared by ribbing after harvest, as above directed in preparing land for barley. If the field be not subject to annuals, it may lie in that state till the end of May; otherwise the weeds must

be destroyed by a breaking about the middle of April, and again in May, if weeds arise. The first week of June plough the field with a shallow furrow. Lime it if requisite, and harrow the lime into the soil. Draw single furrows, with intervals of three feet, and lay dung in the furrows. Cover the dung sufficiently, by going round it with the plough, and forming the three feet spaces into ridges. The dung comes thus to lie below the crown of every ridge.

The season of sowing must be regulated by the time intended for feeding. When intended for feeding in November, December, January, and February, the seed ought to be sown from the 1st to the 20th of June. Where the feeding is intended to be carried on to March, April, and May, the seed must not be sown till the end of July. Turnips sown earlier than above directed flower that very summer, and run fast to seed; which renders them unfit for food. If sown much later, there is no food but from the leaves. Though by a drill plough the seed may be sown of any thickness, the safest way is to sow thick. Thin sowing is liable to many accidents, which are far from being counterbalanced by the expense that is saved in thinning. Thick sowing can bear the ravages of the black fly, and leave a sufficient crop behind. It is a protection against drought, gives the plants a rapid progress, and establishes them in the ground before it is necessary to thin them.

The sowing turnips broad-cast is universal in England, and common, though a barbarous practice, in Scotland. The eminent advantages of turnips is, that, besides a profitable crop, they make a most complete fallow; and the latter cannot be obtained but by horse-hoeing. Upon that account, the sowing turnips in rows at three feet distance is recommended. Wider rows answer no profitable end; straiter rows afford not room for a horse to walk in. When the turnips are about four inches high, annual weeds will appear. Go round every interval with the slightest furrow possible, two inches from each row, moving the earth from the rows towards the middle of the interval. A thin plate of iron must be fixed on the left side of the plough, to prevent the earth from falling back and burying the turnips. Let women weed the rows with their fingers; which is better and cheaper than with the hand hoe, which is also apt to disturb the roots of the turnips that are to stand, and to leave them open to drought by removing the earth from them. The standing turnips are to be twelve inches from each other: a greater distance makes them swell too much; less affords them not sufficient room. A woman soon comes to be expert in weeding. The following hint may be necessary to a learner. To secure the turnip that is to stand, let her cover it with the left hand, and with the right pull up the turnip on both sides. After thus freeing the standing turnip, she may safely use both hands. Let the field remain in this state till the appearance of new annuals make a second ploughing necessary; which must be in the same furrow with the former, but deeper. As in this ploughing the iron plate is removed, part of the loose earth

will fall back on the roots of the plants: the rest will fill the middle of the interval, and bury every weed. When weeds begin again to appear, then is the time for a third ploughing in an opposite direction, which lays the earth to the roots of the plants. This ploughing may be about the middle of August; after which weeds rise very faintly. If they do rise, another ploughing will clear the ground of them. Weeds that at this time rise in the row, may be cleared with a band-hoe, which can do little mischief among plants twelve inches from each other. But it may be done cheaper with the hand. And after the leaves of turnips in a row meet together, the hand is the only instrument that can be applied for weeding.

In swampy ground, the surface of which is best reduced by paring and burning, the seed may be sown in rows with intervals of a foot. To save time, a drill plough may be used that sows three or four rows at once. Hand-hoeing is proper for such ground; because the soil under the burnt stratum is commonly full of roots, which digest and rot better under ground than when brought to the surface by the plough. While these are digesting, the ashes will secure a good crop. In cultivating turnips, care should be taken to procure good, bright, nimble, and well dried seed, and of the best kinds. The Norfolk farmers generally raise the oval white, the large green topped, and the red or purple topped kinds, which from long experience they have found most profitable. The roots of the green topped will grow to a large size, and continue good much longer than others. The red or purple topped will also grow large, and continue good till February; but the roots become hard and stringy sooner than the former. The green topped, growing more above ground, is in more danger of injury from severe frosts than the red or purple, which are more than half covered by the soil; but it is the softest and sweetest, when grown large, of any kind. They are brought to table a foot in diameter, as good as garden turnips.

Turnips delight in a light soil, of sand and loam mixed. When the soil is rich and heavy, although the crop may be as weighty, they will be rank, and run to flower earlier in spring. Turnip seed will not do well without frequent changing. The Norfolk seed is sent to most parts of the kingdom, and even to Ireland, but after two years it degenerates; so that those who wish to have turnips in perfection should procure it fresh every year from Norwich, to prevent being imposed upon by seed of that name inferior in quality.

When the plants have got five leaves, they should be hoed, and set out at least six inches apart. A month afterward, or earlier if it be a wet season, a second hoeing should take place, and the plants be left at least fourteen inches from each other, especially if intended for feeding cattle; for, where the plants are left thicker, they will be proportionably smaller, unless the land is very rich indeed. Some of the best Norfolk farmers sow turnips in drills three feet asunder, and at a second hoeing leave them a foot apart. By these means the trouble and ex-

pense of hoeing is much lessened, and the crop of equal weight as when sown in the common method. The intervals may easily be cleared of weeds by the horse-hoe. Great quantities of turnips are raised in Norfolk every year for feeding black cattle, which turn to great advantage. An acre of land contains 4840 square yards, or 43,560 square feet. If then every square foot contains one turnip, and they weigh only two pounds each, here will be a mass of excellent food of forty-six tons per acre, worth from four to five guineas and sometimes more.

Extraordinary crops of barley frequently succeed turnips, especially when fed off the land. In feeding them off, the cattle should not be suffered to run over too much of the ground at once; for in that case they will tread down and spoil twice as many as they eat. In Norfolk they are confined by hurdles to as much as is sufficient for them for one day. By this mode the crop is eaten clean, the soil is equally trodden, which if light is of much service, and equally manured by the cattle. A notion prevails, in many places, that mutton fattened with turnips is thereby rendered rank and ill tasted; but this is a vulgar error. The best mutton in Norfolk is all fed with turnips. Rank pastures, and marshy lands produce rank mutton. If the land be wet and spongy, the best method is to draw and carry off your turnips to some dry pasture; for the treading of the cattle will not only injure the crop, but render the land so stiff that you must be at an additional expense in ploughing. To preserve turnips for late spring seed, the best method, and which has been tried with success by some of the best English farmers, is to stalk them up in dry straw; a load of which is sufficient to preserve forty tons of turnips. The method is easy, and is as follows:—After drawing your turnips in February, cut off the tops and tap roots (which may be given to sheep), and let them lie a few days in the field. Then, on a layer of straw next the ground, place a layer of turnips two feet thick; then another layer of straw, and so on alternately, till you have brought the heap to a point. Care must be taken to turn up the edges of the layers of straw, to prevent the turnips from rolling out; cover the top well with long straw, and it will serve as a thatch for the whole. In this method, as the straw imbibes the moisture exhaled from the roots, all vegetation will be prevented, and the turnips will be nearly as good in May as when first drawn from the field. If straw be scarce, old haulm or stubble will answer the same purpose. But, to save this trouble and expense, farmers in all counties would find it their interest to adopt the method used by the Norfolk farmers, which is, to continue sowing turnips to the end of August; by which means their late crops remain good in the field till the end of April, and often till the middle of May. The advantages of having turnips good till the spring seed is ready, are so obvious and great, that many of the most intelligent farmers are now come into it, and find their account in so doing.

2. POTATOES.—The choice of soil is not of greater importance for any other plant than for potatoes. This plant in clay soil, or in rank

black loam lying low without ventilation, never makes palatable food. In a gravelly or sandy soil, exposed to the sun and free air, it thrives to perfection, and has a good relish. But a rank black loam, though improper to raise potatoes for the table, produces them in great plenty; and the product is a palatable food for horned cattle, hogs, and poultry. The spade is a proper instrument for raising a small quantity, or for preparing corners or other places inaccessible to the plough; but, for raising potatoes in quantities, the plough is the only instrument.

As two great advantages of a drilled crop are, to destroy weeds, and to have a fallow at the same time with the crop, no judicious farmer will think of raising potatoes in any other way. In September or October, as soon as that year's crop is removed, let the field have a rousing furrow, a cross brakeing next, and then be cleared of weeds by the cleaning harrow. Form it into three feet ridges, in that state to lie till April, which is the proper time for planting potatoes. Cross brake it, to raise the furrows a little. Then lay well digested horse dung along the furrows, upon which lay the roots eight inches distant. Cover up these with the plough, going once round every row. This makes a warm bed for the potatoes; hot dung below and a loose covering above, that admits every ray of the sun. As soon as the plants appear above ground, go round every row a second time with the plough, which will lay upon the plants an additional inch or two of mould, and at the same time bury all the annuals; and this will complete the ploughing of the ridges. When the potatoes are six inches high, the plough, with the deepest furrow, must go twice along the middle of each interval in opposite directions, laying earth first to one row, and next to the other. And to perform this work, a plough with a double mould board will be more expeditious; but, as the earth cannot be laid close to the roots by the plough, the spade must succeed, with which four inches of the plants must be covered, leaving little more but all the tops above ground; and this operation will bury all the weeds that have sprung since the former ploughing. What weeds arise after, must be pulled up by the hand. A hoe is never to be used here.

In the Bath Society Papers, we have the following practical observations on the culture and use of potatoes, given as the result of various experiments made for five years successively.

When the potatoe crop has been the only object in view, the following method is the most eligible:—The land being well pulverised by two or three good harrowings and ploughings, is then manured with fifteen or twenty cart loads of dung per acre, before it receives its last earth. Then it is thrown on to what the Suffolk farmers call the trench balk, which is narrow and deep ridge work, about fifteen inches from the centre of one ridge to the centre of the other. Women and children drop the sets in the bottom of every furrow fifteen inches apart; men follow and cover them with large hoes, a foot in width, pulling the mould down so as to bury the sets five inches deep; they must receive two or three hand hoeings, and be kept free from weeds; al-

ways observing to draw the earth as much as possible to the stems of the young plants. The first or second week in April is the most advantageous time for planting.

In the end of September or beginning of October, when the haulm becomes withered, they should be ploughed up with a strong double breasted plough. The workman must be cautioned to set his plough very deep, that he may strike below all the potatoes, to avoid damaging the crop. The women who pick them up, if not carefully attended to, will leave many in the ground, which will prove detrimental to any succeeding crop. To avoid which, let the land be harrowed, and turn in the swine to glean the few that may be left. By this method, the sets will be fifteen square inches from each other; it will take eighteen bushels to plant an acre; and the produce, if on a good mixed loamy soil, will amount to 300 bushels. If the potatoes are planted as a preparation for wheat, it is preferable to have the rows two feet two inches from each other, hand-hoeing only the space from plant to plant in each row; then turning a small furrow from the inside of each row by a common light plough, and afterwards with a double breasted plough with one horse, split the ridge formed by the first ploughing thoroughly to clean the intervals. This work should not be done too deep the first time, to avoid burying the tender plants; but the last earth should be ploughed as deep as possible; and the closer the mould is thrown to the stems of the plants the better. Thus fifteen bushels will plant an acre, and the produce will be about 300 bushels; and the land, by the summer ploughings, will be prepared to receive seed wheat immediately, and almost ensure a plentiful crop. The potatoe sets should be cut a week before planting, with one or two eyes to each, and the pieces not very small; two bushels of fresh slaked lime should be sown over the surface of the land as soon as planted, which will effectually prevent the attacks of the grub.

A premium having been offered by the Agricultural Society for the cultivation of potatoes by farmers, &c., whose rent does not exceed £40 per annum, the following methods were communicated, by which those who have only a small spot of ground may obtain a plentiful crop.

The earth should be dug twelve inches deep, if the soil will allow of it: after this, a hole should be opened about six inches deep, horse dung, or long litter should be put therein about three inches thick; this hole should not be more than twelve inches in diameter; upon this dung or litter, a potatoe should be planted whole, upon which a little more dung should be shook, and then earth put thereon. In like manner the whole plot of ground must be planted, taking care that each potatoe be at least sixteen inches apart; and, when the young shoots make their appearance, they should have fresh mould drawn round them with a hoe; and if the tender shoots are covered, it will prevent the frost from injuring them; they should again be earthed when the shoots make a second appearance, but not be covered, as the season will then be less severe. A plentiful supply of mould should be given.

them, and the person who performs this business should never tread upon the plant, or the hillock that is raised round it; as, the lighter the earth is, the more room the potatoe will have to expand. From a single root thus planted, very nearly forty pounds of large potatoes were obtained, and from almost every other root upon the same plot, from fifteen to twenty pounds; and, unless the soil be stony or gravelly, ten pound, or half a peck of potatoes may almost always be obtained from each root, by pursuing the above method. But cuttings or small sets will not do for this purpose.

The second method will suit those who have not time to dig their ground. Where weeds much abound, and have not been cleared in the winter, a trench may be opened in a straight line the whole length of the ground, and about six inches deep; in this trench the potatoes should be planted about ten inches apart; cuttings or small potatoes will do for this method. When they are laid in the trench, the weeds that are on the surface may be pared off on each side about ten inches from it, and be turned upon the plants; another trench should then be dug, and the mould that comes out of it turned on the weeds. Each trench should be regularly dug, that all the potatoes may be ten or twelve inches from each other. This method will raise more potatoes than can be produced by digging the ground twice, and dibbling in the plants; as the weeds lighten the soil, and give the roots room to expand. They should be twice hoed, and earthed up in rows. If cut potatoes are to be planted, every cutting should have two eyes, for, though fewer sets will be obtained, there will be a greater certainty of a crop, as one eye often fails. Where a crop of potatoes fails in part, amends may still be made by laying a little dung upon the knots of the straw or haulm of those potatoes that do appear, and covering them with mould; each knot or joint thus ordered, will, if the weather prove wet afterwards, produce more potatoes than the original roots. From the smallest potatoes planted whole, from four to six pound at a root were obtained, and some of the single potatoes weighed nearly two pound. These were dug in, in trenches where the ground was covered with weeds, and the soil was a stiff loamy clay.

A good crop may be obtained by laying potatoes upon turf at about twelve or fourteen inches apart, and upon beds of about six feet wide; on each side of which a trench should be opened about three feet wide, and the turf that comes thence should be laid with the grassy side downwards upon the potatoes; a spot of mould should next be taken from the trenches, and be spread over the turf; and in like manner the whole plot of ground that is to be planted must be treated. When the young shoots appear, another spot of mould from the trenches should be strewed over the beds, to cover the shoots; this will prevent the frost from injuring them, encourage them to expand, and totally destroy the young weeds. When the potatoes are taken up in the autumn, turn the earth again into the trenches, so as to make the surface level.

For field planting, a good method is to dung

the land, which should be once ploughed previous thereto; and, when ploughed a second time, the potatoe plants should be dropped before the plough in every third furrow, about eight or ten inches apart. Plants that are cut with two eyes are best for this purpose. The reason for planting them at so great a distance as every third furrow, is, that when the shoots appear, a horse hoe may go upon the two vacant furrows to keep them clean; and, after they are thus hoed, they should be moulded up in ridges; and, if this crop be taken up about October or November, the land will be in excellent condition to receive a crop of wheat. Lands that are full of twitch or couch grass, may be made clean by this method, as the horse-hoeing is as good as a summer fallow; and if, when the potatoes are taken up, women and children were to pick out such filth, no traces of it would remain; and by burning it a quantity of manure would be procured. After ploughing, none should ever dabble in potatoes, for treading the ground.

Vacant places in hedge rows might be grubbed and planted with potatoes, and a good crop might be expected, as the leaves of trees, thorns, &c., are a good manure, and will surprisingly encourage their growth, and gratify the wishes of the planter; who, by cultivating such places, will then make the most of his ground, and it will be in fine order to receive a crop of corn the following year.

The best method of taking up potatoes is to plough once round every row at the distance of four inches, removing the earth from the plants, and gathering up with the hand all the potatoes that appear. This distance is proper to prevent cutting the roots. When the ground is thus cleared by the plough, raise the potatoes with a fork having three broad toes. The potatoes must then be gathered with the hand.

It is of importance to have potatoes all the year round. For a long time they were in Scotland confined to the kitchen garden; and, after they were planted in the field, it was not supposed at first that they could be used after December. Of late they have been kept good till April. But it is easy to preserve them till the next crop: when taken out of the ground, lay in a corner of a barn a quantity that may serve till the spring covered with dry straw pressed down: bury the remainder in a hole dug in dry ground, mixed with the husks of dried oats, sand, or the dry leaves of trees, over which build a stack of hay or corn. When the pit is opened for taking out the potatoes, the eyes of what have tendency to push must be cut out; and this cargo will serve till the end of June. To be certain of making the old crop meet the new, the setting of a small quantity may be delayed till June, to be taken up at the ordinary time before frost. This cargo, having not arrived to full growth, will not be so ready to push as what are set in April. If the old crop be exhausted before the new crop is ready, the interval may be supplied by the potatoes of the new crop that lie next the surface, to be picked up with the hand; which, far from hurting the crop, will rather improve it.

Einhoff found mealy potatoes to contain twenty-four per cent. of their weight of nutritive mat-

ter, and rye seventy parts. Consequently sixty-four and a half measures of potatoes afford the same nourishment as twenty-four measures of rye. 1000 parts of potatoe yielded to Sir H. Davy from 200 to 360 parts of nutritive matter, of which from 155 to 200 were mucilage or starch, fifteen to twenty sugar, and thirty to forty gluten. Now, supposing an acre of potatoes to weigh nine tons, and one of wheat one ton, which is about the usual proportion, then as 1000 parts of wheat afford 950 nutritive parts, and 1000 of potatoe say 230, the quantity of nutritive matter afforded by an acre of wheat and potatoes will be nearly as nine to four; so that an acre of potatoes will supply more than double the quantity of human food afforded by an acre of wheat. The potatoe is perhaps the only root grown in Britain which may be eaten every day in the year without satiating the palate, and the same thing can only be said of the West Indian yam, and bread fruit. They are, therefore, the only substitute that can be used for bread with any degree of success, and indeed they often enter largely into the composition of the best loaf bread without at all injuring either its nutritive qualities or flavor. In the answer by Dr. Tissot to M. Linquet, the former objects to the constant use of potatoes as food, not because they are pernicious to the body, but because they hurt the faculties of the mind. He owns that those who eat maize, potatoes, or even millet may grow tall and acquire a large size; but doubts if any such ever produced a literary work of merit.' Potatoe meal may be preserved for years closely packed in barrels, or unground in the form of slices; these slices having been previously cooked or dried by steam, as originally suggested by Forsyth of Edinburgh. Some German philosophers have also proposed to freeze the potatoe, by which the feculous matter is separated from the starch, and the latter, being then dried and compressed, may be preserved for any length of time, or exported with ease to any distance. (*Annalen des Ackerbaues*, vol. iii. s. 389).

Potatoes as food for live stock are often joined with hay, straw, chaff, and other similar matters, and have been found useful in many cases, especially in the later winter months, for horses, cows, &c. With these substances, as well as in combination with other materials, as bean or barley-meal and pollard, they are also used in the fattening of neat cattle, sheep, and hogs. Potatoes are much more nutritive when boiled; they were formerly cooked in this way, but are now very generally steamed, especially in the north. The practice has been carried to the greatest extent by Curwen in feeding horses. He gives to each horse, daily, one and a half stone of potatoes mixed with a tenth of cut straw: 120 stones of potatoes require two and a quarter bushels of coals to steam them. An acre of potatoes, he considers, goes as far in this way as four of hay. Von Thær found them, when given to live-stock, produce more manure than any other food: 100 lbs. of potatoes producing sixty-six pounds of manure of the very best description. The baking of potatoes in an oven has also been tried with success (*Comm. Board of Agriculture*, vol. iv.); but the process seems too

expensive. They are also given raw to stock of every description, to horses and hogs washed, but not washed to cows or oxen. Washing was formerly a disagreeable and tedious business, but is now rendered an easy matter, whether on a large or small scale, by the use of the washing machine.

3. CARROTS and PARSNIPS.—Of all roots a carrot requires the deepest soil. It ought at least to be a foot deep, all equally good from top to bottom. If such a soil be not in the farm, it may be made artificially by trench ploughing, which brings to the surface what never had any communication with the sun or air. When this new soil is sufficiently improved by a crop or two with dung, it is fit for bearing carrots. Beware of dunging the year when the carrots are sown; for with fresh dung they seldom escape rotten scabs. The only soils proper for carrots are loam and sand. The ground must be prepared by the deepest furrow that can be taken, the sooner after harvest the better; immediately upon the back of which, a ribbing ought to succeed, as directed for barley. At the end of March, or beginning of April, which is the time of sowing the seed, the ground must be smoothed with a rake. Sow the seed in drills, with intervals of a foot for hand-hoeing, where the crop is an acre or two: but if the quantity of ground be greater, the intervals ought to be three feet for horse-hoeing. In flat ground without ridges, it is proper to make parallel furrows with the plough, ten feet asunder to carry off redundant moisture. The farmer will often find carrots a very advantageous crop; instances are given of their excellence as food for horses, cattle, and hogs.

The culture of PARSNIPS is much the same with that of carrots.

SECT. III.—PLANTS CULTIVATED FOR LEAVES, OR FOR LEAVES AND ROOTS.

The plants proper for the field of these kinds are cabbage red and white, colewort plain and curled, turnip-rooted cabbage, and the root of scarcity.

1. CABBAGE is an interesting article in husbandry. It is easily raised, is subject to few diseases, resists frost more than turnips, is palatable to cattle, and sooner fills them than turnips, carrots, or potatoes. The season for setting cabbage depends on the use it is intended for. If intended for feeding in November, December, and January, plants procured from seed sown the end of July the preceding year must be set in March or April. If intended for feeding in March, April, and May, the plants must be set the first week of the preceding July, from seed sown in the end of February or beginning of March the same year. The late setting of the plants retards their growth; by which means they have a vigorous growth the following spring. And this crop makes an important link in the chain that connects winter and summer green food. Where cabbage for spring food is neglected, a few acres of rye sown at Michaelmas will supply the want. After the rye is consumed there is time sufficient to prepare the ground for turnips.

Where cabbage plants are to be set in March, the field must be made up after harvest in ridges

three feet wide. In that form let it lie all winter to be mellowed with air and frost. In March take the first opportunity, between wet and dry, to lay dung in the furrows. Cover the dung with a plough, which will convert the furrow into a crown, and the crown into a furrow. Set the plants upon the dung, three feet from each other. Plant them so as to make a straight line cross the ridges, and along the furrows, to which a gardener's line stretched perpendicularly cross the furrows will be requisite. This will set each plant at the distance precisely of three feet from the plants that surround it. The purpose of this is to give opportunity for ploughing, not only along the ridges, but across them. This mode saves hand-hoeing, is a more complete dressing to the soil, and lays earth neatly round every plant. If the soil be deep and composed of good earth, a trench ploughing after the preceding crop will be proper; in which case the time for dividing the field into three feet ridges ought immediately to precede the dunging for the plants. If weeds rise so close to the plants as not to be reached by the plough, destroy them with a hand-hoe. Unless the soil be much infested with annual weeds, twice ploughing after the plants are set will be a sufficient dressing. The first removes the earth from the plants; the next, at the distance of a month or so, lays it back.

Where the plants are to be set in July, the field must be ribbed as directed for barley. It ought to have a slight ploughing in June before the planting, to loosen the soil, but not so as to bury the surface earth; after which the three feet ridges must be formed, and the other particulars carried on as directed above with respect to plants set in March.

2. As to the *turnip-rooted cabbages*, in the Bath Society Papers we have the following account of Sir Thomas Beevor's method of cultivating them, which he found to be cheaper and better than any other:—'In the first or second week in June I sow the same quantity of seed, hoe the plants at the same size, leave them at the same distance from each other, and treat them in all respects like the common turnip. In this method I have always obtained a plentiful crop of them; to ascertain the value of which I need only inform you that, on the 23d of April last, having then two acres left of my crop, sound, and in good perfection, I divided them by fold hurdles into three parts of nearly equal dimensions. Into the first part I put twenty-four small bullocks of about thirty stone weight each (fourteen pounds to the stone), and thirty middle-sized fat widders, which, at the end of the first week, after they had eaten down the greater part of the leaves, and some part of the roots, I shifted into the second division, and then put seventy lean sheep into what was left of the first; these fed off the remainder of the turnips left by the fat stock; and so they were shifted through the three divisions, the lean stock following the fat as they wanted food, until the whole was consumed. The twenty-four bullocks and the thirty fat widders continued in the turnips until the 21st of May, and the seventy lean sheep until the 29th, which is one day over four weeks; so that the

two acres kept me twenty-four small bullocks and 110 sheep four weeks, not reckoning the overplus day of keeping the lean sheep; the value, at the rate of keeping at that season, cannot be estimated in any common year at less than 4*d.* a week for each sheep, and 1*s.* 6*d.* per week for each bullock, which would amount together to the sum of £14 10*s.* 8*d.* for the two acres.

'You will observe that, in the valuation of the crop above mentioned, I have claimed no allowance for the great benefit the farmer receives by being enabled to suffer his grass to get into a forward growth, nor for the superior quality of these turnips in fattening his stock; both which circumstances must stamp a new and a great additional value upon them. But, as their continuance on the land may seem to be injurious to the succeeding crop, to supply that loss I have always sown buck-wheat on the first earth upon the land from which the turnips were thus fed off; allowing one bushel of seed per acre, for which I commonly receive from five to six quarters per acre in return. Thus you see that, in providing a most incomparable vegetable food for cattle, in that season of the year in which the farmer is generally most distressed, and his cattle almost starved, a considerable profit may likewise be obtained, much beyond what is usually derived from his former practice, by the great produce and price of a crop raised at so easy an expense as that of the buck-wheat, which with us sells commonly at the same price as barley, oftentimes more, but very rarely for less. The land on which I have usually sown turnip-rooted cabbages is a dry mixed soil, worth 15*s.* per acre.'

To the preceding account the Society have subjoined the following note:—'Whether we regard the importance of the subject, or the clear and practical information which the foregoing letter conveys, it may be considered as truly interesting as any we have ever been favored with; and therefore it is recommended in the strongest manner to farmers in general, that they adopt a mode of practice so decisively ascertained to be in a high degree judicious and profitable.'

To raise the turnip-rooted cabbage for transplanting, the best method yet discovered is to breast-plough and burn as much old pasture as may be judged necessary for the seed-bed: two perches well stocked with plants will be sufficient to plant an acre. The land should be dug as shallow as possible, turning the ashes in; and the seed should be sown the beginning of April. The land to be cultivated and dunged as the common turnip. About midsummer will be a proper time for planting, which is best done as follows:—The land to be thrown into one-bout ridges, upon the tops of which the plants are to be set, about eighteen inches from each other. As soon as the weeds rise give a hand-hoeing, afterwards run the ploughs in the intervals, and fetch a furrow from each ridge, which, after lying two or three weeks, is again thrown back to the ridges; if the weeds rise again give them another hand-hoeing. If the young plants in the seed-bed be attacked by the fly, sow wood-ashes over them when the dew is on which will prevent their ravages

3. The mangel wurtzel, or Root of SCARCITY, *beta cicla* (see BETA), delights in a rich loamy land well dunged. It is directed to be sown in rows, or broad-cast, and as soon as the plants are of the size of a goose-quill, to be transplanted in rows of eighteen inches distance, and eighteen inches apart, one plant from the other: care must be taken in the sowing to sow very thin, and to cover the seed, which lies in the ground about a month, an inch only. In transplanting the root is not to be shortened, but the leaves cut at the top; the plant is then to be planted with a setting stick, so that the upper part of the root shall appear about half an inch out of the ground; this last precaution is necessary to be attended to. These plants will strike root in twenty-four hours, and a man will plant with ease 1800 or 2000 a day. In the seed-bed the plants, like all others, must be kept clear of weeds: when planted out, after once hoeing, they will suffocate every kind of weed near them.

The best time to sow the seed is from the beginning of March to the middle of April: but some continue sowing every month until the beginning of July, to have a succession of plants. Both leaves and roots have been extolled as excellent both for man and beast. This plant is said not to be liable, like the turnip, to be destroyed by insects; for no insect touches it, nor is it affected by excessive drought, or the changes of seasons. Horned cattle, horses, pigs, and poultry, are exceedingly fond of it when cut small. The leaves may be gathered every twelve or fifteen days; they are from thirty to forty inches long, by twenty-two to twenty-five inches broad. This plant is excellent for milch cows, when given to them in proper proportions, as it adds much to the quality as well as quantity of their milk; but care must be taken to proportion the leaves with other green food, otherwise it would abate the milk, and fatten them too much, they being of so exceedingly fattening a quality.

4. OF TARES.—The common tare is distinguished into the winter and spring tare, probably the same original plant; but a material difference has been superinduced by cultivation. (*Annals of Agriculture*, vol. ii.) The winter tare escapes injury from frosts, which destroy the spring variety: the difference in the seeds is, however, so inconsiderable, as to be scarcely distinguished; but 'the winter-tare vegetates with a seed leaf of a fresh green color, whereas the spring tare comes up with a grassy spear of a brown dusky hue.'—*Dickson's Practical Agriculture*.

The winter variety is sown in September and October, and the first sowing in spring ought to be early. If they are to be cut green for soiling throughout the summer and autumn, which is the most advantageous method of consuing them, successive sowings should follow till the end of May. The quantity of seed to an acre is from two bushels and a half to three bushels and a half, according to the time of sowing, and as they are to be consumed green or left to stand for a crop.

Tares are in some places eaten on the ground, particularly by sheep: and, as the winter sown variety comes early, the value of this food is then

very considerable. The waste, however, in this way, even though the sheep be confined in hurdles, is great: and still greater when consumed by horses or cattle. But if the plants be cut green, and given to stock either on the field or in the fold-yards, there is perhaps no green crop of greater value.

A little rye sown with winter tares, and a few oats with the spring sort, serve to support their weak stems, and add to the bulk of the crop. There is little difference in the culture of tares and peas; they are often sown broad-cast, but sometimes in rows, with intervals to admit of hand-hoeing. The land ought to be rolled as a preparation; and they should always be cut with the scythe, rather than a sickle. When thus cut with the scythe, even an early spring sown crop sometimes yields a weighty after crop. In those districts where winter sown tares are found to succeed, the ground may be cleared in time for being sown with turnips, or dressed like a fallow for wheat.

5. OF RAPE-SEED.—Rape is cultivated to a large extent in Great Britain, not only for the sake of the oil, but also for feeding sheep. The late Mr. Culley of Northumberland gives the following account of its culture, founded on his own practice:—

'Rape may be sown from the 24th of May to the 8th of June: but comes to the greatest growth if sown in May. If sown earlier it is apt to run to seed. From two to three pounds of seed is required per acre, sown by a common turnip-seed drill. But, as rape-seed is so much larger than turnip-seed, the drill should be wider. When hoed the rape should be set out at the same distance as turnip plants. The drills should be from twenty-six to twenty-eight or thirty inches, according to the quantity of dung given. As many ploughings, harrowings, and rollings, &c., should be given, as may be necessary to make that kind of poor soil as fine as possible, and cleared of twich, &c.: the produce will be from twenty-five to even fifty tons per acre, or upwards. But it is not so much the value of the green crop (though the better the green crop, the better will the wheat be) as the great certainty of a valuable crop of wheat, that merits attention. The sheep are put on from the beginning to the middle of August; they must have the rape consumed by the middle, or at latest by the end of September, so that the wheat may be got sown, on such poor damp soils, before the autumnal rains take place. The number of sheep must depend on the goodness or badness of the crop. But as many sheep must be employed as to eat the rape by the middle of September, or end of that month at the latest, for the reasons formerly given. The Burwell red wheat (so called from a village in Cambridgeshire) is always preferred. Poor clays will not allow deep ploughing, consequently that operation must be governed by the depth of the soil. The land must be made as clean as any naked fallow. There is scarcely an instance known of a crop of wheat sown after rape, and eat off with sheep, being mildewed, and the grain is generally well perfected. Mr. Culley has known a crop of wheat after rape, upon a poor moorish

thin clay soil, worth much more than the fee-simple of the land that produced it. He has frequently known land, both after rape and after naked fallow, in the same field; and invariably the rape-wheat was better in every respect than that after naked fallow.'—Husbandry of Scotland, vol. ii. appendix, p. 45.

OF THE CULTURE OF GRASSES.

The end of August or the beginning of September is the best season for sowing grass-seeds, as there is time for the roots of the young plants to fix themselves before the sharp frosts set in. Moist weather is best for sowing; the earth being then warm, the seeds vegetate immediately; but if this season proves unfavorable, they will do very well in the middle of March.

Never sow on foul land; plough it well, and clear it from the roots of couch-grass, rest-harrow, fern, broom, and all other noxious weeds. If these are suffered to remain they will soon destroy the young grass. Rake these up in heaps, burn them on the land, and spread the ashes as a manure. Repeat the ploughings and harrowings in dry weather. If the soil be clayey and wet make some drains to carry off the water. Before sowing lay the land as level as possible. If the grass seeds are clean, three bushels will be sufficient per acre. When sown, harrow it in gently, and roll it in with a wooden roller. When it comes up, fill up all the bare spots with fresh seed, which, if rolled to fix it, will soon come up and overtake the rest. In Norfolk they sow clover with their grasses, particularly with rye-grass; but this should not be done except when the land is designed for grass only three or four years, because neither of these kinds will last long in the lands. Where you intend it for a continuance it is better to mix only small white Dutch clover, or marl grass with other grass seed, and not above eight pounds to an acre. These are abiding plants, spread close on the surface, and make the sweetest feeding for cattle. In spring root up thistles, hemlock, or any large weeds that appear. The doing this while the ground is soft enough to permit drawing by the roots, and before they seed, will save a vast deal of trouble afterwards.

A common method of laying down fields to grass is extremely injudicious. Some sow barley with the grasses, which, they suppose to be useful in shading them, without considering how much the corn draws away the nourishment. Others take their seeds from a foul hay-rick; by which means, besides filling the land with rubbish and weeds, what they intend for dry soils may have come from moist, where it grew naturally, and vice versâ. The consequence is that the ground, instead of being covered with a good thick sward, is filled with plants unnatural to it. The kinds of grass most eligible for pasture lands are, the annual meadow, creeping, and fine bent, the fox-tail, and crested dog's tail, the poas, the fescues, the vernal, oat-grass, and the rye-grass.

We do not, however, approve of sowing all these kinds together; for besides their ripening at different times, by which we can never cut them all in perfection and full vigor, no cattle are fond of all alike. Horses will scarcely eat hay which oxen

and cows will thrive upon; sheep are particularly fond of some kinds, and refuse others. The darnel-grass, if not cut before several of the other kinds are ripe, becomes so hard and wiry in the stalks, that few cattle eat it. Such as wish for a particular account of the above-mentioned grasses, will be amply gratified in consulting Mr. Stillingfleet on this subject, who has treated it with great judgment and accuracy. The substance of his observations is given in our article GRASS.

The grasses commonly sown for pasture, for hay, or to be cut green for cattle, are red clover, white clover, yellow clover, rye-grass, narrow-leaved plantain called ribwort, saintfoin and lucerne. Red clover is of all the most proper to be cut green for summer food. It is a biennial plant when suffered to perfect its seed; but, when cut green, it will last three years, and in a dry soil longer. At the same time the safest course is to let it stand but a single year; if the second year's crop happen to be scanty, it proves, like a bad crop of pease, a great encourager of weeds by the shelter it affords them. Here, as in all other crops, the goodness of seed is of importance. Choose plump seed of a purple color, because it takes on that color when ripe. It is red when hurt in the drying, and of a faint color when unripe.

Red clover is luxuriant upon a rich soil, whether clay, loam, or gravel: it will grow even upon a moor, when properly cultivated. A wet soil is its only bane. To have red clover in perfection, weeds must be extirpated, and stones taken off. The mould ought to be made as fine as a harrowing can make it; and the surface smoothed with a light roller. This gives an opportunity for distributing the seed evenly; which must be covered by a small harrow with teeth not larger than that of a garden rake. In harrowing, the man should walk behind with a rope in his hand fixed to the back part of the harrow, ready to disentangle it from stones, clods, turnip or cabbage roots, which would trail the seed, and displace it.

No precise depth is necessary for the seed of red clover. It will grow vigorously from two inches deep, and it will grow when barely covered. Half an inch may be reckoned the most advantageous position in a clay soil, a whole inch in what is light or loose. It is a vulgar error that small seed ought to be sparingly covered. Misled by it, farmers cover their clover seed with a bushy branch of thorn, which not only covers it unequally, but leaves part on the surface to wither in the air. The proper season for sowing red clover is from the middle of April to the middle of May. It will spring from the first of March to the end of August; but such liberty ought not to be taken.

There cannot be a greater blunder in husbandry than to be sparing of seed. Some writers talk of sowing an acre with four pounds. That quantity of seed, say they, will fill an acre with plants as thick as they ought to stand. This rule may be admitted as to grain, but will not answer with respect to grass. Grass seed cannot be sown too thick: the plants shelter one another; they retain all the dew; and they must push for-

ward, having no room laterally. Observe the place where a sack of pease, or of other grain, has been set down for sowing: the seed dropped there accidentally grows more quickly than in the rest of the field sown thin out of hand. A young plant of clover, or of sainfoin, according to Tull, may be raised to a great size where it has room; but the field will not produce half the quantity. When red clover is sown for cutting green, there ought not to be less than twenty-four pounds to an acre. A field of clover is seldom too thick; the smaller the stem, the more acceptable it is to cattle. It is often too thin; and when so the stem tends to wood.

Red clover is commonly sown with grain; and the most proper grain is flax. The soil must be highly cultivated for flax as well as for red clover. The proper season for sowing is the same for both; the leaves of flax, being very small, admit of free circulation of air; and flax being an early crop is removed so early as to give the clover time for growing. In a rich soil it has grown so fast as to afford a good cutting that very year. Next to flax, barley is the best companion to clover. The soil must be loose and free for barley; as well as for clover: the season for sowing is the same; and the clover is well established in the ground before it is overtopped by the barley. At the same time, barley commonly is sooner cut than either oats or wheat. When clover is sown in spring upon wheat, the soil, which has lain five or six months without being stirred, is an improper bed for it; and the wheat, being in the vigor of growth, overtops it from the beginning. It cannot be sown along with oats, because of the hazard of frost; and when sown as usual among the oats three inches high; it is overtopped, and never enjoys free air till the oats be cut. Where oats are sown upon the winter furrow, the soil is rendered as hard as when under wheat. Red clover is sometimes sown by itself without other grain: but this method, besides losing a crop, is not salutary; because clover in its infant state requires shelter.

As to the quantity of grain proper to be sown with clover, in a rich soil well pulverised, a peck of barley on an English acre is all that ought to be ventured; but there is not so much soil in Scotland so rich. Two Linlithgow firlots make the proper quantity for an acre that produces six bolls of barley; half a firlot for what produces nine bolls. To some, so small a quantity may appear ridiculous. But a rich soil in good order, will, from a single seed of barley, produce twenty or thirty vigorous stems.

The culture of white clover, yellow clover, ribwort, and rye-grass, is the same in general with that of red clover. Yellow clover, ribwort, and rye-grass, are all early plants, blooming in the end of April or beginning of May. The two latter are evergreens, and therefore excellent for winter pasture. Rye-grass is less hurt by frost than any of the clovers, and will thrive in a moister soil: nor is it much affected by drought. In a rich soil it grows four feet high. These grasses are generally sown with red clover for producing a plentiful crop. The proportion of seed is arbitrary; and there is little danger of too much. When rye-grass is sown for procuring seed, five

firlots wheat measure may be sown on an acre; and, for procuring seed of rib-wort, forty pounds may be sown. The roots of rye-grass spread horizontally: they bind the soil by their number; and, though small, are yet so vigorous as to thrive in hard soil. Red clover has a large tap-root, which cannot penetrate any soil but what is open and free; and the largeness of the root makes the soil still more open and free. Rye-grass, once a great favorite, appears to be discarded in most parts of Britain. The common practice has been to sow it with red clover, and to cut them promiscuously in the beginning of June for green food, and a little later for hay. This indeed is the proper season for cutting red clover, because it then begins to flower; but, as the seed of the rye-grass is then approaching to maturity, its growth is stopped for that year, as much as of oats or barley cut after the seed is ripe. Oats or barley cut green before the seed forms, will afford two other cuttings; which is the case of rye-grass, of yellow clover, and of ribwort. By such management, all the profit will be drawn that these plants can afford.

When red clover is intended for seed, the ground ought to be cleared of weeds, as the seed cannot otherwise be preserved pure: what seeds escape the plough ought to be taken out by the hand. In England, when a crop of seed is intended, the clover is always first cut for hay. This practice will not answer in Scotland, as the seed would often be too late for ripening. It would do better to eat the clover by sheep till the middle of May, which would allow the seed to ripen. The seed is ripe when, upon rubbing it between the hands, it parts readily from the husk. Then apply the scythe, spread the crop thin, and turn it carefully. When perfectly dry, take the first hot day for threshing it on boards covered with a coarse sheet. Another way, less subject to risk, is to stack the dry hay, and to thresh it in the end of April. After the first threshing, expose the husks to the sun; and thresh them till no seed remain. Nothing is more efficacious than a hot day to make the husk part with its seed; in which view it may be exposed to the sun by parcels, in an hour or two before the flail is applied.

White clover, intended for seed, is managed in the same manner. No plant ought to be mixed with rye-grass that is intended for seed. In Scotland much rye-grass seed is hurt by transgressing that rule. The seed is ripe when it parts easily with the husk. The yellowness of the stem is another indication of its ripeness; in which particular it resembles oats, barley, and other culmiferous plants. The best manner to manage a crop of rye-grass, for seed, is to bind it loosely in small sheaves, widening them at the bottom to make them stand erect; as is done with oats in moist weather. In that state they may stand till sufficiently dry for threshing. They thus dry more quickly, and are less hurt by rain, than by close binding and putting the sheaves in shocks like corn. The worst way of all is to spread the rye-grass on the moist ground; for it makes the seed malten. The sheaves, when sufficiently dry, are carried in close carts to where they are to be threshed on a board, as mentioned above for

clover. Put the straw in a rick when 100 stone or so are threshed. Carry the threshing board to the place where another rick is intended; and so on till the whole seed is threshed, and the straw ricked. There is necessity for close carts to save the seed which is apt to drop out in a hot day; and a hot day ought always to be chosen for threshing. Carry the seed in sacks to the granary or barn, to be separated from the husks by a fanner. Spread the seed thin upon a timber floor, and turn it once or twice a-day till perfectly dry. If suffered to take a heat, it is useless for seed.

The writers on agriculture reckon sainfoin preferable to clover in many respects. they say that it produces a larger crop; that it does not hurt cattle when eaten green; that it makes better hay; that it continues four times longer in the ground; and that it will grow on land that will bear no other crop. Sainfoin has a very long tap-root, which is able to pierce very hard earth. The roots grow very large; and the larger they are, they penetrate to the greater depth; and hence this grass, when it thrives well, receives a great part of its nourishment from below the staple of the soil: of course, a deep dry soil is best for sainfoin. When plants draw their nourishment from that part of the soil that is near the surface, it is not of much consequence whether their number be great or small. But the case is very different when the plants receive their food, not only near, but also deep below the surface. Besides, plants that shoot their roots deep are often supplied with moisture, when those near the surface are parched with drought.

To render the plants of sainfoin vigorous, they must be sown thin. The best method of doing this is by a drill; because, when sown in this manner, not only the weeds, but also the super-numerary plants, can easily be removed. It is several years before sainfoin comes to its full strength; and the number of plants sufficient to stock a field, while in this imperfect state, will make but a poor crop for the first year or two. It is therefore necessary that it be sown in such a manner as to make it easy to take up plants in such numbers, and in such order, as always to leave in the field the proper number in their proper places. This can only be done with propriety by sowing the plants in rows by a drill. Supposing a field to be drilled in rows at ten inches distance, the partitions may be hand-hoed, and the rows dressed in such a manner as to leave a proper number of plants. In this situation the field may remain two years; then one-fourth of the rows may be taken out in pairs, in such a manner as to make the beds of fifty inches, with six rows in each, and intervals of thirty inches, which may be ploughed. Next year another fourth of the rows may be taken out in the same manner, so as to leave double rows, with partitions of ten inches, and intervals of thirty; all of which may be hoed at once or alternately, as may be most convenient.

The great quantity of this grass which the writers on this subject assure us may be raised upon an acre, and the excellency and great value of the hay made of it, should induce farmers to make a complete trial of it. The plants taken up from a field of sainfoin may be set in another

field; and if the transplanting of the grass succeeds as well as the transplanting of lucerne has done with Mr. Lunin de Chateauvieux, the trouble and expense will be sufficiently recompensed by the largeness of the crops. In transplanting, it is necessary to cut off great part of the long tap-root: this will prevent it from striking very deep into the soil, and make it push out large roots in a sloping direction from the cut end of the tap-root. Sainfoin managed in this manner will thrive even on shallow land that has a wet bottom, provided it be not overstocked with plants. Whoever inclines to try the culture of this grass in Scotland, should take great pains in preparing the land, and making it as free from weeds as possible. In England, as the roots strike deep in that chalky soil, this plant is not liable to be so much injured by drought as other grasses are, whose fibres lie horizontally, and lie near the surface. The quantity of hay produced is greater and better in quality than any other. But there is one advantage attending this grass, which renders it superior to any other; viz. that it affords excellent feeding for milch cows. The prodigious increase of milk which it makes is astonishing, being nearly double that produced by any other green food. The milk is also better, and yields more cream than any other; and the butter procured from it is much better colored and flavored.

The following remarks by an English farmer are made from much experience and observation. Sainfoin is much cultivated in those parts where the soil is of a chalky kind. It will always succeed well where the roots run deep; the worst soil of all for it is where there is a bed of cold wet clay, which the tender fibres cannot penetrate. It will make a greater increase of produce, by at least thirty times, than common grass or turf on poor land. Where it meets with chalk or stone, it will extend its roots through the cracks and chinks to a very great depth, in search of nourishment. The dryness is of more consequence than the richness of land for sainfoin; although land that is both dry and rich will always produce the largest crops. It is very commonly sown broad-cast; but it answers best in drills, especially if the land be made fine by repeated ploughing, rolling, and harrowing. Much depends on the depth which this seed is sown. If it be buried more than an inch deep, it will seldom grow; and, if left uncovered, it will push out its roots above ground, and these will be killed by the air. March and the beginning of April are the best seasons for sowing it, as the severity of winter and the drought of summer are equally unfavorable to the young plants. A bushel of seed sown broad-cast, or half that quantity in drills, if good, is sufficient for an acre. The drill should be thirty inches apart, to admit of horse-hoeing between them. Much depends on the goodness of the seed, which may however, be best judged of by the following marks:—

The husk being of a bright color, the kernel plump, of a gray or bluish color without, and, if cut across, greenish and fresh withinside; if it be thin and furrowed, and of a yellowish cast, it will seldom grow. When the plants stand single, and have room to spread, they produce the

greatest quantity of herbage, and the seed ripens best. But farmers in general plant them so close that they choke and impoverish each other, and often die in a few years. Single plants run deepest and draw most nourishment; they are also easiest kept free from weeds. A single plant will often produce half a pound of hay, when dry. On rich land this plant will yield two good crops in a year, with a moderate share of culture. A good crop must not be expected the first year; but, if the plants stand not too thick, they will increase in size the second year prodigiously. No cattle should be turned on the field the first winter after the corn is off with which it was sown, as their feet would injure the young plants. Sheep should not come on the following summer, because they would bite off the crown of the plants, and prevent their shooting again. A small quantity of soapers' ashes as a top-dressing will be of great service, if laid on the first winter.

If the sainfoin be cut just before it comes into bloom, it is admirable food for horned cattle; and, if cut thus early, it will yield a second crop the same season. But, if it proves a wet season, it is better to let it stand till its bloom be perfected; for great care must be taken, in making it into hay, that the flowers do not drop off, as cows are very fond of them; and it requires more time than other hay in drying. Sainfoin is so excellent a fodder for horses, that they require no oats while they eat it, although they be worked hard all the time. Sheep will also be fattened with it faster than with any other food. If the whole season for cutting proves very rainy, it is better to let the crop stand for seed, as that will amply repay the loss of the hay; because it will not only fetch a good price, but a peck of it will go as far as a peck and a half of oats for horses. The best time of cutting the seeded sainfoin is when the greatest part of this seed is well filled, the first blowing ripe, and the last blowing beginning to open. For want of this care some people have lost most of their seed by letting it stand too ripe. Seeded sainfoin should always be cut in a morning or evening, when the dews render the stalks tender. If cut when the sun shines hot, much of the seed will fall out and be lost.

An acre of very ordinary land, when improved by this grass, will maintain four cows very well from the 1st of April to the end of November; and afford, besides, a sufficient store of hay to make the greater part of their food the four months following. If the soil be tolerably good, a field of sainfoin will last from fifteen to twenty years in prime; but, at the end of seven or eight years, it will be necessary to lay on a moderate coat of well rotted dung; or, if the soil be very light and sandy, of marle. The future crops, and the duration of the plants in health and vigor, will thus be greatly increased and prolonged. Hence it will appear that, for poor land, there is nothing equal to this grass in point of advantage to the farmer. Clover will last only two years in perfection; and often, if the soil be cold and moist, nearly half the plants will rot, and bald patches be found in every part of the field the second year. Besides, from our frequent rains

during September, many crops left for feeding are lost. But from the quantity and excellent quality of sainfoin, and its ripening earlier, and continuing in vigor so much longer, much risk and expense is avoided, and a large annual profit accrues to the farmer.

The writers on agriculture, ancient as well as modern, bestow the highest encomiums upon lucerne as affording excellent hay, and producing very large crops. Lucerne remains at least ten or twelve years in the ground, and produces about eight tons of hay upon the Scots acre. There is but little of it cultivated in Scotland. However, it has been tried in several parts of that country: and it is found that, when the seed is good, it comes up very well, and stands the winter frost. But the chief thing which prevents this grass from being more used in Scotland is the difficulty of keeping the soil open and free from weeds. In a few years the surface becomes so hard, and the turf so strong, that it destroys the lucerne before the plants have arrived at their greatest perfection; so that lucerne can scarcely be cultivated with success there, unless some method be fallen upon of destroying the natural grass, and preventing the surface from becoming hard and impenetrable. This cannot be done effectually by any other means than horse-hoeing. This method was first proposed by Tull, and afterwards practised successfully by M. de Chateaufvieux. That gentleman tried the sowing of lucerne both in rows upon the beds where it was intended to stand, and likewise the sowing it in a nursery, and afterwards transplanting it into the beds prepared for it. He prefers transplanting; because part of the tap-root is thus cut off, and the plant shoots out a number of lateral branches from the cut part of the root, which makes it spread its roots nearer the surface, and consequently renders it more easily cultivated; besides, this circumstance adapts it to a shallow soil, in which, if left in its natural state, it would not grow. This transplanting is attended with many advantages. The land may be prepared in summer for receiving the plants from the nursery in autumn; by which means the field must be in a much better situation than if the seed had been sown upon it in the spring. By transplanting, the rows can be made more regular, and the intended distances more exactly observed; and consequently the hoeing can be performed more perfectly, and with less expense. M. Chateaufvieux likewise tried the lucerne in single beds three feet wide, with single rows; in beds three feet nine inches wide, with double rows; and in beds four feet three inches wide, with triple rows. The plants in the single rows were six inches asunder, and those in the double and triple rows were about eight or nine inches. In a course of three years he found that a single row produced more than a triple row of the same length. The plants of lucerne, when cultivated by transplantation, should be at least six inches asunder, to allow them room for extending their crowns.

He further observes that the beds or ridges ought to be raised in the middle; that a small trench, two or three inches deep, should be drawn in the middle; and that the plants ought to be set in this trench, covered with earth up to the

neck. He says that if the lucerne be sown in spring, and in a warm soil, it will be ready for transplanting in September; that, if the weather be too hot and dry, the transplanting should be delayed till October; and that, if the weather be unfavorable during both these months, this operation must be delayed till spring. He further directs that the plants should be carefully taken out of the nursery, so as not to damage the roots; that the roots be left only about six or seven inches long; that the green crops be cut off within about two inches of the crown; that they be put into water as soon as taken up, and remain till they are planted; and that they should be planted with a planting-stick, in the same manner as cabbages. He does not give particular directions as to the times of horse-hoeing; but only says, in general, that the intervals should be stirred once in the month during the whole time that the lucerne is in a growing state. He likewise observes that great care ought to be taken not to suffer any weeds to grow among the plants, at least for the first two or three years; and, for this purpose, that the rows, as well as the edges of the intervals where the plough cannot go, should be weeded by the hand.

Burnet is peculiarly adapted to poor land, it proves an excellent winter pasture when hardly any thing else vegetates. It makes good butter; it never swells cattle; it is fine pasture for sheep; and will flourish well on poor, light, sandy, or stony soils, or even on dry chalk hills. The cultivation of it is neither hazardous nor expensive. If the land is prepared as is generally done for turnips, there is no danger of its failing. After the first year, it will be attended with very little expense, as the flat circular spread of its leaves will keep down, or prevent the growth of weeds. On the failure of turnips, either from the fly or black worm, some of our farmers have sown the land with burnet, and in March following had a fine pasture for their sheep and lambs. It will perfect its seed twice in a summer; and this seed is said to be as good as oats for horses; but it is too valuable to be applied to that use. It is sometimes sown late in the spring, with oats and barley, and succeeds very well; but it is best to sow it singly in the beginning of July, when there is a prospect of rain, on a small piece of land, and in October following transplant it in rows two feet apart, and about a foot distant in rows. This is a proper distance, and gives opportunity for hoeing the intervals in the succeeding spring and summer. After it is eaten down by cattle, it should be harrowed clean. Some horses will not eat it freely at first, but in two or three days they are generally very fond of it. It affords rich pleasant milk, and in great plenty. The severest frost never injures it, and the oftener it is fed upon, the thicker are its leaves, which spring constantly from its root.

PART II.

OF THE GRAZING SYSTEM.

Grazing, in a large sense, will comprehend the entire management of grass lands. These are obviously divided into *meadows*, or such perennial grass lands as are usually kept for a hay crop, and permanent *pastures*. The importance of

some system for their proper management being adopted will appear from the consideration that by far the greater part of the land of Great Britain is included in one or other of these descriptions. See *MEADOW*.

Of the culture of meadows.—The most luxuriant and valuable meadows are found in the bottom of valleys, and connected with one or more rivers of the neighbourhood: often indeed the entire growing soil has been washed down from adjoining highlands. This, of all other land, observe the Agricultural Reports of Staffordshire, is 'the most productive of grass and hay, yielding sustenance for cattle through the summer and the winter, and producing an everlasting source of manure for the improvement of the adjoining lands. In all cases of extensive enclosures, the improvement of the vale land, or that formed by nature for meadow and pasture, should be first attended to. In this view, the low lands in all situations come under the head of natural meadows. But river or *low meadows*, from their long retention of moisture, and the great depth of vegetable matter which they contain, are certainly liable to throw up coarse herbage; in many cases therefore more careful drainage, as well as other management, is necessary to bring them into proper condition for the growth of good herbage than is requisite in the hay grounds in more elevated places. The most proper season for surface-draining grass lands is autumn, when they are comparatively firm and dry; in the early spring months such lands are too full of moisture. The grips, or small open drains, should be cut obliquely in the most suitable directions for conveying off the superficial stagnant water. 'It is a practice, in some cases, to suffer the sods or grippings that are taken out of the trenches to remain on their sides; but it is much better, and a less slovenly mode, to have them conveyed from the land and laid up in heaps, in order to their being acted upon by the winter frosts and other causes, so as to be brought into a state proper for being formed into composts with well rotted farm-yard dung. Much of this sort of draining may be performed at a small expense, and the beneficial effects be very considerable, especially where the lands are very much loaded with moisture, in the quantity of produce.' Besides, such meadow lands 'demand much more attention in their management in other respects, as those of their being fed by cattle, and the performing of the different operations that are proper for rendering their productive of good herbage. In these cases stock should be turned upon the lands, and manures be applied with much care, and only when the land is in such a state of dryness as not to be injured by the poaching or breaking of the sward. The higher sorts of grass lands, in most instances, admit of considerably more latitude in performing these different operations, as they are capable of admitting the stock, as well as the dung-cart, more early in the spring months, and of suffering them to remain or be applied at later periods in the autumn without inconvenience. The advantage of this attention is rendered sufficiently plain by the effects which the contrary practice produces in such meadow and other hay lands as are in a state of commonage, where the stock

is admitted at all seasons, and under all circumstances.'

'In a piece of clayey meadow land,' mentioned in the Agricultural Report of Middlesex, 'which was exposed to the treading of cattle during the wet season of winter, with a view of fully ascertaining the effects of the practice of suffering cattle to remain too long upon grass hay lands, it was found that after three years, notwithstanding every possible care and attention in rolling, manuring, and sowing grass seeds, was employed, it was not restored to its former state of sward.' And it is said that, on the deep tough yellow clayey grass lands in this district, 'it is well known that wherever a bullock makes a hole with his foot, it holds water, and totally destroys every vestige of herbage; which is not quite replaced till several years after the hole is grown up.' Bog-meadows are drained and managed in a similar manner with other low meadows.

The upland meadows of Middlesex yield also some fine hay crops; being so well situated for receiving the manure of the metropolis. Here moss, mole-hills, and ant-hills, are the great enemies of the farmer: and the destruction of the latter is often a process of no small difficulty. It is said that where grass lands are sufficiently rolled with a heavy roller, once or oftener every year, no ant-hills will ever be formed greater than the roller can compress, and consequently no injury will be sustained. In this, as in most other cases of disease, observes Mr. Loudon, proper regimen is the best cure. 'In domestic economy, various directions are given for destroying bugs, lice, and other vermin; but who ever had any to destroy, who attended properly to cleanliness?'

With regard to the application of manure, we are told in the Middlesex Report, that almost all the grass lands in the county are preserved for hay, that the manure is invariably laid on in October, while the land is sufficiently dry to bear the driving of loaded carts without injury, and when the heat of the day is so moderated as not to exhale the volatile parts of the dung. Other agriculturists prefer applying it immediately after hay-time, or from about the middle of July to the end of August, said to be the 'good old time' (*Commun. to Board of Agriculture*, vol. iv. p. 138); others again from the beginning of February to the beginning of April (*Dickson's Practical Agriculture*, vol. ii. p. 915).

'The dairy farmers in North Wiltshire,' observes Mr. Davies, and in particular the graziers, are much more attentive to the quality than the quantity of their hay. They make a point of haining up their meadows as early as possible in autumn, and of course are able to mow early in the summer. It is not uncommon to see grass mown, not only before it is in blossom, but even before it is all in ear; and to this it is owing that it is more common to fat cattle with hay alone, in North Wilts, than perhaps in any country in the kingdom. And by this the dairy-men are able to keep up the milk of those cows that calve early, and from which calves are fatted, which otherwise shrink before the springing of the grass and never recover. And the advantage they get by early after-grass, and by the duration

of that after-grass to a late period in autumn, fully compensates for the loss of quantity in their hay crop.'

Dr. Anderson says it is in general understood that, if hay can be made so as to retain some tinge of its green color, it is better than if it were bleached white or rotted; but precautions are seldom thought necessary to be adopted for guarding against the effects of scorching sunshine, which, by too quickly exhaling its natural juices, renders it sticky, brittle, and unpalatable to a certain degree; and, what is of still more importance, the effects of rain, or even dew if abundant, if they are suffered to fall upon the grass after it is cut, and before it be made into hay, are seldom adverted to; so that if dry weather comes soon to exhale that wet, while the grass lies spread out upon the ground, the farmer feels little anxiety about the consequences; though it is a certain fact that no hay which has been in the least wetted during the process of hay-making can ever be made to have that sweet palatable taste it would have had without it. Nor has our author ever seen that beasts, when allowed to choose between hay so made and that which has been guarded from moisture, ever hesitated to make choice of the last, or committed a mistake, even where he himself could not distinguish a perceptible difference. But to obtain hay in all cases of the very best quality the circumstances will admit of, the following process, he says, may be safely conjoined with the practice of cutting and feeding beasts with grass in the house as above recommended. Where the produce of grass land is to be cut, as above described, and used green, it will be proper in general to reserve a part of it for hay. In this case the cutting for grass and for hay should be carried on together, but with the following variations, depending on the uses it is to be applied to. That part of the grass which is intended to be used green, as it will suffer no damage by being cut when wet, must continue to be cut regularly each day as it is wanted, without regard to the weather; whereas that part of it which is intended for hay ought on no account to be cut while wet; and, therefore, that part of the operation must be discontinued, unless when the weather is dry and fine; nor should it ever be cut either in the morning or the evening, while dew is upon it. And as the hay, in the mode proposed, ought to be made day by day, for a continuance, as the grass comes forward for the scythe, while the weather is in a proper state for it, and not all at one time, as in the usual mode of hay-making, the cutting both grass and hay from the same field may be very economically combined together. For this purpose the grass which is cut in the morning, while the dew may perhaps be upon it, and in the afternoon, ought to be appropriated to the beasts green; and that part of the grass only which is cut from nine till two o'clock, while the weather is dry and fine, should be made into hay. If the mower begins to cut down for hay about nine o'clock in the morning, and goes on in that operation till one or two in the afternoon; and, if the persons who are to put up the hay begin that operation about one, the grass will

thus be allowed to lie between three and four hours in the swathe, exposed to the sun, which will exhale some part of its moisture, and deaden it enough for the purposes required, though it still retains the whole of its nutritious juices without abatement. After being allowed to lie thus long it should be raked clean up, and carried off the field in the same cart that is employed for taking in the grass, and immediately put into the stack, so as that the whole grass that was cut that day shall be put up before evening; and thus regularly each good day throughout the season. But as grass, while in this green and succulent state, would not keep if put up by itself, care must be taken to provide some dry forage to mix with it. For this purpose nothing can be so proper as good dry hay; but, for want of that, at the beginning, good straw may be very safely employed. Our author once saved a great quantity of clover hay, being a late third cutting, when the season was too far advanced to admit of its being made in the usual way, by putting it up when new cut, thus intermixed with a large proportion of good straw. It kept perfectly well; and, when cut down and given to the beasts, was relished by them better than any other hay he had, and was equally valuable for every purpose.

Every part of the management in Middlesex, with regard to hay, has been acknowledged by able judges to be very superior. When the grass here is nearly fit for mowing, the farmer generally lets it out to be mown by the acre; calculating that a healthy man will mow from one and a-half to two acres a day, beginning very early in the morning. He provides five hay-makers to each mower, and they are expected to bring a fork and rake of their own. The course of operations that now takes place is thus described in the Middlesex Report:—

First day.—All the grass mown before nine o'clock in the morning is tedded, in which great care is taken thoroughly to loosen every lump, and to strew it evenly over all the ground. By this regular method of tedding grass for hay, the hay will be of a more valuable quality, heat more equally in the stack, consequently not so liable to damage or fire; will be of greater quantity when cut into trusses, and will sell at a better price; for, when the grass is suffered to lie a day or two before it is tedded out of the swathe, the upper surface is dried by the sun and winds, and the interior part is not dried, but withered, so that the herbs lose much, both as to quality and quantity, which are very material circumstances. Soon after the tedding is finished, the hay is turned with the same degree of care and attention: and if, from the number of hands, they are able to turn the whole again, they do so, or at least as much of it as they can, till twelve or one o'clock, at which time they die. The first thing to be done after dinner is to rake it into what are called single wind-rows; and the last operation of this day is to put it into grass-cocks.

Second day.—The business of this day commences with tedding all the grass that was mown the first day after nine o'clock, and all that was mown this day before nine o'clock. Next, the

grass-cocks are to be well shaken out into staddles (or separate plats) of five or six yards diameter. If the crop should be so thin and light as to leave the spaces between these staddles rather large, such spaces must be immediately raked clean, and the rakings mixed with the other hay, in order to its all drying of a uniform color. The next business is to turn the staddles, and after that to turn the grass that was tedded in the first part of the morning, once or twice, in the manner described for the first day. This should all be done before twelve or one o'clock, so that the whole may lie to dry while the work-people are at dinner. After dinner the first thing to be done is to rake the staddles into double wind-rows; next, to rake the grass into single wind-rows; then the double wind-rows are put into bastard-cocks; and, lastly, the wind-rows are put into grass-cocks. This completes the work of the second day.

Third day.—The grass mown and not spread on the second day, and also that mown in the early part of this day, is first to be tedded in the morning, and then the grass-cocks are to be spread into staddles as before, and the bastard-cocks into staddles of less extent. These lesser staddles, though last spread, are first turned, then those which were in grass-cocks; and next the grass is turned once or twice before twelve or one o'clock, when the people go to dinner as usual. If the weather has proved sunny and fine, the hay which was last night in bastard-cocks will this afternoon be in a proper state to be carried; but if the weather should, on the contrary, have been cool and cloudy, no part of it probably will be fit to carry. In that case the first thing set about after dinner is to rake that which was in grass-cocks last night into double wind-rows; then the grass which was this morning spread from the swathes into single wind-rows. After this the hay which was last night in bastard-cocks is made up into full-sized cocks, and care taken to rake the hay up clean, and also to put the rakings upon the top of each cock. Next, the double wind-rows are put into bastard-cocks, and the single wind-rows into grass-cocks, as on the preceding days.

Fourth day.—On this day the great cocks just mentioned are usually carried before dinner. The other operations of the day are such, and in the same order, as before described, and are continued daily until the hay harvest is completed.

Of the culture of pastures.—Dr. Anderson, in the third volume of his *Essays on Agriculture*, has some practical remarks on pastures, which we think worth perpetuating in our work:—‘It is stated,’ he says, ‘in the Agricultural Survey of Gloucestershire, that one acre of ryegrass, which had been saved from Michaelmas to May, kept nine ewes and lambs one month. We may, therefore, he adds, conclude that the produce of the same field, from May till Michaelmas, would have been double to that it yielded during the winter half year; consequently it could have sustained eighteen ewes and lambs one month. At this rate the acre of ground, during the whole year round, would have afforded food for twenty-seven ewes and lambs for one month. These were large

sheep, weighing about twenty-five pounds per quarter on the average. In the Survey of Wiltshire, it is said that 500 such ewes and lambs are sufficient to dung an acre each day when folded upon it; at that rate, says the Dr., twenty-seven of them should dung an acre in a little less than nineteen days; consequently, in thirty days, somewhat better than half an acre more. He is, however, inclined to think this would be but a very moderate dunging; but should double the quantity of dung, or more, be required for certain purposes on particular occasions, it will not, he says, affect the conclusions deducible from these facts in kind, only in degree. Hence, in his opinion, it follows, that if none of this dung were suffered to go to waste, an acre of good land laid down to grass, in high order, should afford as much dung as would be sufficient to dress each year an acre and a half of other land.

In the Agricultural account of Suffolk, it is stated that the rich marsh lands there keep at the rate of six sheep for seven summer months, and four for the five winter months per acre; that is, a little more than five sheep on an average per acre throughout the year. These are very large sheep, of which 800 would be equal to the 500 ewes and lambs above mentioned, and consequently would be sufficient to dung an acre in one day. But five times 365 makes 1825, the number of sheep kept for one day. At this rate one acre of these rich grass lands would afford as much dung in the course of one year, as should be sufficient to dung somewhat more than two acres and a quarter each year, if husbanded with due economy and attention.

But, as the sheep in neither of these cases are folded, the dung is suffered to drop in a scattered manner over the pastures, throughout the whole year. In this manner the influence of the dung must either be nothing; or it must produce certain effects upon the grass. It is well known that when sheep are folded upon grass ground, so as to deposit their dung upon it in considerable quantities all about one time, as in folding, the effect is, that a flush of grass is quickly produced over its whole surface, which is much more luxuriant and abundant than it would have been, had it not received this dressing. But it is well known, that the animals, whose dung has occasioned that flush of grass, nauseate it; nor can they be brought to taste it, unless they be compelled through hunger; although animals of another kind are seen to eat that kind of grass, not only without reluctance, but even with avidity. He thinks the extra flush of grass raised on the two acres and a half, that might be thus manured by the sheep fed on one acre, would be sufficient, on a moderate computation, to keep at the rate of two sheep per acre. By consequence, the extra grass produced by the dung of the sheep kept on one acre of this rich grass land, would be sufficient to keep four sheep and a half. But, to keep within bounds, say three sheep only could be kept by the grass produced from the dung of the sheep fed on one acre. If the dung be supposed to have the same effect in producing extra grass, when dropped from the animals as they pasture on the field, as it has when laid upon ground closely by means of folding,

it must follow, from these premises, that as much grass will grow from the dung upon each acre as would feed three sheep. But, as the sheep will not eat this kind of grass without constraint, the ground must either be so hard stocked as to compel them, through hunger, to eat that nauseous food, or that portion of the grass produced by the dung will be suffered to run to waste; so that, in either case, a considerable loss must be sustained by the owner. After some farther remarks our author adds, 'If these observations be well founded, what an amazing waste is sustained through the nation, by the loss of the dung thus uselessly scattered on the surface of pasture fields!'

The remedy which first presents itself in this case, he contends, is that of folding; and that, if properly managed, there are perhaps few cases in which it might not be put in practice, not only without detriment to the stock, but even to their advantage. All animals, but especially those that ruminate, choosing to feed and rest by turns. Ruminating animals require much time for rest; and, the more quiet they are allowed to be during that period, the better they will thrive. If these then are withdrawn from their pastures after they have properly filled their bellies, and when they become necessarily disposed to ruminate, they can sustain no damage by being put into a place where they can have no access to food. And if they be only as long detained there as till they have rechewed the food they have swallowed, and begin to feel an inclination to eat more, they will be benefited by this confinement, rather than otherwise. And they will thus all feed and rest at the same time.

Penning, however, under injudicious management, may tend to retard the feeding of the animals subjected to it. If the creatures be driven to a great distance from their pastures to the pen, it must subject them to a hurtful degree of fatigue; and this will be increased if they are made to pass through lanes, where they may be crowded by passengers, mired in dirt, or drenched in wet; or if they are neglected too long in the pen; or put up at improper times, &c. Therefore, to derive the full benefit from folding, where the pastures are of a great extent, there ought to be two or more folds placed close by the pasture, at convenient distances; so that the flocks, being gently conducted from one to the other, feeding all the way, might find themselves, when full, just at the place for rest. There they should be suffered to remain just so long as is found to be necessary to complete their ruminating process, and to prepare them for feeding afresh; they should then be suffered to rise and stretch themselves, when they naturally void their dung and urine on the spot. Thus will the dung be preserved, and the pastures be kept clean and sweet. They ought then to be led gently to the fresh pasture which they had not lately breathed upon, or trampled with their feet, and which of course will be to them sweet and inviting; they should thus be slowly conducted to their next resting place, feeding all the way; and so on till they go over the whole in a regular succession. If diseases be produced by suffering the animals to eat their food when covered with hoar frost, or dew, or mildew, or

at certain times of the day or night, when snails and other creatures are abroad, which they may swallow with their food, in all these cases, when observed, the evil may, by an attentive economist, be avoided by a judicious use of the fold. He may also withdraw the sheep from the pastures when they become restless and refuse to feed. In short, a judicious economist, by having folds properly situated, respecting the circumstances of shelter, coolness, water, and other conveniences, may avail himself of these for greatly promoting the health and enjoyment of the animals, and thus accelerating their feeding; so that, independent of the benefits he shall derive from their dung, he will in other respects reap considerable emolument.

Dr. Anderson observes that some persons contend that the pastures ought to be stocked very lightly; alleging that although much of the produce is thus allowed to run to seed, which the beasts will not eat, and which of course is trod under foot, and rotted by rain, and thus wasted; yet experience, they say, proves that a greater profit will be thus derived from it, upon the whole, on account of the superior thriving of the animals, than by any other practice. Others insist that lightstocking of grass land is a practice highly to be condemned; as it tends not only gradually to diminish its produce, but also to encourage the growth of coarse and unprofitable grasses, which deteriorate the pastures; and that hard stocking of grass lands, especially those of a rich quality, is an indispensable requisite of good management. These two opinions, so diametrically opposite, and which are equally maintained by sensible men, he thinks, clearly prove the embarrassment to which they are subjected, in consequence of their not having adverted to the circumstances stated above, and many other particulars, as affecting the economical consumption of the produce of lands in grass. A third party, he adds, who approach perhaps nearer to the truth than either, advise that a mixed stock should be always kept upon the same field; and that, were the consumption of the foul grass produced by the dung of the animals the only article to be adverted to, it might doubtless be so managed as to correct this evil. But there are so many circumstances to be adverted to, that it is not easy by these means to get them all remedied. In every field a variety of plants spontaneously spring up, some of which are disrelished by one class of animals, while they are eaten by others; and some of which, though eaten readily by some animals at one particular period of their growth, are rejected by them entirely at another. Thus it becomes necessary, not only to have a vast variety of animals in the same pasture, but also a very particular attention is required to augment or diminish the proportion of some of these classes of animals, at particular seasons of the year; otherwise some part of the produce will be allowed to run to waste, unless it be hard stocked to such a degree as to retard their thriving. But, if a great variety of animals be allowed to go at large in the same pasture, they are never suffered to feed with that tranquillity which is necessary to ensure thriving in the highest degree. One class of these wishes to feed, or to play,

while the others would incline to rest. They thus mutually disturb and tease each other; and this inconvenience is greatly augmented if penning of any sort be attempted. From these considerations the practice of intermixing various kinds of stock very much together is productive of evils in many cases greater than those which result from the waste of food they were intended to prevent. And though, by hard stocking, the grass will be kept shorter, and more palatable in general to the animals who eat it, than if it were allowed to run to a great length, yet as animals which are to be fattened must not only have sweet food, but an abundant bite at all times, to bring them forward in a kindly manner, it seems to be nearly impossible to obtain at the same time both these advantages in the practice of pasturage.

Might not these evils, says our author, be greatly diminished, if not entirely remedied, in many cases, by having the produce cut by the scythe, and given to the animals fresh in the house; rather than to suffer them to go at large and eat the produce on the field, even under any system of management whatever? Many arguments, he thinks, tend to show that this practice is, in general, highly economical and advantageous. 1. If the consumption of plants be the object principally attended to, it is plain the benefits will be great; for experience has clearly proved that there are many plants which are greedily consumed by beasts, if cut and given to them in the house, which never would be touched by them when growing in the field. Of this nature is the dock, cow-parsley, thistles, nettles, and many other plants. Upon what principle it should happen that these plants should be so readily eaten when thus given, while they are totally rejected when in the field, he cannot say; but that they are thus eaten, without reluctance, even when the animal is not hurtfully hungry, is evident from this circumstance, that the beasts often fall greedily to these at the moment they are brought in from the field, even before they have had time to become hungry after they had come in. Fewer plants would be rejected or suffered to go to waste on this plan. 2dly. Many of even the best kinds of grasses, which when young form the most palatable food for the creatures, if once suffered to get into ear; are disrelished so much as never to be tasted by them unless to prevent starvation; and as, in most pasture fields, many of these grasses get into ear from various causes, all the produce of these plants is inevitably lost to the farmer. But if cut down by the scythe, in proper time, not one of these is ever suffered to get into that nauseating state; and consequently no waste is sustained. 3dly. But when animals are suffered to go upon the field, many of the plants are trodden under foot by the beasts, and bruised or buried in part of the earth; in which state they are greatly disrelished by them, and are suffered to run to waste; which never would take place were the practice of cutting adopted generally. Lastly. Those few plants which are totally disrelished by one class of animals, will not, from this circumstance, become less acceptable to others, but much the reverse. Food that an animal has breathed upon, for any considerable time, be-

comes unpleasant to other animals of the same class; but not so to those of another species; it seems indeed thus to acquire for them a higher relish. Even greater defilement by one animal seems to render food more acceptable to others; for straw, that in its clean state has been rejected by cattle, if employed as litter for horses, acquires a relish for cattle that they search for with avidity. Hence the sweeping of the stalls from one animal furnishes a dainty repast for those of another kind; which can easily be shifted from one to the other, if the plants are consumed in the house, but which must have been lost in the field.

If, adds this author, the health and the comfort of the animal be chiefly adverted to, the balance will be clearly in favor of the cutting system, when compared with that of pasturing. When animals are exposed to the sun, in the open air, they are not only greatly incommoded on many occasions by the heat, but also are annoyed by swarms of flies, gnats, and hornets, particularly by the gad-fly, which drives them into a state of fury, and must retard their thriving. At other times they are hurt by chilling blasts, or drenched by cheerless rain, which renders their situation very unpleasant, and greatly retards their feeding. Under proper management, in a well constructed stall, all these evils would be removed, and they would be kept perpetually in a proper state of coolness, tranquillity, and ease, so as to make the same quantity of food go farther than it otherwise could have done in nourishing them. They would also be prevented from licking up snails, worms, and other noxious creatures, among their food, which they are by pasturing apt to do, when they feed at those times of the day or night when those creatures crawl abroad. This would be entirely avoided by cutting the grass at those times of the day when none of these are to be found. Thus lingering diseases might often be avoided, which always retard the thriving, and often prove the destruction of the animal. And by giving an opportunity of administering dry and nourishing food along with the soft and succulent, and by varying the tastes, so as to provoke an appetite, not only the health, but the thriving of the creatures, would be greatly augmented beyond what they could have been in any other way.

But, if manure is to be chiefly attended to, there can be no comparison between the two modes of consumption. This is so greatly in favor of stall-feeding, that it would be idle to spend time in proofs of a proposition that may be considered as self-evident and certain. And lastly, if the quantity of *herbage* produced from the same field be adverted to, it will be found to be equally in favor of the cutting system. All animals delight more to feed on the young fresh shoots of grass, than those that are older. Hence those patches in a pasture field that happen to have been eaten once bare, in the beginning of the season, are kept very short ever afterwards throughout the whole of that season, by the creatures delighting to feed upon them in preference to the parts of the field that have got up to a greater head; so that these last are suffered to remain in a great measure untouched throughout the season. It is not, however, in general

known, that grass, even the leafy parts of it, when it has attained a certain length, becomes stationary; and, though it will retain its verdure for some months in that state, makes no sort of progress whatever; whereas, if it had been cropped down frequently, it would have continued in a constant state of progress, advancing with a rapidity in a great measure proportioned to the frequency of its being cropped. For experimental proofs of this fact, see our author's *Essay on Agriculture and Rural Affairs*, Vol. II. *Disquis. V.*

'I have often,' says he, 'seen lawns around gentlemen's houses that have been under a course of continued shaving from time immemorial, that discovered no symptoms of exhaustion, nor any sensible diminution of luxuriance or verdure, though no manures of any sort had ever been laid upon them. This fact struck him as important; and he applied for information respecting this particular, to a gardener who had the charge of very extensive lawns of this sort, belonging to a gentleman of large property. He assured him that, for upwards of thirty years that he had had the care of the lawns, some parts of them which had been laid down long before he knew them, and were originally, as he supposed, of a rich quality, had never received during all that time the smallest quantity of manure of any sort; and that the lawn continued to be equally close in the pile, equally verdant at all seasons in the year, and required to be as often cut as ever; and that, in short, he had no reason to apprehend that the quantity of its produce had diminished in the smallest degree.' This seems to our author a strong presumptive proof that grass land, when once of a rich quality, may be continued for an indefinite length of time under the scythe, without being at all deteriorated, even when it gets no return of dung. And as the Doctor has shown that rich grass land, under pasturage, produces as much dung as ought to manure each year more than double its own extent of surface; it follows that, if the same quantity of grass land will only furnish as many beasts in the house, as if it were pastured upon (and it will do much more), there can be annually obtained from each acre of land kept under the scythe as much dung as might manure two acres more, which might be abstracted from that grass land without deteriorating it. Of course, if the land be such as that it can admit of being made richer, a dressing of that dung, now and then returned upon itself, would give it the richness wanted, without any extraneous aid. In this point of view, then, it seems to be impossible to deny that rich land, if kept under the scythe, can never become poorer, if none of the dung made by the beasts fed upon it be abstracted from it; but that, on the contrary, it can thus be made to afford a large annual supply of dung for the purpose of enriching poorer land, while it still continues to be fertile itself in the same degree. He also remarks, there seems to be no doubt but that the quality of the grass must continue to improve while under the scythe, much more than while under pasturage. Every person, says he, who has bestowed the smallest attention to objects of this sort, must have re

marked that the worst kind of grasses grow most freely upon those parts of rich grass lands that are the most open and spongy in their texture; and that they are in general much sweetened in the pile where they chance to be much trod upon. Hence the finest grasses on such fields always abound most upon paths which are moderately trod upon; white clover, and the sweetest grasses, being seen there in abundance, while they are less frequent in the spongy parts of the field. But frequent rolling tends to produce this effect more universally and equally than any kind of treading by beasts.

In confirmation of this, the observations of Mr. Davies, in his Account of the Agriculture of Wiltshire, may be quoted. He says that 'the sweetness of the feed depends much more on its being kept close, and eaten as fast as it shoots, than on any peculiar good quality of the grass itself; for there are many downs that, when close fed, appear to be a very sweet pasture, but which, if suffered to run a year or two without a full stock on them, will become so coarse that sheep will almost as soon starve as eat the grass: and even in those parts of the downs, where the finer and sweeter grasses abound, the soil is frequently so loose and porous, that nothing but constant treading will prevent them from dying out, or being choked by the larger and coarser grasses.' It is farther remarked, by Mr. Davies, that in consequence of too light stocking, heath, in some cases, comes in the place of the better grasses. But, says Dr. Anderson, it is very evident that all the purposes of hard stocking, that is, keeping the grass short, and in a continual state of vegetation, and consequently sweet, and preventing the coarser grasses from running up to stalk and overpowering the others, together with the consolidating of the ground by treading, would be obtained with much greater certainty by the practice of mowing; while the animals that consumed the produce could in no case be subjected to a stint of food, which they necessarily must sometimes be, where reliance is had upon hard stocking for preventing this evil.

Our able essayist observes that the terms sweetness of pasture, and sweet kinds of grass, frequently occur in agricultural writings; yet it is doubtful, if ever they have been properly defined. He therefore here attempts to supply this defect. Those pastures which animals choose to feed upon in preference to others, and which in general are eaten down close to the ground, are said to be sweet pastures, he observes, in contradistinction to those where the grass, being disrelished, is suffered to grow to a greater length, and often to wither in part, without being touched; which are called coarse, or, if tending to dampness, sour pasture. Without entering into a disquisition concerning the circumstances that tend to produce this sweetness, which are various, he considers that, from whatever cause it originates, it is a universal rule, that in every case the younger the grass is, the sweeter and more palatable it will be to beasts of every sort; and that the same weight of food will go much farther in nourishing or fattening an animal, if it be very pleasing to the palate of the animal to which it is given, than if it had been less tooth-

some. For, as a certain quantity of food is required for the mere sustenance of every animal, if that quantity be daily administered to it, and no more, the creature will barely subsist, but will never return any profit to the farmer. But, if the beast shall get a greater quantity of food than this portion which is barely necessary for subsistence, that surplus food then goes to augment the size, and to fatten the animal, and of course yields a profit to the farmer in proportion to its quantity.

As to *weeding*, the dock-weeder will be found a useful implement for taking out that mischievous perennial by the roots; nettles and other weeds may be cut with spades, or mown over; while some of the rushes and fern are best killed by hoisting the stem. Mosses greatly molest old pastures; and rich composts, harrowing, and drainage, are often necessary to be applied. The Code of Agriculture says that, 'to keep grass in good condition, a dressing of from thirty to forty cubic yards or cart-loads of compost is required every four years. The application of unmixed putrescent manure will thus be rendered unnecessary, which ought at least to be avoided, in meadows appropriated for the feeding of dairy cows, from its affecting the quality of the milk.' p. 476.

An eminent agriculturist observes that there seems to be a season, some time during the year, when grass lands, particularly old turf, should be eaten very close, not merely for the sake of preventing waste, but also for the purpose of keeping down the coarser kinds of plants, and giving to the pastures as equal and fine a sward as possible. The most proper period must partly depend upon the convenience of the grazier; but it can hardly be either immediately before the drought of summer or the frost of winter. Some time in autumn, when the ardent heat of the season is over, and when there is still time for a new growth before winter, may be most suitable for the land itself, and generally also for the grazier, his fat stock being then mostly disposed of, or carried to the after grass of mown grounds. The sweeping of pastures with the scythe may be employed as a substitute for this close feeding; the waste and labor of which, however, though they be but trifling, it does not seem necessary to incur on rich grazing lands, under correct management. Under the system of *fogging* pasture lands, fields in pasture are shut up early in May, and continued in that state till November or December, when the farmer's stock is turned in, and continue to pasture till the May succeeding. Such management, however, can only be advisable on a soil of the driest nature.

The chief improvements of which mountainous pastures are susceptible, according to Mr. Loudon, are those of draining and sheltering by plantations. 'Some parts might probably be enclosed by strips of plantation between stone walls, or by stone walls alone; but, as the stock on mountain pastures are generally under the care of a herdsman, the advantages of change of pasture, and alternate eating down and saving or sparing the grass, by keeping out the cattle, are obtainable without the use of fields.' But, in the words of an able contemporary, 'except in regard to those

necessary operations that have been already noticed—such as the extirpation of weeds and noxious shrubs, clearing away ant and mole-hills, &c., there are few points respecting the management of this kind of land on which some difference of opinion does not prevail. The time of stocking—the number of the animals, and whether all should be of one or of different species—the extent of the enclosures—and the propriety of eating the herbage close, or leaving it always in a rather abundant state—are all of them questions which it is scarcely possible to decide in a satisfactory manner by the application of general rules. Mr. Marshal states that, in all cases where fattening cattle or dairy cows make a part of the stock, and where situation, soil, and water will permit, every suit of grazing grounds ought to consist of three compartments. One for head stock (as cows or fattening cattle); one for followers (as rearing and other lean stock); and the third to be shut up to freshen, for the leading stock.—*Marshal's Yorkshire*, vol. ii. p. 158.

PART III.

OF THE CONVERTIBLE OR ALTERNATE SYSTEM.

The Board of Agriculture, under the direction of government, was long engaged in an enquiry 'into the best means of converting portions of grass lands into tillage, without exhausting the soil, and of returning the same to grass, after a certain period, in an improved state, or at least without injury: and, while the author of the supplemental article on Agriculture in the *Encyclopædia Britannica* thinks the industry of the Board was ill-directed, much information was certainly collected by this means. Sir John Sinclair is confident that a 'much larger proportion of the United Kingdom than is at present so cultivated, might be subject to the alternate system of husbandry, or transferred from grass to tillage, and then restored to grass. Much of the middling sorts of grass lands, from 200 to 400 feet above the level of the sea, is of this description; and all well-informed husbandmen, and friends to the general prosperity of the country, regret that such lands are left in a state of unproductive pasturage, and excluded from tillage.

There are lands, however, respecting which it seems the general testimony was, that they ought never to be thus broken up; as strong clays, unfit for barley or turnips; soft clayey loams, with a clayey or marly sub-soil; and the deeper valley or river meadows, most of which improve annually while kept under good grazing management. The grass lands of Lincolnshire are instanced as the richest altogether in the kingdom. They let from £1 15s. to £3 per acre, and the value of the produce is from £3 to £10, per acre, arising from the beef, mutton, and wool, obtained, subject to little variation from the nature of the seasons. The stock maintained per acre on the best grazing lands surpasses what could be fed by any arable produce; it being not uncommon to feed at the rate of from six to seven sheep in summer, and two sheep in winter. The sheep, when put on the grass, may weigh from 18 lbs. to 20 lbs. per quarter, and the increase of weight

would be at the rate of 4 lbs. per quarter, or 16 lbs. per sheep. But suppose in all only 100 lbs. at 8d. per pound, that would amount to £3 17s. 10d. The wool would be worth about two guineas more, besides the value of the winter keep; and the total may be stated at about £7 per acre, got at little expense. Such lands cannot be better employed. From other causes, very light land, where sheep are both bred and fed, must, in part at least, be left as permanent pasture: and those of the county of Norfolk are here adduced in proof. Great injury has been sustained, we are told, by breaking up permanent pastures on such soils, more especially when subject to rectorial *tithes*: lands of an inferior soil, which kept two sheep on an acre, paying only vicarial tithes, and rented at 10s. per acre, since they have been broken up cannot pay, even without rent, both the tithe of corn and the expense of cultivation. In general it may be allowed that a farm lets best with a fair proportion of grass land upon it, which admits of a mixed management.

Under the following particulars are given, in the Code of Agriculture, the result of the information communicated to the Board: i. e. whether any previous steps are necessary before lands in grass are broken up; the proper mode of effecting that object; the course of crops; the manure necessary: the system of management during the rotation; the mode of laying down the land again to grass; that of sowing the grass-seeds; and the subsequent management.

1. If the land be wet, it is said to be advisable to drain it completely, previous to its being broken up; as it is not improbable that its being kept in pasture was partly on that account. Land that long has been in pasture does not require dung during the first course of crops that is taken after being broken up; but the application of calcareous manure is always, in such cases, expedient. Sometimes lime is spread on the ground before it is ploughed; at other times when it is either under summer fallow, or a drilled crop of turnips. Marl and chalk also have been used for the same purpose with great advantage. The land thence derives additional strength and vigor; the succeeding crops are much improved; the soil is commonly so softened in its texture that it may be ploughed with half the strength that would otherwise be necessary; and, whenever it is restored to grass, the herbage is abundant.

2. Wherever the soil is not too shallow, or friable, or when the turf cannot soon be rotted, if land is to be broken up from old pasture, paring and burning is the proper system. In this way good tilth is speedily procured; the damage that might otherwise be sustained by the grub, the wire-worm, and other insects, is avoided, while the soil receives a stimulus which ensures an abundant crop. Where paring and burning, from any circumstance, cannot take place, the land may be trenched or double-ploughed. This is effected by means of two ploughs following each other, the first plough taking off a thin surface of about three inches, and the second going deeper in the same place, covering the surface-sod with fine mould; both

furrows not exceeding the thickness of the vegetable mould or other good soil. If the land is ploughed with one furrow, the operation ought to be performed before winter, that it may receive the benefit of the succeeding frosts, by which the success of the future operations will not only be promoted, but most of the insects lodged in the soil will be destroyed. When one furrow alone is taken, the best size is four inches and a half deep by eight or nine broad. The strain on horses in ploughing ley land is mostly from the depth.

3. The rotation of crops to be adopted, when grass lands are broken up, must partly depend upon the soil, and partly on the manner in which it is prepared for cultivation. As a general principle, however, it may be laid down, that unless by the course of cropping to be pursued the bad grasses and other plants indigenous in the soil are extirpated, they will, when the land is again laid down to grass, increase and prevail with more rapidity and effect than seeds chosen by the farmer; and the consequence must be, a heavy disappointment to the future crops of grass, perhaps solely, or at least principally, attributable to a previous defective management. It is necessary, therefore, to enter into details upon this subject. The process of conversion in *clayey* soils should be commenced with paring and burning, especially where the grub is suspected. The following course may then be adopted:—1. Rape fed with sheep; 2. Beans; 3. Wheat; 4. Beans; 5. Wheat; 6. Fallow; 7. Wheat, sown with grass-seeds. This may seem severe cropping, but is justified by experience when old grass clay land is broken up. If the land has not been pared and burnt, the first crop ought to be either oats or dibbled beans. To do justice to the plan of restoring the land to grass, there ought to be, in all cases, according to the soil, either a naked or turnip fallow, before the sowing of grass-seeds be attempted. But on mellow loamy clay land, consisting of fine old grass pasture, where it is thought necessary or advisable to break up such land, it should be done in detached pieces, so as to suit the convenience of the occupier, and the following course should be adopted:—1. Autumnal ploughing for oats in spring; 2. Fallow for rape, to be eaten with sheep; 3. Beans; 4. Wheat, sown with clover; 5. Clover; 6. Clover; 7. Wheat; 8. Rape, to be partially eaten, and hoed in spring, and to stand for seed; and, 9. Wheat with grass-seeds. This is a very profitable rotation, and applicable to the best grazing land in Lincolnshire. As to chalk: Paring and burning is considered in this case to be indispensable as a preparation for turnips, which ought, where manure can be got, to be raised two years in succession; then barley, clover, wheat; and, after one or two additional crops of turnips, the land may be laid down with sainfoin to great advantage. Peat: On this soil paring and burning are essentially necessary. Under a judicious system, the greatest and quickest profit is thus secured to the farmer, with advantage to the public, and without injury to the landlord. Draining also must not be neglected. The crops to be grown on peat

soils are, 1. Rape or potatoes; 2. Oats; 3. Turnips; 4. Oats or wheat; and, 5. Clover, or grass-seeds. A liberal application of lime, where it can be obtained, is of the greatest service in enabling such soils to bring corn to its full perfection. In the fens of Thorney, the following course was recommended:—1. Paring and burning for rape; 2. Oats; and, 3. Wheat with grass-seeds; if the land was safe from water, the Lammis sort, if not spring wheat. This short course, it is contended, preserves the land in heart; and it afterwards produces abundant crops of grass. But long courses, in such a soil, run the lands to weeds and straw, without quality in the grain. Loam: The courses of crops applicable to this soil are too numerous to be here inserted. If the sward be friable, the following rotation may be adopted:—1. Oats; 2. Turnips; 3. Wheat or barley; 4. Beans; 5. Wheat; 6. Fallow or turnips; 7. Wheat or barley, and grass-seeds. If the sward be very tough and coarse, instead of taking oats, it may be pared and burnt for turnips. Sand: On rich and deep sandy soils, the most valuable crop that can be raised is carrots. For inferior sands, turnips, to be eaten on the ground, then to be laid down with barley and grass-seeds.

4. According to the improved system of laying down lands to grass, they ought to be previously made as clean and fertile as possible. With that view, all the green crops raised ought to be consumed upon the ground; fallow or fallow crops ought not to be neglected; and the whole straw of the corn crops should be converted into manure, and applied to the soil that produced it. Above all, the mixing of calcareous matter with the soil, either previous to, or during the course of cropping, is essential; and nothing generally improves meadows or pastures more than lime or marl.

5. It is disputed whether grass-seeds should be sown with or without corn. In favor of the first practice, that of uniting the two crops, it is maintained that, where equal pains are taken, the future crop of grass will succeed equally well as if they had been sown separately, while the same tilth answers for both. On the other hand it is observed, that as the land must, in that case, be put into the best possible order, there is a risk that the corn crop will grow so luxuriantly, as to overpower the grass-seeds, and, at any rate, will exclude them from the benefit of the air and the dews. If the season also be wet, a corn-crop is apt to lodge, and the grass will, in a great measure, be destroyed. On soils moderately fertile, the grasses have a better chance of succeeding; but then, it is said, that the land is so much exhausted by producing the corn-crops, that it seldom proves good grass land afterwards. In answer to these objections, it has been urged that where, from the richness of the soil, there is any risk of sowing a full crop of corn, less seed is used, even as low as one-third of the usual quantity; and that a moderate crop of grain nurses the young plants of grass, and protects them from the rays of a hot sun, without producing any material injury. Where the two crops are united, barley is the preferable grain, except on peat. Barley has a tendency to loose

the texture of the ground in which it grows, which is favorable to the vegetation of grass-seeds. In the choice of barley, that sort should be preferred which runs least to straw, and which is the soonest ripe. On peat, a crop of oats is to be preferred. The manner of sowing the grass-seeds requires to be particularly attended to. Machines have been invented for that purpose, which answer well, but they are unfortunately too expensive for the generality of farmers. It is said to be a bad system to mix seeds of different plants before sowing them, in order to have the fewer casts. It is better to sow each sort separately, for the expence of going several times over the ground is nothing, compared to the benefit of having each sort equally distributed. The seeds of grasses, being so light, ought never to be sown in a windy day, except by machinery, an equal delivery being a point of great consequence. Wet weather ought likewise to be avoided, as the least degree of poaching is injurious. Grass-seeds ought to be well harrowed, according to the nature of the soil.

6. When the corn is carried off, the young crop of grass should be but little fed during autumn, and that only in dry weather; but heavily rolled in the following spring, in order to press the soil home to the roots. It is then to be treated as permanent pasture. By attention to these particulars, the far greater proportion of the meadows and pastures in the kingdom, of an inferior, or even medium quality, may be broken up, not only with safety, but, as we are told, with great profit.

PART IV.

OF THE CULTIVATION OF PLANTS THAT ARE ARTICLES OF COMMERCE.

These in general are such as cannot be used for food; and are principally flax, hemp, rape, hops, and timber of various kinds.

Of flax and hemp.—Flax is cultivated not only with a view to the common purposes of making linen, but for the sake of its seed also; and thus forms a most extensive article of commerce, all the oil used by painters, at least for common purposes, being extracted from this seed. See *FLAX, FLAX-DRESSING, and LINUM*. The cake which remains after the extraction of the oil is in some places used as a manure, and in others sold for fattening of cattle. In the vale of Gloucester, Mr. Marshal informs us that it is, next to hay, a main article of stall-fattening; though the price is often great. Hence some individuals have been induced to try the effect of lint-seed itself boiled to a jelly, and mixed with flour, bran, or chaff, with good success; and even the oil itself has been tried for the same purpose in Herefordshire. Though this plant is in universal culture over the whole kingdom, yet it appears, by the vast quantity imported, that by far too little ground is employed in that way; as Mr. Marshal takes notice of its culture only in Yorkshire, and here, he tells us, its cultivation is confined to a few districts. The kind cultivated is that called 'blea-line,' or the blue or lead-colored flax, and this requires a rich dry soil for its cultivation.

A deep, fat, sandy loam is perhaps the only soil on which it can be cultivated with advantage. If sown upon old corn land, it ought to be well cleaned from weeds, and rendered perfectly friable by a summer fallow. Manure is seldom or ever set on for a line crop; and the soil process consists generally of a single ploughing. The seed time is May, but much depends on the state of the soil at the time of sowing. 'It should neither be wet nor dry; and the surface ought to be made as fine as that of a garden-bed. Not a clod of the size of an egg should remain unbroken.' Two bushels of seed are usually sown upon an acre; the surface, after being harrowed, is sometimes raked with garden or hay-rakes; and the operation would be still more complete if the clods and other obstructions, which cannot be easily removed, were drawn into the interfurrows. A light hand-roller used between the final raking and harrowing would much assist this operation. The chief requisite during the time of vegetation is weeding, which ought to be performed with the utmost care; and for this reason it is particularly requisite that the ground should be previously cleansed as well as possible, otherwise the expence of weeding becomes too great to be borne, or the crop must be considerably injured. It is an irreparable injury, if, through a dry season, the plants come up in two crops; or if by accident or mismanagement they be too thin. The goodness of the crop depends on its running up with a single stalk without branches; for wherever it ramifies there the length of the line terminates; and this ramification is the consequence of its having too much room at the root, or getting above the plants which surround it. The branches are never of any use, being unavoidably worked off in dressing; and the stem itself, unless it bear a due proportion to the length of the crop, is likewise worked off among the refuse. The ramification of the flax will readily be occasioned by clods on the ground when sown. A second crop is very seldom attended with any profit; for, being overgrown with the spreading plants of the first crop, it remains weak and short, and at pulling time is left to rot upon the land.

Flax is injured not only by drought, but by frost, and is sometimes attacked, even when got five or six inches high, by a small white slug, which strips off the leaves to the top, and the stalks bending with their weight are thus sometimes drawn into the ground. Hence, if the crop does not promise fair at-weeding time, our author advises not to bestow further labor and expence upon it. A crop of turnips or rape will generally pay much better than such a crop of flax. The time of flax harvest in Yorkshire is generally in the latter end of July, or beginning of August. On the whole, our author remarks, that 'the goodness of the crop depends in some measure upon its length; and this upon its evenness and closeness upon the ground. Three feet high is a good length, and the thickness of a crow's quill a good thickness. A fine stalk affords more fine and fewer shivers than a thick one. A tall thick set crop is therefore desirable. But, unless the land be good, a thick crop cannot attain a sufficient length of stem. Hence the

folly of sowing flax on land which is unfit for it. Nevertheless, with a suitable soil, a sufficiency of seed evenly distributed, and a favorable season, flax may turn out a very profitable crop. The flax crop, however, has its disadvantages; it interferes with harvest, and is generally believed to be a great exhauster of the soil, especially when its seed is suffered to ripen. Its cultivation ought therefore to be confined to rich grass-land districts, where harvest is a secondary object, and where its exhaustion may be rather favorable than hurtful to succeeding arable crops, by checking the too great rankness of rich fresh broken ground.

In vol. ii. of Bath Papers, a Dorsetshire gentleman, who writes on the culture of hemp and flax, gives an account somewhat different from that of Mr. Marshal. Instead of exhausting crops, he maintains that they are both ameliorating crops if cut without seeding; and, as the best crops of both are raised from foreign seed, he is of opinion that there is little occasion for raising it in this country. A crop of hemp, he insists, prepares the land for flax, and is therefore clear gain to the farmer. 'That these plants impoverish the soil,' he repeats, 'is a mere vulgar notion, devoid of all truth. The best historical relations, and the verbal accounts of honest ingenious planters, concur in declaring it to be a vain prejudice, unsupported by any authority; and that these crops really meliorate and improve the soil.' He is likewise of opinion that the growth of hemp and flax is not necessarily confined to rich soils, but that they may be cultivated with profit also upon poor sandy ground, if a little expense be laid out in manuring it. 'Spalding Moor in Lincolnshire is a barren sand; and yet with proper care and culture it produces the best hemp in England, and in large quantities. In the Isle of Axholme, in the same county, equal quantities are produced; for the culture and management of it is the principal employ of the inhabitants; and, according to Leland, it was so in the reign of Henry VIII. In Marshland the soil is a clay or strong warp, thrown up by the river Ouze, and of such a quality that it cracks with the heat of the sun, till a hand may be put into chinks; yet, if it be once covered with the hemp or flax before the heats come on, the ground will not crack that summer. When the land is sandy, they first sow it with barley, and the following spring they manure the stubble with horse or cow dung, and plough it under. Then they sow their hemp or flax, and harrow it in with a light harrow, having short teeth. A good crop destroys all the weeds, and makes it a fine fallow for flax in the spring. As soon as the flax is pulled, they prepare the ground for wheat. Lime, marl, and the mud of ponds, is an excellent compost for hemp lands.' Our author takes notice of the vast quantity of flax and hemp, not less than 11,000 tons, imported formerly into Britain; and complains that it is not all raised in the island. He observes that the greater part of those marshy lands lying to the west of Mendip hills are very proper for the cultivation of hemp and flax; and if laid out in this manner could not fail of turning out highly advantageous both to the land-

holders and the public at large. 'The vast quantities of hemp and flax,' says he, 'which have been raised on lands of the same kind in Lincolnshire marshes, and the fens of the Isle of Ely and Huntingdonshire, are a full proof of the truth of my assertion. Many hundreds of acres in the above mentioned places, which for pasturage or grazing were not worth more than 20s. or 25s. per acre, have been readily let at from £2 to £4.

Choice of the soil, and preparing the ground. — A skilful flax-raiser always prefers in Scotland, we are told, a free open deep loam, and all grounds that produced the preceding year a good crop of turnips, cabbages, potatoes, barley, or broad clover, or have been formerly laid down rich, and kept for some years in pasture. A clay soil, the second or third crop after being limed, will answer well for flax; provided, if the ground be still stiff, that it be brought to a proper mould, by tilling after harvest to expose it to winter frosts. All new grounds produce a strong crop of flax, and pretty free of weeds. When many mole-hills appear upon new ground, it answers the better for flax after one tilling. The seed ought never to be sown on grounds that are either too wet or dry, but on such as retain a natural moisture; and such grounds as are inclined to weeds ought to be avoided, unless prepared by a careful summer fallow. If the linseed be sown early, and the flax not allowed to stand for seed, a crop of turnip may be got after the flax that very year; the second year a crop of rye or barley may be taken; and the third year grass seeds are sometimes sown along with the lintseed. This is the method mostly practised in and about the counties of Lincoln and Somerset, where great quantities of flax and hemp are every year raised, and where these crops have long been capital articles. There old ploughed grounds are never sown with linseed, unless the soil be very rich and clean. A certain worm, called in Scotland the coup worm, abounds in new ploughed grounds, which greatly hurts every crop but flax. In small enclosures, surrounded with trees or high hedges, the flax, for want of free air, is subject to fall before it is ripe, and the droppings of rain and dew from the trees prevent the flax within the reach of the trees from growing to any perfection. Of preceding crops, potatoes and hemp are the best preparation for flax. In the fens of Lincoln, upon proper ground of old tillage they sow hemp, dunging well the first year; the second year hemp without dung; the third year flax without dung; and that same year a crop of turnip eat on the ground by sheep; the fourth year hemp with a large coat of dung; and so on successively. If the ground be free and open, it should be but once ploughed, and that as shallow as possible, not deeper than two inches and a half. It should be laid flat, reduced to a fine garden mould by good harrowing, and all stones and sods should be carried off. Except a little pigeon's dung for cold or sour ground, no other dung should be used preparatory for flax; because it produces too many weeds, and throws up the flax thin and poor upon the stalk. Before sowing, the bulky clods should be broken,

or carried off the ground; and stones, quickenings, and every other thing that may hinder the growth of the flax, should be carefully taken away.

Choice of seed.—The brighter in color, and heavier the seed is, so much the better; that which, when bruised, appears of a light or yellowish green, and fresh in the heart, oily, and not dry, and smells and tastes sweet, and not fusty, may be depended upon. Dutch seed of the preceding year's growth for the most part answers best; but it seldom succeeds if kept another year. It ripens sooner than any other foreign seed. Philadelphia seed produces fine lint and few bolls, because sown thick, and answers best in wet cold soils. Riga seed produces coarser lint, and the greatest quantity of seed. Scotch seed, when well winned and kept and changed from one kind of soil to another, sometimes answers pretty well; but should be sown thick, as many of its grains are bad, and fail. It springs well, and its flax is sooner ripe than any other; but its produce afterwards is generally inferior to that from foreign seed. A kind has been lately imported, called Memel seed; which looks well, is short and plump, but seldom grows above eight inches, and on that account ought not to be sown.

Method of sowing.—The quantity of lintseed sown should be proportioned to the condition of the soil; for if the ground be in good heart, and the seed sown thick, the crop will be in danger of falling before it is ready for pulling. In Scotland, from eleven to twelve pecks, Linlithgow measure, of Dutch or Riga seed, is generally thought sufficient for one acre; and about ten pecks of Philadelphia seed, which, being the smallest grained, goes farthest. Riga lintseed, and the next year's produce of it, is preferred in Lincolnshire. The time for sowing lintseed is from the middle of March to the end of April, as the ground and season answer; but the earlier the seed is sown, the less the crop interferes with the corn-harvest. Late sown lintseed may grow long, but the flax upon the stalk will be thin and poor. After sowing, the ground ought to be harrowed till the seed is well covered, and then (supposing the soil, as before mentioned, to be free, and reduced to a fine mould) it ought to be rolled. When a farmer sows a large quantity of lintseed, he may find it proper to sow a part earlier and part later, that in the future operations of weeding, pulling, watering, and grassing, the work may be the easier and more conveniently gone about. It ought always to be sown on a dry bed.

Weeding.—Flax ought to be weeded when the crop is about four inches long. If longer deferred, the weeders will so much break and bend the stalks that they will never perhaps recover their straightness again; and, when the flax grows crooked, it is more liable to be hurt in the rippling and swinging. Quicken-grass should not be taken up; for, being strongly rooted, the pulling of it always loosens a deal of the lint. If there is an appearance of a settled drought, it is better to defer the weeding, than by that operation to expose the tender roots of the flax to the drought. So soon as the weeds

are got out, they ought to be carried off the field, instead of being laid in the furrow, where they often take root again, and at any rate obstruct the growth of the flax in the furrows.

For the cultivation, natural history, dressing, importation, uses, &c., of hemp, see **CANNABIS** and **HEMP**.

We may subjoin in this place a few practical remarks on *rape* or *cole seed*. This, as well as lintseed, is cultivated for the purpose of making oil, and will grow almost any where. Mr. Hazard says that in the north of England the farmers pare and burn their pasture lands, and then sow them with rape after one ploughing; the crop commonly standing for seed. Poor clay, or stone brash land, will often produce from twelve to sixteen or eighteen bushels per acre, and almost any fresh or virgin earth will yield one plentiful crop; so that many in the northern counties have been raised, by cultivating this seed, from poverty to affluence. The seed is ripe in July, or the beginning of August; and the threshing of it out is conducted with the greatest mirth and jollity. The rape, being fully ripe, is first cut with sickles, and then laid thin upon the ground to dry; and, when in proper condition for threshing, the neighbours are invited, who readily contribute their assistance. The threshing is performed on a large cloth in the middle of the field, and the seed put into sacks and carried home. It does not admit of being carried from the field in the pod, to be threshed at home, and therefore the operation is always performed in the field; and, by the number of assistants procured on this occasion, a field of twenty acres is frequently threshed out in one day. The straw is burnt for the sake of its alkali, the ashes being said to equal the best kind of those imported from abroad. The proper time for sowing rape is June; and the land should, previously to the sowing, be twice well ploughed. About two pounds of seed are sufficient for an acre; and, according to our author, it should be cast upon the ground with only the thumb and two fore-fingers; for, if it be cast with all the fingers, it will come up in patches. If the plants come up too thick, a pair of light harrows should be drawn along the field length-ways and cross-ways, by which means the plants will be equally thinned; and, when the plants which the harrows have pulled up are withered, the ground should be rolled. A few days after, the plants may be set out with a hoe, allowing sixteen or eighteen inches distance betwixt every two plants.

Mr. Hazard strongly recommends the transplanting of rape, having experienced the good effects of it himself. A rood of ground, sown in June, will produce as many plants as are sufficient for ten acres; which may be planted out upon ground that has previously borne a crop of wheat, provided the wheat be harvested by the middle of August. One ploughing will be sufficient for these plants; the best of which should be selected from the seed-plot, and planted in rows two feet asunder, and sixteen inches apart in the rows. As rape is an excellent food for sheep, they may be allowed to feed upon it in the spring; or the leaves might be gathered, and

given to oxen or young cattle: fresh leaves would sprout again from the same stalks, which in like manner might be fed off by ewes and lambs in time enough to plough the land for a crop of barley and oats. Planting rape in the beginning of July, however, would be most advantageous for the crop itself, as the leaves might then be fed off in the autumn, and new ones would appear in the spring. Our author discommends the practice of sowing rape with turnips, as the crops injure one another. 'Those who look for an immediate profit,' says he, 'will undoubtedly cultivate rape for seed; but perhaps it may answer better in the end to feed it with sheep: the fat ones might cull it over first, and afterwards the lean or store-sheep might follow them, and be folded thereon: if this is done in autumn season, the land will be in good heart to carry a crop of wheat; or, where the rape is fed off in the spring, a crop of barley might follow. In either case, rape is profitable to the cultivator; and when it is planted, and well earthed round the stems, it will endure the severest winter; but the same cannot be advanced in favor of that which is sown broad cast.' In the Agricultural Survey of Kent it is remarked, that this seed is much cultivated on the poor lands of the eastern part of that county, under the same management as turnips. Sometimes, although rarely, it is sown for seed; but most commonly fed off with lean flocks of sheep. Cattle and sheep, when poor, are however very subject to be destroyed by eating greedily of this plant.

Of coriander, canary, and some other seeds.—Coriander is used in large quantities by distillers, druggists, and confectioners, and might be a considerable object to such farmers as live in the neighbourhood of great towns; but the price is very variable. In the fourth volume of Bath Papers, Mr. Bartley gives an account of an experiment made on this seed, which proved very successful. Ten perches of good sandy loam were sown with coriander in March. 3 lbs. of seed were sufficient for this spot; and the whole expense amounted only to 5s. 10d. The produce was 87 lbs. of seed, which, valued at 3d., yielded a profit of 15s. 11d. or £15 18s. 4d. per acre. He afterwards made several other experiments on a larger scale; but none of the crops turned out so well, though all of them afforded a good profit.

Canary seed has been cultivated in large quantities in the Isle of Thanet, where it is said they have had frequently twenty bushels to an acre. Mr. Bartley sowed half an acre of ground, the soil a mixture of loam and clay, but had only eight bushels and a half, or seventeen bushels per acre. With this produce, however, he had a profit of £4 2s. 3d. per acre.

In Kent, where this seed is much cultivated, Mr. Boys says, there are three kinds of tilths for it, viz. summer fallow, bean stubble, and clover lay; the last he considers the best. If the land is not very rich, a coat of rotten dung is frequently spread for it. Whether manured or not, the tillage necessary is to plough the land the first opportunity that offers after wheat-sowing is done; and, as soon as the land is tolerably dry in the spring, furrows are made about eleven or

twelve inches apart, and the seed is sown broadcast, about four or five gallons per acre, and well harrowed in. When the blade appears, and the rows are distinct, the intervals are immediately hoed with a Dutch hoe, and afterwards, in May or June, the hoeing is repeated with a common hoe: carefully cutting up every weed, and thinning the plants in the furrows, if they are too thick. It is cut in the harvest, which is always later than any corn crop, with a hook, called a twibil and a hink; by which it is laid in lumps, or wads, of about half a sheaf of each. The seed clings remarkably to the husk; and, to detach it, the crop must be left a long time on the ground to receive moisture sufficient to destroy the texture of the envelopment, otherwise it would be hardly possible to thresh out the seed. The wads are turned from time to time, to have the full benefit of the rains and sun.

Radish seed.—For this crop the land should be clean, full of manure, and ploughed a good depth in the early part of the winter. In Kent they cultivate the early short top, the salmon, and the turnip rooted. The seed is sown on furrows, about ten inches apart: in a dry time in the month of March, about two or three gallons per acre. As soon as the plants appear, every other row is cut up with a horse-hoe, leaving the rows twenty inches apart. When the plants get two or three rough leaves, they are hoed out in rows, and are then kept clean by repeated horse and hand-hoeing when necessary, leaving the plants at about eighteen inches distance. The crop is seldom fit to reap till October, and sometimes is out in the fields till Christmas, without receiving injury from wet weather: it being necessary that it should have much rain to rot the pods, that it may thresh well. The produce is from eight to twenty-four bushels per acre.

Spinach seed.—Two sorts of this seed are cultivated, the prickly and the round: both are sown in furrows, about twelve or fourteen inches apart; the prickly, six gallons per acre, and the round four. Early in March, when the plants have leaves about an inch or two in length, they are hoed out to the distance of four or five inches. When the crop is in full bloom, the greater part of the male plants are drawn out by hand, and given profitably to young pigs; by which operation the female plants have more room to grow, and perfect their seed. The crop, when ripe, is pulled up, and threshed in the field on a cloth, or carried to the barn for that purpose.

Of woad.—The use of woad in dyeing is well known (see *ISATIS* and *WOAD*), and the consumption is so great that the raising of the plant might undoubtedly be an object to a husbandman, provided he could get it properly manufactured for the dyers, and could overcome their prejudices. The growing of this plant was long in a manner monopolised in particular places, particularly at Keynsham near Bristol. Mr. Bartley informs us that, in a conversation he had with these growers, the latter asserted that the growth of woad was peculiar to their soil. This is a blackish heavy mould, with a

considerable proportion of clay; but works freely; that of Brislington, where Mr. Bartley resided, was a hazel, sandy loam: nevertheless, having sowed half an acre of this soil with woad seed, it throve so well that he never saw a better crop at Keynsham. Woad grows to the greatest advantage on a light black rich soil, which has a southern situation. Land intended for it should be dunged a year before it is sown with this plant, and made first to bear a crop of wheat, &c. This being taken off, three deep stirrings should be given with the plough, the first in November, and the other two in spring. It is often sown so early as in the beginning of April; but, when it is too cold at that period, the sowing must be deferred till May. In this climate, however, it is often not sown until some time later.

In some parts of Kent this plant is much cultivated. It is frequently sown on poor, stiff, and some chalky lands, in the proportion of ten or twelve lbs. of seed to the acre, and among beans before the last hoeing in the beginning of July. It requires no culture while growing, unless the land be full of weeds; in which case the weeds must be drawn out by the hand, or cut up with a narrow hoe. When the plants have produced their bloom up to the top of the stem, they are pulled up, then tied by a single stalk in small handfuls, and set up in a conical form to ripen. When thoroughly dry, the seed is shaken out on a cloth or into a tub, the plants being then bound with rope-yarn into bundles, each weighing 30 lbs.: sixty of these bundles make a load of woad, the price of which is generally from £4 to £10. The Keynsham growers are said to cultivate and prepare it in the best manner.

Of madder.—This is a plant also used by the dyers. See DYEING and RUBIA. It was formerly much cultivated in the eastern part of Kent: 'I am firmly persuaded,' says Mr. Boys, 'that good crops of excellent madder may be raised in Kent, on soils properly adapted for the purpose; and that it would be a profitable article of culture, if it were never under £3 per cwt., nor would the buyers be injured by a restriction to this price; but then the legislature must interfere to prevent the importation of the root from Holland, where it can be cultivated cheaper. Perhaps, (said he before the peace,) if that country should continue unfriendly to us, it might be good policy to encourage the growth of madder at home. I have many years been in the habit of cultivating it; but, from the low price at market, have been obliged to abandon it. There have been several modes of planting practised; but that which appears the best is to plant it in single rows, about two feet apart. The land should be perfectly clean from weeds, and have been well manured the preceding year, so that the dung may be well incorporated with the soil; which should be a fine deep, rich, sandy loam, without any redundancy of moisture. To prepare the land for planting, it should be ploughed in the autumn, to have the benefit of the winter's frost, and harrowed in dry weather in the spring, and then kept clean by horse-hoeing, until the plants are ready for drawing, which is usually by the end of May, or beginning of June: the

proper time is known by the plants having got to the height of ten or twelve inches from the ground, and having produced roots branching out from the bottom of the suckers which will be perceived by drawing up a few of them. When the suckers are in this state, all hands necessary for this work are to be provided, that the operation may proceed with every possible despatch. One acre requires about 20,000 plants. The plants should have about one-third of their tops cut off, and then their roots should be dipt in earth, or fine mould and water beaten together to the consistence of batter; which prevents the necessity of watering them. It requires one woman to dip the plants, two to carry and strew them in handfuls along the furrow, and about seven to follow the plough. The land should be ploughed with a strong turnwrest plough with six horses, twelve or fourteen inches deep: women attend to lay the plants about eight or nine inches apart in every other furrow, leaning off from the plough: by which, every time the plough returns, the row of plants laid in by women who follow the plough is covered with the earth of the furrow. The crop must be kept perfectly clean by the hoe and hand weeding during the summer months, and earthed up with the plough each autumn until the third after planting, when the roots are dug up by trenching the land two feet deep; two children attending each digger, in order to pick out the roots.

The most proper time to take up the roots is when they are about the size of a swan's quill; they then yield most dye, and are of course most proper for use; but the time when they arrive at this proper state depends not only on the nature of the soil in which they have been planted, but also on the good husbandry that has been bestowed on the land.

For Hops, see that article.

In Vol. II. of his Annals, Mr. Young informs us, that 'one profit of hop land is that of breaking it up. Mr. Potter grubbed up one garden, which failing, he ploughed and sowed barley, the crop great; then mazagan beans, two acres of which produced sixteen quarters and five bushels. He then sowed it with wheat, which produced thirteen quarters and four bushels and a half; but since that time the crops have not been greater than common. The same gentleman has had ten quarters of oats after wheat.' In the ninth volume there is an account of an experiment by Mr. Le Bland of Sittingbourne in Kent, of grubbing up twelve acres of hop ground. Part of the hops were grubbed up and mazagan beans sown in their stead; but the seed being bad, and the summer dry, the crop turned out very indifferent. Next year the remainder of the hops were grubbed up, and the whole twelve acres sown with wheat; but still the crops turned out very bad, owing to the wet summer of that year. It was next planted with potatoes, which turned out well; and ever since that time the crops have been good. This gentleman informs us that the person who had the hop ground above mentioned did not lose less by it than £1500.

The culture of hops seems to be confined in a

great measure to the southern counties of England; for Mr. Marshal mentions it as a matter of surprise that in Norfolk he saw a 'tolerably large hop garden.' The proprietor informed him that three or four years before there had been ten acres of hops in the parish (Blowfield), where he resided; which was more than could be collected in all the rest of the county; but at that time there were not above five; and the culture was daily declining; as the crops, owing to the low price of the commodity, did not defray the expense. It is clear enough that hops are the most uncertain and precarious crop on which the husbandman can bestow his labor. Mr. Young is of opinion that some improvement in the culture is necessary; but he does not mention any, excepting that of planting them in espaliers, a method long since recommended both by Mr. Rogers and Mr. Potter. The former took the hint from observing that a plant which had been blown down, and afterwards shot out horizontally, always produced a greater quantity than those which grew upright. He also remarks that hops which are late picked carry more next year than such as are picked early; for which reason he recommends the late picking. The only reason for picking early is that the hops appear much more beautiful than the others.

Of the cultivation of apples and pears.—In Herefordshire and Gloucestershire the cultivation of fruit, for the purpose of making a liquor from the juice, forms a principal part of their husbandry. In Devonshire also considerable quantities of this kind of liquor are made, though much less than in these two counties. For the cultivation, curing, and management of fruit trees in general, see HORTICULTURE.

The fruits cultivated in Herefordshire and Gloucestershire are the apple, pear, and cherry. From the two first are made the liquors named cyder and perry. See CYDER and PERRY. Mr. Marshal remarks that nature has furnished only one species of pears and apples, viz. the common crab of the woods and hedges, and the wild pear, which is also pretty common. The varieties of these fruits are entirely artificial, being produced not from seed, but by a certain mode of culture; whence it is the business of those who wish to improve fruit to catch at superior accidental varieties; and, having raised them by cultivation to the highest perfection of which they are capable, to keep them in that state by artificial propagation. Mr. Marshal, however, observes that it is impossible to make varieties of fruit altogether permanent, though their duration depends much upon management. 'A time arrives,' says he, 'when they can no longer be propagated with success. All the old fruits which raised the fame of the liquors of this country are now lost, or so far on the decline as to be deemed irrecoverable. The redstreak is given up; the celebrated stir-apple is going off; and the squash-pear, which has probably furnished this country with more champagne than was ever imported into it, can no longer be got to flourish; the stocks canker, and are unproductive. In Yorkshire similar circumstances have taken place; several old fruits which were

productive within my own recollection are lost; the stocks cankered, and the trees would no longer come to bear.' Our author controverts the common notion among orchard men that the decline of the old fruits is owing to a want of fresh grafts from abroad, particularly from Normandy, whence it is supposed that apples were originally imported into this country. Mr. Marshal, however, thinks that these original kinds have been long since lost, and that the numerous varieties of which we are now possessed were raised from seed in this country. At Ledbury he was shown a Normandy apple-tree, which, with many others of the same kind, had been imported immediately from France. He found it, however, to be no other than the bitter-sweet, which he had seen growing as a neglected wilding in an English hedge.

The process of raising new varieties of apples, Mr. Marshal says, is simple and easy. 'Select among the native species individuals of the highest flavor; sow the seeds in a highly enriched seed-bed. When new varieties, or the improvement of old ones, are the objects, it may be eligible to use a frame or stove; but, where the preservation of the ordinary varieties only is wanted, an ordinary loamy soil will be sufficient. At any rate, it ought to be perfectly clean at least from root weeds, and should be double dug from a foot to eighteen inches deep. The surface being levelled, and raked fine, the seeds ought to be scattered on about an inch asunder, and covered about half an inch deep with some of the finest mould previously raked off the bed for that purpose. During summer the young plants should be kept perfectly free from weeds, and may be taken up for transplantation the ensuing winter; or, if not very thick in the seed bed, they may remain in it till the second winter. The nursery ground ought also to be enriched, and double dug to the depth of fourteen inches at least; though eighteen or twenty are preferable. The seedling plants ought to be sorted agreeably to the strength of their roots, that they may rise evenly together, the top or downward roots should be taken off, and the longer side rootlets shortened. The young trees should then be planted in rows three feet asunder, and from fifteen to eighteen inches distant in the rows; taking care not to cramp the roots but to lead them evenly and horizontally among the mould. If they be intended merely for stocks to be grafted, they may remain in this situation until they are large enough to be planted out; though, in strict management, they ought to be re-transplanted two years before their being transferred into the orchard, 'in fresh but unmanured double-dug ground, a quincunx four feet apart every way.' In this second transplantation, as well as in the first, the branches of the root ought not to be left too long, but to be shortened in such a manner as to induce them to form a globular root, sufficiently small to be removed with the plant; yet sufficiently large to give it firmness and vigor in the plantation.

Having thus proceeded with the seed bed, our author adds the following directions:—'Select from among the seedlings the plants whose wood and leaves wear the most apple-like ap-

pearance. Transplant these into a rich deep soil in a genial situation, letting them remain in this nursery until they begin to bear. With the seeds of the fairest, richest, and best flavored fruit, repeat this process; and at the same time, or in due season, engraft the wood which produced this fruit on that of the richest, sweetest, best flavored apple; repeating this operation, and transferring the subject under improvement from one tree and sort to another, as richness, flavor, or firmness may require; continuing this double mode of improvement until the desired fruit be obtained. There has, no doubt, been a period when the improvement of the apple and pear was attended to in this country; and, should not the same spirit of improvement revive, it is probable that the country will, in a course of years, be left destitute of valuable kinds of these two species of fruit; which, though they may in some degree be deemed objects of luxury, long custom seems to have ranked among the necessities of life.

In the Bath Papers, Vol. IV., Mr. Grimwood supposes the degeneracy of apples to be rather imaginary than real. He says that the evil complained of 'is not a real decline in the quality of the fruit, but in the tree; owing either to want of health, the season, soil, mode of planting, or the stock they are grafted on being too often raised from the seed of apples in the same place or county. I have not a doubt in my own mind, but that the trees which are grafted on the stocks raised from the apple-pips are more tender than those grafted on the real crab-stock; and the seasons in this country have, for many years past, been unfavorable for fruits, which add much to the supposed degeneracy of the apple. It is my opinion that, if planters of orchards would procure the trees grafted on real crab-stocks from a distant country, they would find their account in so doing much overbalance the extra expence of charge and carriage.' In the same volume, Mr. Edmund Gillingwater assigns as a reason for the degeneracy of apples the mixture of various farina, from the orchards being too near each other. In consequence of this notion, he also thinks that the oldest and best kinds of apple-trees are not lost, but only corrupted from being planted too near bad neighbours: 'Remove them,' says he, 'to a situation where they are not exposed to this inconvenience, and they will immediately recover their former excellency.'

With regard to the method of cultivating fruit-trees, it is only necessary to add that, while they remain in the nursery, the intervals betwixt them may be occupied by such kitchen-stuff as will not crowd or overshadow the plants; keeping the rows in the mean time perfectly free from weeds. In pruning them, the leader should be particularly attended to. If it shoot double, the weaker of the contending branches should be taken off; but if the leader be lost, and not easily recoverable, the plant should be cut down to within a hand's breadth of the soil, and a fresh stem trained. The undermost boughs should be taken off by degrees, going over the plants every winter; but taking care to preserve heads of suffi-

cient magnitude not to draw the stems up too tall, which would make them feeble in the lower part. The stems in Herefordshire are trained to six feet high; but our author prefers seven, or even half a rood in height. A tall stemmed tree is much less injurious to what grows below it than a low headed one, which is itself in danger of being hurt, at the same time that it hurts the crop under it. The thickness of the stem ought to be in proportion to its height; for which reason a tall stock ought to remain longer in the nursery than a low one. The usual size at which they are planted out in Herefordshire is from four to six inches girt at three feet high; which size, with proper management, they will reach in seven or eight years. The price of these stocks in Herefordshire is eighteen pence each.

In Herefordshire it is common to have the ground of the orchards in tillage, and in Gloucestershire in grass; which Mr. Marshal supposes to be owing to the difference betwixt the soil of the two counties; that of Herefordshire being generally arable; and Gloucester grass land. Trees, however, are very destructive not only to a crop of corn, but to clover and turnips; though tillage is favorable to fruit trees in general, especially when young. In grass grounds their progress is comparatively slow, for want of the earth being stirred about them, and by being injured by the cattle, especially when low-headed and drooping. After they begin to bear, cattle ought by all means to be kept away from them, as they not only destroy all the fruit within their reach, but the fruit itself is dangerous to the cattle, being apt to stick in their throats and choak them. These inconveniences may be avoided by eating the fruit grounds bare before the gathering season, and keeping the boughs out of the way of the cattle; but Marshal is of opinion that it is wrong to plant orchards in grass land. 'Let them,' says he, 'lay their old orchards to grass; and, if they plant, break up their young orchards to arable. This will be changing the course of husbandry, and be at once beneficial to the land and to the trees.' Our author complains very much of the indolent and careless method in which the Herefordshire and Gloucestershire farmers manage their orchards.

Blight is a term, as applied to fruit trees, which Mr. Marshal thinks is not understood. Two bearing years, he remarks, seldom come together; and he is of opinion that it is the mere exhausting of the trees by the quantity of fruit which they have carried one year that prevents them from bearing any the next. The only thing therefore that can be done in this case is to keep the trees in as healthy and vigorous a state as possible. Insects destroy not only the blossoms and leaves, but some of them also the fruit, especially pears. Mr. Marshal advises to set a price upon the female wasps in the spring; by which these mischievous insects would perhaps be exterminated, or at least greatly lessened.

An excess of fruit stunts the growth of young trees, and renders all in general barren for two or three years; while in many cases the branches are broken off by the weight of the fruit; and in one case Mr. Marshal mentions that an entire

tree had sunk under its burden. To prevent as much as possible the bad effects of an excess of fruit, Mr. Marshal recommends to graft in the boughs, and when fully grown to thin the bearing branches; thus endeavouring, like the gardener, to grow fruit every year.

Though it is impossible to prevent the effects of old age, yet, by proper management, the natural life of fruit-trees may be considerably protracted. The most eligible method is to graft stocks of the native crab in the boughs. The decline of the tree is preceded by a gradual decline of fruitfulness, which long takes place before the tree manifests any sign of decay. During this decline of fruitfulness there is a certain period when the produce of a tree will no longer pay for the ground it occupies, and beyond this period it ought by no means to be allowed to stand. In the Vale of Gloucester, however, our author saw an instance of some healthy bearing apple trees, which then had the second tops to the same stems. The former tops, having been worn out, were cut off, and the stumps saw-grafted. Our author observes that the pear-tree is much longer lived than the apple, and ought never to be planted in the same ground. He concludes with the following general observation: 'Thus, considering fruit-trees as a crop in husbandry, the general management appears to be this; plant upon a recently broken up worn out sward. Keep the soil under a state of arable management, until the trees be well grown; then lay it down to grass, and let it remain in sward until the trees be removed, and their roots be decayed; when it will again require a course of arable management.'

Of cherries and filberts.—In Kent they prefer for this fruit a situation where there is a deep surface of loam upon the rock. But by some it is said that there is not any necessity for a great depth of soil. In respect to distance apart, cherry-trees require to be planted according to their sorts; a heart requiring double the distance of a duke or morello. But, when planted by themselves, they are generally placed from twenty to thirty feet distant, and are put somewhat deeper in the earth than apples; but in other respects the management is the same.

Cherry wine.—A cooling and pleasant drink is made from the juice of cherries when properly fermented. For making this liquor the cherries should hang upon the trees till they are thoroughly ripe, in order that their juices may be better perfected and enriched by the sun; and they should be gathered in dry weather. The juice is then pressed out, and a quantity of sugar proportioned to the intended strength of the wine is to be added, and the whole regularly fermented. When the wine is become fine it must be bottled for use.

Filberts are much cultivated in some parts of Kent. The soil best adapted for them is the stone shattery sandy loam of a quality somewhat inferior; as it is a disadvantage for the trees to grow with great luxuriance, they bearing most nuts when but moderately strong. If they are planted among hops, without apples or cherries, they are put about twelve feet apart; when the

hops are dug up, the filbert plantation is kept clean by repeated digging and hoeing; and great skill is necessary in pruning to make them bear well. It is indeed entirely owing to skill and management in this operation that the trees are rendered productive upon even a favorite soil. These trees are generally trained in the shape of a punch bowl, and never suffered to grow above five or six feet high, with short stems, like a gooseberry bush, and exceedingly thin of wood. If suffered to stand till ripe this fruit will keep good for several years in a dry room or closet; but when gathered they should be laid thin on the floor of a room where the sun can get in to dry them properly.

Of raising trees for timber and other purposes.—The importance and value of these is so well known that it is almost superfluous to say any thing on that subject: notwithstanding this acknowledged value, however, the growth of timber is so slow, and the returns for planting so distant, that it is generally supposed for a long time to be a positive loss, or at least to be attended with no profit. This matter, however, when properly considered, will appear in another light. There are four distinct species of woodlands, viz. woods, timber groves, coppices, and woody wastes. The woods are a collection of timber trees and underwood; and the coppices are collections of underwood alone. All these turn out to advantage sooner or later, according to the quick or slow growth of the trees, and the situation of the place with respect to certain local advantages. Thus in some places underwood is of great consequence, for rails, hoops, stakes, fuel, &c.; and by reason of its growth it may be accounted the most profitable of all plantations. An osier-bed will yield a return of profit the second or third year, and a coppice in fifteen or twenty years; while a plantation of oaks will not arrive at perfection in less than a century. This last period is so long that it may be supposed likely to deter people from making such plantations of this kind, as few are willing to take any trouble for what they are never to see in perfection. It must be remembered, however, that, though the trees themselves do not come to perfection in a shorter time, the value of the ground will always increase in proportion to their age. Mr. Pavier, in the Bath Papers, vol. iv., computes the value of fifty acres of oak timber in 100 years to be £12,100, which is nearly fifty shillings annually per acre; and, as this is continually accumulating without any of that expense or risk to which annual crops are subject, planting of timber may be accounted one of the most profitable articles in husbandry. Evelyn calculates the profit of 1000 acres of oak land in 150 years, at no less than £670,000. But it would be improper to occupy with timber of such slow growth the grounds which, either in grass or corn, can repay the trouble of cultivation with a good annual crop.

In the Bath papers, vol. iv., Mr. Wagstaffe recommends planting as an auxiliary to cultivation. He brings an instance of the success of Sir William Jerringham, who made trial of the most unpromising ground perhaps that any successful planter has hitherto attempted. His

method was to plant beech trees at proper distances among Scotch firs, upon otherwise barren heaths. 'These trees,' says Mr. Wagstaffe, 'in a soil perhaps without clay or loam, with the heathy sod trenched into its broken strata of sand or gravel, under the protection of the firs, have laid hold, though slowly, of the soil; and, accelerated by the superior growth of the firs, have proportionally risen, until they wanted an enlargement of space for growth when the firs were cut down.' He adds that, when the firs are felled, their roots decay in the ground; and thus furnish by that decay a new support to the soil on which the beeches grow; whereby the latter receive an additional vigor, as well as an enlargement of space and freer air; the firs themselves, though cut down before they arrived at their full growth, being also applicable to many valuable purposes.

In the Annals of Agriculture, vol. vi., we find the culture of trees recommended by Mr. Harries; and he informs us that the larch is the quickest grower and the most valuable of all the resinous timber trees; but, unless there be pretty good room allowed for the branches to stretch out on the lower part of the trunk, it will not arrive at any considerable size; and this observation, he says, holds good of all pyramidal trees. Scotch firs may be planted between them, and pulled out after they begin to obstruct the growth of the larch. Some of these larches he had seen planted about thirty years before, which, at five feet distance from the ground, measured from four feet to five feet six inches in circumference. The most barren grounds, he says, would answer for these trees, but better soil is required for the oaks. In this paper he takes notice of the leaves of one of his plantations of oaks having been almost entirely destroyed by insects; in consequence of which they did not increase in bulk as usual; but another, which had nearly escaped these ravages, increased at an average one inch in circumference. 'A tree four feet round,' says he, 'that has timber twenty feet in length, gains by this growth a solid foot of timber annually, worth one shilling at least, and pays five per cent. for standing. It increases more as the tree gets from five to six feet round. I have in my groves 3000 oaks that pay me one shilling each per annum, or £150 a year. My poplars have gained in circumference nearly two inches, and a Worcester and witch elm as much. I have lately been informed that the smooth cut of a holly tree, that measures twenty inches and upwards round, is worth to the cabinet makers 2s. 6d. per foot.'

The following table shows the increase of trees in twenty-one years from their first planting. It was taken from the marquis of Lansdowne's plantation, begun in 1765, and the calculation made on the 15th of July 1768. It is about six acres in extent, the soil partly a swampy meadow upon a gravelly bottom. The measures were taken at five feet above the ground; the small firs having been occasionally drawn for posts and rails, as well as rafters for cottages; and, when peeled of the bark, will stand well for seven years.

	Height in Feet.	Circumference in	
		Feet.	Inch.
Lombardy poplar	60 to 80	4	8
Arbeal . . .	50 to 70	4	6
Plane . . .	50 to 60	3	6
Acacia . . .	50 to 60	2	4
Elm . . .	40 to 60	3	6
Chestnut . .	30 to 50	2	9
Weymouth pines	30 to 50	2	5
Cluster ditto .	30 to 50	2	5
Scotch fir . .	30 to 50	2	10
Spruce ditto .	30 to 50	2	2
Larch . . .	50 to 60	3	10

From this table it appears that planting of timber trees, where the return can be waited for during the space of twenty years, will undoubtedly repay the original profits of planting, as well as the interest of the money laid out; which is the better worth the attention of a proprietor of land, that the ground on which they grow may be supposed good for very little else. From a comparative table of the growth of oak, ash, and elm timber, given in the Annals of Agriculture, vol. ii., it appears that the oak is by much the slowest grower of the three.

With respect to the growth of underwood, which in some cases is very valuable, it is to be remarked that, to have an annual fall of it, the whole quantity of ground, whatever its extent may be, ought to be divided into annual sowings. The exact number of sowings must be regulated by the uses to which it is intended to be put. Thus, if, as in Surrey, stakes, edders, and hoops are saleable, there ought to be eight or ten annual sowings; or if, as in Kent, hop poles are demanded, fourteen or fifteen will be required; and if, as in Yorkshire, rails be wanted, or, as in Gloucestershire, cordwood be most marketable, eighteen or twenty sowings will be necessary to produce a succession of annual falls. Thus the business, by being divided, will be rendered less burdensome; a certain proportion being every year to be done, a regular set of hands will, in proper season, be employed; and, by beginning upon a small scale, the errors of the first year will be corrected in the practice of the second, and those of the second in that of the third. The produce of the intervals will fall into regular course; and, when the whole is completed, the falls will follow each other in regular succession. The greatest objection to this method of sowing woodlands is the extraordinary trouble in fencing; but this objection does not hold if the sowings lie at a distance from one another; on the contrary, if they lie together, or in plots, the entire plot may be enclosed at once; and, if it contain a number of sowings, some subdivisions will be necessary, and the annual sowing of these subdivisions may be fenced off with hurdles, or some other temporary contrivance; but, if the adjoining land be kept under the plough, little temporary fencing will be necessary. But, in raising a woodland from seeds, it is not only necessary to defend the young plants against cattle and sheep.

but against hares and rabbits; so that a close fence of some kind is absolutely necessary.

With regard to the preparation of the ground for raising timber, if the soil be of a stiff clayey nature, it should receive a whole year's fallow; if light, a crop of turnips may be taken; but at all events it must be made perfectly clean before the tree seeds be sown, particularly from perennial root weeds; as, after the seeds are sown, the opportunity of performing this necessary business is in a great measure lost. If the situation be moist, the soil should be gathered into wide lands, sufficiently round to let the water run off from the surface, but not high. The time of sowing is either October or March; and the method as follows:—'The land being in fine order, and the season favorable, the whole should be sown with corn or pulse adapted to the season of sowing; if in autumn, wheat or rye may be the crop; but if in spring, beans or oats. Whichever of these species be adopted, the quantity of seed ought to be less than usual, to give a free admission of air, and prevent the crop from lodging. The sowing of the grain being completed, that of the tree seeds must be immediately set about. These are to be put in drills across the land; acorns and nuts should be dibbled in, but keys and berries scattered in trenches or drills drawn with the corner of a hoe, as gardeners sow their pease. The distance might be a quarter of a statute rod, or four feet and one inch and a half. A land chain should be used in setting out the drills, as not being liable to be lengthened or shortened by the weather. It is readily divided into rods; and the quarters may be easily marked.'

The species of underwood to be sown must be determined by the consumption of it in the neighbourhood. Thus, if stakes, hoops, &c., be in request, the oak, hazel, and ash, are esteemed as underwood. Where charcoal is wanted for iron forges, beech is the prevailing underwood. The oak, box, birch, &c., are all in request in different countries, and the choice must be determined by the prevailing demand. As the keys of the ash sometimes lie two or even three years in the ground, it will be proper to have the places where they are sown distinguished by some particular marks, to prevent them from being disturbed by the plough after harvest; as a few beans may be scattered along with them, if the crop be oats; or oats if the crop be beans. The crop should be reaped, not mown, at harvest time, and be carried off as fast as possible. Between harvest and winter a pair of furrows should be laid back to back in the middle of each interval, for meliorating the next year's crop, and laying the seedling plants dry; while the stubble of the unploughed ground on each side of the drills will keep them warm during the winter. The next year's crop may be potatoes, cabbages, turnips; or, if the first was corn, this may be beans; if the first was beans, this may be wheat drilled. In the spring of the third year the drills which rose the first year must be looked over, and the vacancies filled up from those parts which are thickest; but the drills of the ash should be let alone till the fourth year. The whole should afterwards be

looked over from time to time; and this, with cultivating the intervals, and keeping the drills free from weeds, will be all that is necessary until the tops of the plants begin to appear. The crops may be continued for several years; and, if they only pay for the expenses, they will still be of considerable advantage, by keeping the ground stirred, and preserving the plants from hares and rabbits. Even after the crops are discontinued, the ground ought still to be stirred, alternately throwing the mould to the roots of the plants, and gathering it into a ridge in the middle of the interval. The best method of doing this is to split the ground at the approach of winter, to throw it up to the trees on both sides; this will preserve the roots from frost; gather it again in the spring, which will check the weeds, and give a fresh supply of air; split again at midsummer, to preserve the plants from drought; gather, if necessary, in autumn, and split as before at the approach of winter. The spring and midsummer ploughings should be continued as long as a plough can pass between the plants.

Whenever the oaks intended for timber are in danger of being drawn up too slender for their height, it will be necessary to cut off all the rest at the height of about a hand-breadth above the ground; and those designed to stand must now be planted at about two rods distant from each other, and as nearly a quincunx as possible. The second cutting must be determined by the demand for the underwood; with this proviso, that the timber stands be not too much crowded by it; for, rather than this should be the case, the coppice should be cut, though the wood may not have reached its proper profitable state. What is here said of the method of rearing oak trees in woods is in a great measure applicable to that of raising other trees in timber groves. The species most usually raised in these are the ash, elm, beech, larch, spruce fir, Weymouth pine, poplar, willow, alder, chestnut, walnut, and cherry. The three last are used as substitutes for the oak and beech, and these two for the mahogany.

PART V.

OF THE MANAGEMENT OF LIVE STOCK.

As great part of the stock of a husbandman must always consist of cattle, and one of his principal expenses is in the maintenance of them, this part of his business is certainly to be looked upon as important. The cattle belonging to a farm may be divided into two classes, viz. such as are intended for work, and such as are designed for sale. The former are now principally horses. In the second volume of Bath Papers, we have an account of a comparative experiment of the utility of horses and oxen in husbandry, by Mr. Kedington of Bury, in which the preference is decisively given to oxen. He says that when he began the experiment, in 1779, he was almost certain that there was not an ox worked in the whole country: finding, however, the expense of horses very great, he purchased a single pair of oxen, but found much difficulty in breaking them, as the workmen were so much

prejudiced against them, that they would not take the proper pains. At last he met with a laborer who undertook the task; and the oxen 'soon became as tractable and as handy, both at ploughing and carting, as any horses.' On this he determined to part with all his cart horses; and when he wrote his letter (1781) he had not a single horse, nor more than six oxen; which inconsiderable number performed, with ease, all the work of his farm (consisting of upwards of 100 acres of arable land and sixty of pasture and wood), besides the statute duty on the highways, timber and corn, carting, harrowing, rolling, and every part of rural business. They are constantly shod; their harness is the same as that of horses (excepting the necessary alterations for difference of size and shape); they are driven with bridles and bits in their mouths, answering to the same words of the ploughman and carter as horses will do. A single man holds the plough, and drives a pair of oxen with reins: and our author informs us that they will plough an acre of ground in less than eight hours, or even in seven. The intervals of a small plantation, in which the trees are set in rows ten feet asunder, are ploughed by a single ox with a light plough, and he is driven by the man who holds it. The oxen go in a cart either single, or one, two, or three, according to the load. Four oxen will draw eighty bushels of barley or oats in a waggon with ease; and, if good of their kind, will travel as fast as horses with the same load. One ox will draw forty bushels in a light cart, which our author thinks is the best carriage of any. On the whole, he prefers oxen to horses for the following reasons:—1. They are kept at much less expense, never eating meal or corn of any kind. In winter they are fed with straw, turnips, carrots, or cabbages: or, instead of the three last, they have each a peck of bran per day while kept constantly at work. In spring they eat hay; and, if working harder than usual in seed-time, they have also bran. When the vetches are fit for mowing, they get them only in the stable. After the day's work in summer they have a small bundle of hay, and stand in the stable till they cool; after which they are turned into the pasture. Our author is of opinion that an ox may be maintained in condition for the same constant work as a horse for at least £4 less annually. 2. After a horse is seven years old, his value declines every year; and when lame, blind, or very old, he is scarcely worth any thing: but an ox in any of these situations may be fatted, and sold for even more than the first purchase; and will always be fat sooner after work than before. 3. Oxen are less liable to diseases than horses. 4. Horses are often liable to be spoiled by servants riding them without their master's knowledge, which is not the case with oxen. 5. A general use of oxen would make beef plentiful, and consequently all other meat; which would be a national benefit.

Mr. Marshal, in his Rural Economy of the Midland Counties, also shows the advantage of employing oxen in preference to horses, from the mere article of expense, which, according to his calculation, is enormous on the part of the horses.

He begins with estimating the number of square miles in England; and this he supposes to be 30,000 of cultivated ground. Supposing the work of husbandry to be done by horses only, and each square mile to employ twenty horses, which is about three to 100 acres, the whole number used throughout Britain would be 600,000; from which deducting one-sixth, for the number of oxen now employed, the number will be 500,000. Admitting that each horse works ten years, the number of farm-horses which die annually are 50,000; each of which requires full four years keep before he is fit for work. Horses indeed are broken in at three, some at two years old, but they are, or ought to be, indulged in keep and work till they are six; so that the cost of rearing and keeping may be laid at full four ordinary years. For all this consumption of vegetable produce he returns the community not a single article of food, clothing, or commerce; even his skin, for economical purposes, being barely worth the taking off. By working horses in husbandry, therefore, 'the community is losing annually the amount of 200,000 years keep of a growing horse; which, at the low estimate of £5 a-year, amounts to a million annually. On the contrary, supposing the business of husbandry to be done solely by cattle, and admitting that oxen may be fatted with the same expenditure of vegetable produce as that which old horses require to fit them for full work, and that, instead of 50,000 horses dying, 50,000 oxen, of only fifty-two stone each, are annually slaughtered; it is evident that a quantity of beef nearly equal to what the city of London consumes would be annually brought into the market; or 100,000 additional inhabitants might be supplied with one pound of animal food a-day each, without consuming one additional blade of grass.' 'Oxen,' adds Mr. Marshal, 'appear to be perfectly handy, and work, either at plough or cart, in a manner which shows that although horses may be in some cases convenient, and in most cases pleasurable to the driver, they are by no means necessary to husbandry. A convenience used in this country is a moveable harness-house, with a sledge bottom, which is drawn from place to place as occasion may require. Thus no labor is lost either by the oxen or their drivers. In Yorkshire oxen are still used, though in fewer numbers than formerly. The Yorkshire plough was formerly of such an unwieldy construction that four or six oxen, in yokes, led by two horses, were absolutely requisite to draw it; but the improvements in the construction of the plough have of late been so great that two horses are now sufficient for the purpose; so that, as Yorkshire has always been famous for its breed of horses, we are not to wonder at the present disuse of oxen.' For these and other reasons, the employment of oxen at all is to Mr. Marshal a convincing argument of their utility as beasts of draught. The timber carriers still continue to use them, even though their employment be solely upon the road. They find them not only able to stand working every day, but to bear long hours better than horses going in the same pasture. An ox in a good pasture soon fills his belly, and lies down to rest; but a horse can scarcely satisfy

his hunger in a short summer's night. Oxen are also much superior at a difficult pull to horses. Horses of draught cost, at four years old, from £20 to £30; they will, with extravagant keep, extraordinary care and attendance, and much good luck, continue to labor eight or ten years, and may then generally be sold for 5s. a-head. If we had no other species of animals adapted to the purposes of draught in the island, cart-horses would be very valuable. But it is evident that, were only a small share of the attention paid to the breeding of draught oxen which is now bestowed on the breeding of cart-horses, animals equally powerful, more active, less costly, equally adapted to the purposes of husbandry if harnessed with equal judgment, less expensive in keep and attendance, much more durable, and infinitely more valuable after they have finished their labors, might be produced. A steer, like a colt, ought to be familiarised to harness at two or three years old, but should never be subjected to hard labor until he be five years old; from which age, until he be fifteen or twenty, he may be considered as in his prime as a beast of draught. 'An ox,' says Mr. Marshal, 'which I worked several years in Surrey, might, at seventeen or eighteen years of age, have challenged, for strength, agility, and sagacity, the best bred cart-horse in the kingdom.'

Of horses, and the methods of breeding, rearing, and feeding them.—The midland counties of England have for some time been celebrated on account of their breed of the black cart-horse; though Mr. Marshal is of opinion that this kind are unprofitable as beasts of draught in husbandry. The present improvement in the breed took its rise from six Zealand mares sent over by the late lord Chesterfield during his embassy at the Hague. These mares being lodged at his lordship's seal at Bretby in Derbyshire, the breed of horses thus became improved in that county, and for some time it took the lead for the species of these animals. As the improved breed passed into Leicestershire, however, through some unknown circumstances, it became still more improved; and Leicester has for some time taken the lead. It is now found, however, that the very large horses formerly bred in this district are much less useful than such as are of a smaller size. Mr. Marshal describes in lofty terms one of these large horses, a stallion belonging to Mr. Bakewell, which, he says, was the handsomest horse he ever saw. 'He was,' says he, 'the fancied war-horse of the German painters; who, in the luxuriance of imagination, never perhaps excelled the natural grandeur of this horse. A man of moderate size seemed to shrink behind his fore end, which rose so perfectly upright, that his ears stood (as Mr. Bakewell says every horse's ears ought to stand) perpendicularly over his fore feet. It may be said, with little latitude, that in grandeur and symmetry of form, viewed as a picturable object, he exceeded as far the horse which this superior breeder had the honor of showing to his majesty, and which was afterwards shown publicly at London, as that horse does the meanest of the breed.' A more useful horse, bred also by Mr. Bakewell, however, is described as having 'a thick carcass, his back

short and straight, and his legs short and clean; as strong as an ox, yet active as a poney; equally suitable for a cart or a lighter carriage.'

The stallions in this country are bred either by farmers or by persons whose business it is to breed them, and who therefore have the name of breeders. See EQUUS and HORSE. These last either cover with them, or let them out to others for the season, or sell them. The prices given for them are from fifty to 200 guineas by purchase; from forty to eighty or 100 by the season; or from half a guinea to two guineas by the mare. Mr. Marshal owns that this breed of horses are a profitable species of live stock, and, as far as there is a market for six-years-old-horses of this breed, it is profitable to agriculture. 'But,' says he, 'viewing agriculture in general, not one occupier in ten can partake of the profit; and, being kept in agriculture after they have reached that profitable age, they become indisputably one of its heaviest burdens. Even the brood mare, after they have passed that age, may, unless they be of a very superior quality, be deemed unprofitable to the farmer.'

Mr. Marshal complains that the ancient breed of Norfolk horses is almost entirely worn out. They were small, brown muzzled, and light boned, but they could endure very heavy work, with little food: two of them were quite equal to the plough in the soil of that county, which is not deep. The present breed is produced by a cross with a large one of Lincolnshire and Leicestershire already mentioned. He approves of the Suffolk breed, which, he says, are a 'half-horse, half-hog race of animals, but better adapted to the Norfolk husbandry than the Leicestershire breed;' their principal fault, in his opinion, is a flatness of the rib. In the Vale of Gloucester most farmers rear their own plough horses. They are of a very useful kind, the color mostly black, inclinable to tan color, short and thick in the barrel, and low on their legs. The price of a six-year-old horse from £25 to £35. Some cart horses are bred in Cotswold hills; the mares are worked till the time of foaling, but not while they suckle; and the foals are weaned early, while there is plenty of grain upon the ground. Yorkshire, which has been long celebrated for its breed of horses, still stands foremost in that respect among the English counties. It is chiefly remarkable for the breed of saddle horses, which cannot be reared in Norfolk, though many attempts have been made for that purpose. Yorkshire stallions are often sent into Norfolk; but, though the foals may be handsome when young, they lose their beauty when old. In Yorkshire, on the other hand, though the foal be ever so unpromising, it acquires beauty, strength, and activity as it grows up. Mr. Marshal supposes that from 5000 to 10,000 horses are annually bred up between the eastern Morelands and the Humber. In the breeding of horses he complains greatly of the negligence of the Yorkshire people, the mares being almost totally neglected; though in the brute creation almost every thing depends upon the female. With regard to the general maintenance of horses, our author recommends the Norfolk management of horses as the cheapest method of feeding them practised any where. In winter, when little

work is to be done, their only rack-meat is barley-straw; a reserve of clover-hay being usually made against the hurry of seed-time. A bushel of coru in the most busy season is computed to be an ample allowance for each horse, and in more leisure times a much less quantity suffices. Oats and sometimes barley, when the latter is cheap and unsaleable, are given; but in this case the barley is generally malted, i. e. steeped and afterwards spread abroad for a few days, until it begin to vegetate, when it is given to the horses, and is supposed to be less heating than in its natural state. Chaff is universally mixed with horse corn; the great quantities of corn grown in this country afford in general a sufficiency of *natural* chaff; the chaff, or rather the awns of barley, which in some places are thrown as useless to the dunghill, are here in good esteem as provender. This method of keeping horses, which Mr. Marshal approves of in the Norfolk farmers, is practised, and probably has been so from time immemorial, in many places of the north of Scotland; and is found abundantly sufficient to enable them to go through the labor required. In summer they are in Norfolk kept out all night, generally in clover leys; and in summer their keep is generally clover only, a few tares excepted.

In the *Annals of Agriculture*, vol. iv., Mr. Young gives an account of the expenses of keeping horses; which, notwithstanding the vast numbers kept in the island, seem still to be very indeterminate, as the informations he received varied no less than on his own farm of the expense of horses kept from £8 to £25 a year. From accounts kept for no other purpose than that of agriculture he stated the average of the whole at £11 12s. 3d. On the discordant accounts he received, Mr. Young observes that many of the extra expenses depend on the extravagance of the servants; while some of the apparent savings depend either on their carelessness, or stealing provender from their beasts privately. He concludes, however, that 'the more exactly the expense of horses is examined into, the more advantageous will the use of oxen be found.' Every day's experience convinces me more and more of this. If horses kept for use alone, and not for show, have proved thus expensive to me, what must be the expense to those farmers who make their fat sleek teams an object of vanity? It is easier conceived than calculated.'

Notwithstanding all these strong arguments, urged by Mr. Young, Mr. Henry Harper, an eminent Lancashire farmer, in a comparative view of the expense of the purchase and keep of three horses and three oxen for one year, makes a balance of £44 0s. 6d. in favor of horses. But in the calculation he states 49s. per week, or £127 8s. a year, for gain by his horse team.

The Suffolk punch is a very useful animal for labor, according to Culley. 'Their color is mostly yellowish or sorrel, with a white ratch or blaze on their faces; the head large, ears wide, rauzzle coarse, fore-end low, back long but very straight, sides flat, shoulders too far forward, hind quarters middling but rather high about the hips, legs round and short in the pasterns, deep-

bellied and full in the flank. Here, perhaps, lies much of the merit of these horses; for we know, from observation and experience, that all deep-bellied horses carry their food long, and consequently are enabled to stand longer and harder days' works. However, certain it is that these horses do perform surprising days' works. It is well known that the Suffolk and Norfolk farmers plough more land in a day than any other people in the island; and these are the kind of horses every where used in those districts.'—Culley on Live Stock, p. 27.

Another horse in high repute for labor with the farmers in Scotland, and the north of England, is the Clydesdale: it is probably equal, says Mr. Cleghorn, to any other breed in Britain

Of the breeding and rearing of cattle.—These are reared for two different purposes, viz. for work, and for slaughter. For the former purpose Mr. Marshal remarks that it is necessary to procure a breed without horns. This he thinks would be no disadvantage, as horn, though for merely an article of some request, is now of very little value. The horns are useless to cattle in their domestic state, though nature has bestowed them upon them as weapons of defence in their wild state; and our author is of opinion that it would be quite practicable to produce a hornless breed of black cattle as well as of sheep, which last has been done by attention and perseverance; and there are now many hornless breeds of sheep in Britain. Nay, he insists that there are already three or four breeds of hornless cattle in the island; and that there are many kinds of which numbers of individuals are hornless, and from these, by proper care and attention a breed might be formed. The first step is to select females; and, having observed their imperfections, to endeavour to correct them by a well chosen male.

The other properties of a perfect breed of black cattle for the purposes of the dairy as well as others, according to Mr. Marshal, are as follows:—1. The head small and clean, to lessen the quantity of offal. 2. The neck thin and clean, to lighten the fore end as well as to lessen the collar and make it sit close and easy to the animal in work. 3. The carcass large, the chest deep, and the bosom broad, with the ribs standing out full from the spine; to give strength of frame and constitution, and to admit of the intestines being lodged within the ribs. 4. The shoulders should be light of bone, and rounded off at the lower point, that the collar may be easy, but broad to give strength; and well covered with flesh for the greater ease of draught, as well as to furnish a desired point in fating cattle. 5. The back ought to be wide and level throughout; the quarters long; the thighs thin, and standing narrow at the round bone; the udder large when full, but thin and loose when empty, to hold the greater quantity of milk; with large dug veins to fill it, and long elastic teats for drawing it off with greater ease. 6. The legs, below the knee and hock, straight, and of a middle length; their bones, in general, light and clean from fleshiness, but with the joints and sinews of a moderate size, for the purposes of strength and activity. 7. The flesh ought to be

mellow in the state of fleshiness, and firm in the state of fatness. 8. The hide mellow and of a middle thickness.

As the milk of cows is an article of great importance, it is an object to the husbandman, if possible, to prevent the waste of that useful fluid which in the common way of rearing calves is unavoidable. A method of bringing up these young animals at less expense is proposed by the duke of Northumberland. His plan is to make skimmed milk answer the purpose of that which is newly drawn from the teat; and which, he supposes, might answer the purpose at one-third of the expense of new milk. The articles to be added to the skimmed milk are treacle and the common linseed oil cake, ground very fine, and almost to an impalpable powder: the quantities of each being so small that to make thirty-two gallons would cost only sixpence, besides the skimmed milk. It mixes very readily, and almost intimately, with the milk, making it more rich and mucilaginous, without giving it any disagreeable taste. The recipe for making it is as follows:—Take one gallon of skimmed milk, and to about a pint of it add half an ounce of treacle, stirring it until it is well mixed; then take one ounce of linseed oil cake finely pulverised, and with the hand let it fall gradually in very small quantities into the milk, stirring it in the mean time with a spoon or ladle until it be thoroughly incorporated; then let the mixture be put into the other part of the milk, and the whole be made nearly as warm as new milk when it is first taken from the cow, and in that state it is fit for use. The quantity of the oil-cake powder may be increased as occasion requires, and as the calf becomes inured to its flavor.

On this subject Mr. Young remarks that, in rearing calves, there are two objects of great importance. 1. To bring them up without any milk at all; and, 2. To make skimmed milk answer the purpose of such as is newly milked or sucked from the cow. In consequence of premiums offered by the London Society, many attempts have been made to accomplish these desirable purposes; and Mr. Budel, of Wanborough in Surrey, was rewarded for an account of his method. This was to give the calves a gruel made of ground barley and oats. But Mr. Young, who tried this method with two calves, assures us that both of them died. When in Ireland he had an opportunity of purchasing calves at three days old from 1s. 8d. to 3s. each; by which he was led to repeat the experiment many times over. This he did in different ways, having collected various recipes. In consequence of these he tried hay tea, bean meal mixed with wheat flour, barley and oats ground nearly but not exactly in Mr. Budel's method; but the principal one was flax seed boiled into a jelly, and mixed with warm water: this being recommended more than all the rest. The result of all these trials was that, out of thirty calves, only three or four were reared; these few were brought up with barley and oatmeal, and a very small quantity of flax seed jelly: one only excepted, which at the desire of his coachman was brought up on a mixture of two-thirds of

skimmed milk and one-third of water, with a small addition of flax seed jelly well dissolved. The second object, namely, that of improving skimmed milk, according to the plan of the duke of Northumberland, seems to be the more practicable of the two. Mr. Young informs us that it has answered well with him for two seasons; and two farmers to whom he communicated it gave likewise a favorable report.

In vol. iii. of the same work we are informed that the Cornwall farmers use the following method in rearing their calves:—They are taken from the cow from the fourth to the sixth day; after which they have raw milk from six to ten or fourteen days. After this they feed them with scalded skimmed milk and gruel made of shelled oats, from three quarts to four being given in the morning, and the same in the evening. The common family broth is thought to be better than the gruel. The proportion of gruel or broth is about one-third of the milk given them. A little fine hay is set before them, which they soon begin to eat.

In vol. v. of Bath Papers, we have an account by Mr. Crook of a remarkably successful experiment in rearing calves without milk at all. This gentleman, in 1787, weaned seventeen calves; in 1788, twenty-three; and in 1789 fifteen. In 1787 he bought three sacks of linseed, value £2 5s. which lasted the whole three years. One quart of it was put to six quarts of water; which, by boiling ten minutes, was reduced to a jelly; the calves were fed with this mixed with a small quantity of tea made by steeping the best hay in boiling water. By the use of this food three times a day, he says that his calves throve better than those of his neighbours which were reared with milk.—These unnatural kinds of food, however, are in many cases apt to produce a looseness, which in the end proves fatal to the calves. In Cornwall they remedy this sometimes by giving acorns as an astringent; sometimes by a cordial of which opium is the basis. In Norfolk the calves are reared with milk and turnips; sometimes with oats and bran mixed among the latter. Winter calves are allowed more milk than summer ones; but they are universally allowed new milk, or even to suck.

According to Parkinson there seem to be two distinct kinds of Welsh cattle. 'The large sort are of a brown color, with some white on the rump and shoulders, denoting a cross from the long horns, though in shape not the least resembling them. They are long in the legs, stand high according to their weight, are thin in the thigh, and rather narrow in the chine; their horns are white and turned upwards; they are light in flesh, and, next to the Devons, well formed for the yoke; have very good hoofs, and walk light and nimble. The other sort is much more valuable; color black, with very little white; of a good useful form, short in the leg, with round deep bodies; the hide is rather thin, with short hair; they have a likely look and a good eye; and the bones, though not very small, are neither large nor clumsy; and the cows are considered good milkers.' (Parkinson on Live Stock, vol. i. p. 135).

Alderney cattle are much prized in England for the sake of their milk, which is rich, and not always small in quantity. The race is considered by competent judges as too delicate and tender to be propagated to any extent in Britain. Their color is mostly yellow, light red, or dark dun, with white or mottled faces; they have short horns, are small in size, and often ill shaped; yet are they fine in bone; and their beef, though high colored, is well flavored. Mr. Culley says he has seen some very useful cattle bred from a cross between an Alderney cow and a short horned bull. See Bos.

‘Whatever be the breed,’ says Mr. Culley, ‘I presume that, to arrive at excellence, there is one form or shape essential to all, which form I shall attempt to give in the following description of a bull.

‘The head of the bull should be rather long, and muzzle fine; his eyes lively and prominent; his ears long and thin; his horns white; his neck rising with a gentle curve from the shoulders, and small and fine where it joins the head; his shoulders moderately broad at the top, joining full to his chine and chest backwards, and to the neck-vane forwards; his bosom open; breast broad, and projecting well before his legs; his arms or fore thighs muscular, and tapering to his knee; his legs straight, clean, and very fine boned; his chine and chest so full as to leave no hollow behind the shoulders; the plates strong to keep his belly from sinking below the level of his breast; his back or loin broad, straight, and flat; his ribs rising above one another, in such a manner that the last rib shall be rather the highest, leaving only a small space to the hips or hooks, the whole forming a round or barrel-like carcass; his hips should be wide placed, round or globular, and a little higher than the back; the quarters (from the hip to the rump) long, and, instead of being square, as recommended by some, they should taper gradually from the hips backward, and the turfs or pot-bones not in the least protuberant; rumps close to the tail; the tail broad, well haired, and set on so high as to be in the same horizontal line with his back.’ (Culley on Live Stock, p. 38.)

Of sheep.—According to Culley there are fourteen different breeds of sheep in Great Britain, all of them readily distinguishable by their horns, or by being hornless, by the color of their faces and legs, and by the length and quality of their wool. Parkinson (on Live Stock, vol. i. p. 249) enumerates no fewer than thirty-seven breeds. ‘Hence,’ says the article Agriculture, Supplement to Encyclopædia Britannica, ‘the most eligible mode of classification would be, to consider separately those races which are best adapted to enclosed arable land; those which occupy green hills, downs, and other tracts of moderate elevation; and, finally, such as inhabit the higher hills, and mountains. On the first description of land every sort of practicable improvement may be effected, though there the carcass has hitherto been the chief object; on the second, the carcass is smaller but the wool generally finer,—and it is probably with such sheep that the greatest improvements ought to be attempted on the

fleece; and, on the last division, the breeds are necessarily small and hardy, and, in regard to form and general properties, still almost in a state of nature. The improvement of sheep must mainly depend on the circumstances of every district, in regard to the food and shelter it affords them; and it is only where these indispensable requisites are abundantly provided by nature, or by human industry, that the most skilful management can be successful.

Culley gives, as in the case of cattle, his idea of the best general form of the male:—‘His head,’ he says, of the ram, ‘should be fine and small, his nostrils wide and expanded, his eyes prominent, and rather bold or daring, ears thin, his collar full from his breast and shoulders, but tapering gradually all the way to where the neck and head join, which should be very fine and graceful, being perfectly free from any coarse leather hanging down; the shoulders broad and full, which must at the same time join so easy to the collar forward, and chine backward, as to leave not the least hollow in either place; the mutton upon his arm, or fore-thigh, must come quite to the knee; his legs upright, with a clean fine bone, being equally clear from superfluous skin and coarse hairy wool from the knee and hough downwards; the breast broad and well forward, which will keep his fore-legs at a proper wideness; his girth or chest full and deep, and, instead of a hollow behind the shoulders, that part by some called the fore-flank should be quite full; the back and loins broad, flat, and straight, from which the ribs must rise with a fine circular arch; his belly straight, the quarters long and full, with the mutton quite down to the hough, which should neither stand in nor out; his twist deep, wide, and full, which, with the broad breast, will keep his four legs open and upright; the whole body covered with a thin pelt, and that with fine, bright, soft wool. The nearer any breed of sheep comes up to the above description, the nearer they approach towards excellence of form.’

This kind of stock is highly advantageous to the farmer in various points of view: as supplying food and clothing, and as a means of improving the farm. See OVIS, SHEEP, and WOOL. The sheep of different counties excel in these different properties, and in some parts they have been much improved by crossing the breeds. Kent, in his Survey of Norfolk, observes, that there ought always to be some affinity or similitude between the animals which are crossed. It is, says he, a manifest incongruity to match a Norfolk and a Leicester sheep; or a Norfolk and a South Down; or any long-woolled sheep with a short-woolled; but a Leicestershire sheep may be matched, with some degree of propriety with a Cotswold; and a South Down sheep with a Berkshire or a Herefordshire Ryland.

In the Survey of Staffordshire Mr. Pitt says, the Wiltshires crossed by a heavy ram have produced sheep, at little more than two years old, of forty pounds per quarter, and which have been sold to the butcher at £3 10s. each. The Dorsetshire breed, which are well made and compact, have often answered well, and are, in the opinion of some experienced farmers, equal

to any other breed. The fact is, that any breed of sheep, if sound and healthy, may be enlarged and improved by good keeping, and by crossing with rams selected with attention.

The best sheep for fine wool are said to be those bred in Herefordshire and Worcestershire; but they are small and black faced, and consequently bear but a small quantity. Warwick, Leicester, Buckingham, and Northamptonshire, breed a large-boned sheep, of the best shape, and deepest wool. The marshes of Lincolnshire also breed a very large kind of sheep, but their wool is not good. The northern counties in general breed sheep with long, but hairy wool; and Wales breeds a small hardy kind of sheep, which has the best tasted flesh, but the worst wool of all. The farmer, according to some writers, should always buy his sheep from a worse land than his own, and they should be big-boned, and have long greasy wool curling close and well. These sheep always breed the finest wool, and are also the most approved of by the butcher.

Pitt, in his Survey of Staffordshire, tells us, in that populous manufacturing county the considerable demand for lamb, as well as mutton, induced a great proportion of farmers to keep none other than an annual stock of sheep, consisting of ewes bought in at Michaelmas from Cannock Heath, Sutton Coldfield, the common of Shropshire, and sometimes even from Gloucestershire, Wiltshire, and Dorsetshire. These ewes being immediately put to a ram, the lambs in spring are suckled till they are fit for the butcher; they are then sold, and the ewes kept in good pasture, fatted and sold after them, and the whole stock generally cleared off within the year: the lambs and wool generally pay the original purchase of the ewe, and sometimes more; and the price of the fat ewe remains for keeping and profit. He observes that the rams of Mr. Fowler, a celebrated breeder of this kind of stock, are stout, broad-backed, wide on the rump, and well made, with fine wool to the very breech; the largest of them would, he believes, fatten to more than thirty pounds the quarter; and the smallest would be considerably above twenty pounds. Great attention has been paid for several years past to improving this breed both in wool and carcasses. But Mr. Fowler himself thinks the breed is now pushed rather too far in bulk and weight, for the pasturage of the common, or even of the neighbourhood, unless they are driven into better land for fattening. But he is clearly of opinion that pushing or increasing the size or bulk of sheep by improving their pasturage, or removing them to a better pasture, does not at all tend to injure the staple, or degenerate the fineness of clothing wool, provided due attention be paid to selecting the finest-woolled rams. The Leicestershire breeds, he says, are of two kinds, the old and the new. The old Leicesters are large, thick, heavy sheep, with long combing wool; the new Leicester breed is a refinement upon the old, by crossing with a finer-boned and a finer-woolled ram. These are now established in various parts of Staffordshire, and increasing in other places. The old Leicester breeds are crossing with the new, which bids fair to produce a

very good breed; there being many instances in which the old breed were become too coarse, and the new too fine. The stock of Mr. Dyott, of Freeford near Litchfield, a gentleman who has attended much to this subject, is closely bred from the new Leicester breed, by rams for many years procured from the best breeds. His farming is to the extent of 800 acres or more; and the main object sheep. His stock of breeding ewes is 260, and he never sells a lamb, which upon the average rearing is about 300. He informed our author that his annual sales from sheep and wool amounted upon an average to £650, that his sheer hogs or yearling wethers generally go to the butcher at two guineas each; and the culls of this age make 35s. each; and by keeping to February he has sometimes sold them at 50s. each, under two years old. He has several times killed sheep kept to a greater age, that have weighed forty pounds per quarter.

Mr. Pitt says that there are some other flocks, such as those of lord Bagot's tenants, and particularly some lately belonging to Mr. Harvey, his lordship's steward, that deserve attention. This breed is gaining ground fast, and is supposed by many to be the best pasture sheep-flock in the kingdom. The superiority consists in this, that the pastures may be stocked much harder with these than any other stock of equal weight: as they are always fat, even when suckling lambs. The ewes, full grown, will weigh from twenty to twenty-five pounds per quarter; wethers at two years old about the same; but when kept another year they rise to thirty pounds per quarter. The fleeces weigh from seven to ten pounds. These sheep he describes to be fine and light in the bone; thick and plump in the carcass; broad across the loin, with the back bone not rising into a ridge, but sinking in a nick, and a double chine of mutton rising on either side; fine and clean in the neck and shoulder; not too short in the leg; and of a sufficient bulk in the carcass to rise to the weight above-mentioned.

In Norfolk, those who keep ewe flocks, Mr. Kent observes, find them answer extremely well; for, besides the fleece and manure, the average price of the lambs is 12s. Those who buy the wether lambs with a view of bringing them up for fattening stock, after keeping them eighteen or nineteen months, generally sell them at an average of 30s., which is a very handsome profit.

Mr. Boys informs us that the management of sheep in the different parts of Kent is as follows:—In the eastern part the flock farmers buy in lambs at Romney fair the 20th August, at from 12s. to 14s. each; and when they have kept them two years they either sell them lean to the fattening grazier, or fatten them themselves on turnips and pea or bean straw. Oats, and cullings of garden beans, are sometimes given to finish them in the spring. When these two yearling sheep are sold in autumn to the graziers, the price is from 21s. to 28s. each; and when made fat they produce from 34s. to 42s. according to their size and fatness. But these prices have lately considerably advanced. The few sheep bred in the marshes are of the same sort, except some small parcels of Dorsetshire and South Down ewes. But al-

most the whole of the sheep kept on the upland farms of East Kent are the true Romney marsh breed; whose carcasses and bones being large, and wool long and heavy, they require rich land and good keep to make them fat. Mr. Boys keeps no other than South Down sheep, and has every reason to be satisfied with them: his flock is about 1000, 400 of which are breeding ewes.

In the isle of Sheppey the sheep are of the Romney marsh sort, true Rents. The soil being much inferior to Romney marsh, the sheep are somewhat smaller; and, from the same cause, their wool is lighter and finer. The wethers are fattened at three years old, then weighing from twenty to twenty-four pounds per quarter. The sheep mostly kept in the district of West Kent are the South Down sort, bought in wether lambs at the autumnal fairs on the Downs, October 2nd. The usual practice with the lambs in the Romney marshes is that of sending them, about the beginning of September, to be kept by the neighbouring upland- or hill farmers during the winter. They go in separate lots, being received at certain appointed places by the farmers, and driven to the houses or taken to the farms by their servants. They are then commonly put upon the stubbles or grattons, as they are called; but in some cases they have also pastures to run upon, though too little attention is, in general, paid to the changing of them; by which they suffer much, and are often greatly injured, especially such as are weakly and delicate. It is found that there is a prodigious benefit in keeping the lambs in winter, in such situations, in having the grounds dry and warm, instead of being of a cold, wet, clayey nature. Lambs should by no means be stocked along with the ewes, as the old sheep will constantly take the feed, and stench the land, by which the lambs may be greatly hurt. They should always be stocked separately, and the pastures be frequently changed, circumstances which are little regarded here. Some think that lambs do not thrive well on being put to grass, after having been fed on luxuriant food, such as turnips, old tares, rye-grass, &c. The price of the keeping of lambs in these cases is very different; some paying only 3s. 6d. the lamb, while others pay 5s.; and where no neat stock are kept they charge as high as from 6s. to 6s. 6d. the head, for the space of about six months. This is but a late advance; however it makes the price of keep a serious object. The loss of lambs in this system of winter management is occasionally considerable, but depends much on the nature of the season, as to mildness or severity, amounting in some cases to four or more in 100.

The tegs, or one-year old lambs, in this system are brought from the uplands, where they have been wintered too often in a low state of condition, for the supply of the marsh graziers, which enables them to keep more ewes and fattening sheep on the marsh lands. This is done about the beginning of April, when the upland farmers are indulged with a feast or treat at the expense of the graziers, as a recompense for their care and attention to the lambs, in which liberality has a great effect. As the flocks reach the marsh, they are put into the poorest pastures, at the rate of five to the acre, their old sheep being

just sold to make room for them. These are commonly the best conditioned tegs, in which there may sometimes be loss from the sudden transition from poor to too good keep, though they are not, in general, so subject to some sorts of disease as the old ones, on such changes being made in their food. The marsh sheep-graziers have lately been much in the practice of prevailing on the farmers to keep such flocks a fortnight, or even double that time, on turnips, which has the advantage of enabling them to double the stock on the same pastures during the summer; while, on the other hand, it is evident that, when they are so hard stocked early in the spring, they can neither have so luxuriant a growth nor be so full of grass. The pastures are likewise eased gradually, as the fat ewes or wethers are taken off, and their places supplied by the wether-tegs, while the ewe-tegs are suffered to remain on their original pastures until they are selected, or set for going to the rams. The wether tegs in the autumn are removed to the fattening, and the ewe-tegs to the breeding grounds, among the two and three yearling ewes. The wethers remain till July or August following, when, as they become fat, they are drawn out and sold to the butchers at the marsh markets, or sent to Smithfield. The two-yearling wethers, when fat, at this season weigh from twenty to twenty-eight pounds per quarter; and some of the largest and best fed a few pounds more. The old ewes, there called barren, are put to fattening as soon as their milk is dried after the third lamb, which is at the age of four years, on some of the best lands; where they are placed, from two to three per acre, for the winter. These, in favorable winters, are sometimes made fat, and sold in the spring. The practice of fattening sheep on turnips, assisted by oil cake, corn, hay, saintfoin, &c., is greatly in use among the upland farmers of this county; not so much for the profit by feeding with those articles, as for the great improvement of the soil where the turnips are fed off. The manure from sheep fed on oil cake and turnips is reckoned very enriching to the land. A great number of fold flocks of lean sheep are kept by the farmers in the east part of the county, of from eight to twenty score. These are each attended by a shepherd, who removes the fold every morning to fresh ground, at six o'clock in summer, and at break of day in winter: the flock is then driven away to the most inferior keep at the first part of the morning, and is returned into the fold for two or three hours in the middle of the day, while the shepherd goes to dinner; in the afternoon it is gradually led to the best keep in the farm, that the sheep may return full fed to the fold in the evening. Great caution is necessary in feeding sheep on clover in summer, and on turnips in the first part of winter.

Mr. Robertson has inserted the following account of feeding ewes with early lambs in his Survey of Mid Lothian, as stated by an accurate observer. The number in all was sixty; fed off in four weeks the expense was £12. Thus each lamb cost 4s. The expense of twenty fed five weeks was £5 12s. 6d., or 5s. 7½d. each lamb:— 'Feeding on grass takes six weeks to feed off. The average rent of good grass may be £2 per

acre, which will feed off four ewes with lambs. He considers six weeks from the middle of April, the usual time of laying on, to be full one-half of the value of the grass for that season; hence the lambs cost 5s. each in that time. In turnip feeding sheep, by flaking them on the field, twenty sheep eat an acre in fourteen weeks. If they be led off to a grass field, ten score will tattle or dung an acre in seven days, worth £2 10s. As to feeding in the house, he finds the dung worth the trouble of carting, and the value of the straw it takes for litter. He finds also the lambs fed on grains not only sooner ready, but more white and firm in the flesh; the ewes are also in better condition. He likewise found that, at times, to mix a little salt among the grains was of great service; but it was necessary to avoid, above all things, giving them grains when sour, or old kept; and of importance also to feed them regularly, and to give them fresh clean litter every day. A sheep will consume about twenty pounds of turnips in twenty-four hours, if it be allowed as many as it can eat, which should always be allowed to fat sheep; but, as sheep vary in size, so they will consume more or less food.

The Teeswater breed of sheep is said to be the largest in Great Britain; is at present the most prevalent in the fine fertile lands on the banks of the Tees in Yorkshire; and supposed to be from the same stock as those of the Lincolns. It is a breed only calculated for warm rich pastures, where they are kept in small lots enclosed, and well supported with food in severe winters. The produce in mutton is large, but, from their requiring so much longer time and richer keep, and being admitted in so much smaller proportions on the acre, they are not, upon the whole, so profitable, perhaps, as the smaller more quick-feeding breeds. In the ewes there is, however, according to Culley, a property which is of much consequence, which is, that in general they are very prolific, bringing two and frequently three lambs, and in some cases a greater number each. He gives the following description of the breed:—The legs are longer, finer boned, and support a thicker and more firm and heavy carcase than the Lincolns; the sheep are much wider on the backs and sides, and a fatter and finer-grained mutton. The weight per quarter in two-years old wethers is from twenty-five pounds to thirty-five pounds, and in particular instances to fifty-five pounds or more. The wool is shorter and less heavy than in that breed.

In the Corrected Report of the West Riding, of Yorkshire, Mr. Parkinson supposes that a useful kind is capable of being bred by crossing the ewes of this sort with Dishley rams. It is added that by the use of these, and those of the Northumberland kind, the quality of the wool and the mutton has not only been greatly improved, but the quantity of bone and offal much lessened; and, at the same time, the fattening property considerably increased: they becoming fatter at two years old than the others are at three. The wethers of this improved sort generally sell, unborn, at two years old, from 45s. to 55s. a piece, and weigh from twenty-four to thirty pounds the quarter.

The Lincolnshire breed is characterised by their having no horns; white faces; long, thin, weak carcasses; thick, rough, white legs; bones large; pelts thick; slow feeding; mutton coarse grained; the weight per quarter in ewes from fourteen pounds to twenty pounds; in three-year old wethers from twenty pounds to thirty pounds; the wool from ten to eighteen inches in length. And it is chiefly prevalent in the district which gives the name, and other rich grazing ones. The writer of the work on Live Stock supposes that this breed is now so generally improved by new Leicester tups, that they are probably, in a great measure, free from those defects of the old breed of which Mr. Culley, with much reason, complained, namely, slow feeding, from a looseness of form, and too much bone, and coarse-grained flesh. It must not, however, be denied, that a good old Lincoln has ever been, and the name, at least, still continues a great favorite at Smithfield. The new or improved Lincolns have finer bone, with broader loins and trussed carcasses, and are among the best, if not actually the best, long-woolled stock we have.

The New Leicester, or Dishley, is an improved breed of sheep, readily distinguished from the other long-woolled sorts, according to Culley, by having fine lively eyes; clean heads, without horns; straight, broad, flat backs; round or barrel-shaped bodies; fine small bones; thin pelts; and a disposition to make fat at an early age; to which may be added a superiority in the fineness of the grain and the flavor of the mutton to that of other sheep of the large long-woolled kinds. The weight per quarter in ewes three or four years old from eighteen pounds to twenty-six pounds; in two-year old wethers, from twenty pounds to thirty pounds; the length of wool from six to fourteen inches. The author of the Treatise on Live Stock characterises them as having a fulness of form and substantial width of carcase, with a peculiar plainness and meekness of countenance; the head long, thin, and leaning backward; the nose projecting forward; the ears somewhat long, and standing backward, great fulness of the fore-quarters; legs of moderate length, and the finest bone; tail small; fleece well covering the body, of the shortest and finest of the combing wools, the length of staple six or seven inches. The fore-flank, a term of the old school, current in the time of Lisle, or that flap of skin and fat appended to the ribs, and the inferior part of the shoulder, is remarkably capacious in this breed. New Leicester mutton, it is believed, is the most finely grained of all the large long-woolled species, but of a flavor bordering on the insipid. And it is added, that it is reported, and with the strongest probability, from the appearance of the stock, the fineness of the wool, and the grain of the mutton, that a Ryeland cross was a prime instrument in the Dishley improvement of sheep. Probably the root or foundation was Lincoln. In the ordinary and gradual course of improvement or alteration of form, it must have taken, it is thought, a long time and vast pains, to mould the animals into that artificial and peculiar shape which distinguishes this remarkable variety.

The author of the Treatise on Cattle says, the

pure Dishley sheep are by no means the most prolific, nor the best nurses; and adds that, the heads of the improvers having had time to cool, it is no longer boasted that new Leicester sheep are able to subsist, and even thrive, on the shortest commons. In fine, it is contended, the merits of this stock as an improving cross (their grand point of utility), being so undeniably great, their disadvantages have been overlooked: and, further, that though the Dishley cross has made its way into every part of this island, to the Land's End, to the bottoms of the Welsh mountains, and of the Scottish Highlands, to Ireland, and even to Russia, its general success has been attended with various particular instances of failure, a remarkable one of which is given by lord Somerville, in his Facts, in respect to the Bampton or Western long-woolled sheep. The cross is sometimes very injudiciously used with short or carding wool stock, excepting where the intention is only forward lamb. On stock naturally good and improvable this peculiar effect of the new Leicester cross has resulted: the improved have considerably surpassed, in the most valuable properties, their improvers. Of this many examples may be seen, it is supposed, in the improved Lincoln, Northumberland, and Midland county sheep. It has been stated by lord Somerville that all the breeds of sheep in this kingdom may be arranged into two classes; those which shear the short or clothing, and those which shear the long or combing wool. And that the quality of the flesh in each class follows the character of the wool, the short-woolled sheep being close in the grain as to flesh, consequently heavy in the scale, and high flavored as to the taste; the polled long-woolled sheep more open and loose in the grain, and larger in size. We have as above described the three chief long-woolled varieties, and must refer to our article SHEEP for further observations on this valuable animal and its habits.

Of the rearing and fattening of hogs.—The practice of keeping these animals is so general, especially in England, that one should think the profit attending it would be absolutely indisputable; and this the more especially when it is considered how little nicety they have in their choice of food. From such experiments, however, as have been made, the matter appears to be very doubtful. In the Annals of Agriculture, vol. i., we have an experiment by Mr. Mure, of feeding hogs with the cluster potatoe and carrots; by which it appeared that the profit on large hogs was much greater than on small ones; the latter eating almost as much as the former, without yielding a proportionable increase of flesh. The gain was counted by weighing the large and small ones alive; and it was found that from November 10th to January 5th they had gained in the following proportion: twenty large hogs £1 3s. 6d.; twenty small 7s. 8d.; two stag hogs, £1 17s. 8d. On being finished with pease, however, it appeared that there was not any real profit at last; for the accounts stood ultimately at par; the expense being £95, and the product being exactly the same.

In some experiments by Mr. Young, related in the same volume, he succeeded still worse, not

being able to clear his expenses. His first experiment was attended with a loss of a guinea per hog; the second with the loss of 11s. 8d.; the third of 3s. In these three the hogs were fed with pease; given whole in the two first, but ground into meal in the last. The fourth experiment, in which the hog was fed with Jerusalem artichokes, was attended with no loss; but another, in which pease were again tried, was attended with a loss of 4s. Barley was tried, ground along with pease and beans; this was attended with a profit of 17s. 4½d. In another experiment in which the hogs were fed with pease and barley ground, the beans being omitted as useless, there was a profit of 12s. 3d. upon an expense of £20 15s. 9d. In this experiment the pease and barley meal were mixed into a liquid like cream, and allowed to remain in that state for three weeks, till it became sour. This was attended in two other instances with profit, and in a third with loss: however, Mr. Young is of opinion that the practice will still be found advantageous, on account of the quantity of dung raised, and that the farmer can thus use his pease and barley at home, without carrying them to market.

Mr. Marshal remarks that, in the midland district, oats are preferred to barley as a food both for young pigs and breeding swine. It is also supposed that young pigs require warm meat to make them grow quickly. Barley meal and potatoe are used in fattening them. In this district it is common to keep two or three pigs in the sty along with the old hogs to be fatted.

In Staffordshire, Mr. Pitt says, the breed of hogs most esteemed is not the large slouched-eared breed, but a cross between them and a smaller dwarf breed. They should be fine in the bone, thick and plump in the carcase, with a fine thin hide, and of a moderate size; large enough to fat, at from one to two years old, to the weight of from 300 lbs. to 400 lbs. each. These, if well bred, will keep themselves in good plight with little feeding, and will soon grow fat with a plentiful allowance of proper food. Hogs of the large breed have been fatted there, to from 600 lbs. to 800 lbs. each, exclusive of the entrails; but, requiring much time and food, have pretty generally given way to a smaller-sized, finer-boned, thick, plump, animal. Hogs are generally fatted there by farmers with the refuse of the dairy, boiled potatoes, and barley meal, and pease either whole or ground: by millers with the husk or bran of wheat ground down, but not wholly divested of its flour; also with other sorts of grain and pulse ground down; by butchers with the refuse or offal of slaughtered animals. The best way of managing the potatoes is to boil them in their own steam, and put them afterwards into a large oven when the bread is drawn, to evaporate the watery parts: they will then go nearly as far as chestnuts or acorns in feeding.

In Lancashire Mr. Holt observes, that Mr. Eccleston has a breed between the wild boar and the Chinese, which have very light and small bellies. Upon the same food, he thinks, they will yield one-fourth more flesh than either the large

Irish or Shropshire breeds. Their size is but small, weighing only from ten to fifteen score, generally about twelve score.

In Kent a great number of pigs are reared and fed on the corn stubbles for the butchers, which are killed in autumn for roasting, at the age of three or four months, then weighing three or four score pounds each. Some are also fattened and killed at from six to twelve months old, and sold. In the west part of this district, a few farmers have the larger kind, or Berkshire breed; but in general they are mixtures of many different sorts. Little attention, says Mr. Boys, is paid to this animal, though the breed might doubtless be very much improved with proper care. Many hogs, says he, are likewise kept in the woods of the Weald of Kent in the autumn, on acorns, and fattened on corn in the winter.

Pigs, Mr. Holt says, should, during their growth, be regularly turned out to graze. This, besides the advantage of grass, which is nutritious, by the fresh air and exercise causes a disposition to take their rest; and sleep after a meal contributes to their cleanliness, and renders their flesh of superior flavor. Mr. Young has inserted a number of experiments on feeding hogs in the Transactions of the London Society of Arts; and, on the whole, prefers pollard and skimmed milk, as the best feeding; and, next to these, boiled carrots and potatoes.

Of rabbits.—In particular situations these animals may be kept to advantage, as they multiply exceedingly, and require no trouble in bringing up. A considerable number of them are kept in Norfolk, where many parts, consisting of barren hills or heaths, are proper for their reception. They delight in the sides of sandy hills, which are generally unproductive when tilled; but level ground is improper for them.

Mr. Marshal is of opinion that there are few sandy or other loose soiled hills which would not pay better in rabbit warrens than any thing else. 'The hide of a bullock,' says he, 'is not worth more than one-twentieth of his carcase; the skin of a sheep may, in full wool, be worth from a sixth to a tenth part of his carcase; but the fur of a rabbit is worth twice the whole value of the carcase; therefore, supposing a rabbit to consume a quantity of food in proportion to its carcase, it is, on this principle, a species of stock nearly three times as valuable as either cattle or sheep.' Rabbit warrens ought to be enclosed with a stone or sod wall; and, at their first stocking, it will be necessary to form burrows to them until they have time to make them for themselves. Boring the ground horizontally with a large auger is perhaps the best method that can be practised. Eagles, kites, and other birds of prey, as well as cats, weasels, and polecats, are great enemies of rabbits. The Norfolk warreners catch the birds by traps placed on the tops of stumps of trees or artificial hillocks of a conical form, on which they naturally alight. Traps also seem to be the only method of getting rid of the other enemies, though thus the rabbits themselves are in danger of being caught.

Rabbits are subject to two diseases:—1. The rot, occasioned by too much green food, or giving it to them fresh gathered, with dew or rain upon

it. The cure is the sweetest hay that can be got. 2. A kind of madness, which is known by their tumbling about, with their heels upwards. The cause is full feeding; the cure, keeping them low, and giving them tare thistle. One buck rabbit will serve nine does.

Of poultry.—Under this head are comprehended a variety of birds, which are objects of attention to the farmer. 1. *Fowls.*—The farm yard cannot be said to be complete until well stocked with fowls; the advantage of which is most considerable in situations where the farmer is best supplied with grain, and has the best means of preserving the birds. In choosing this kind of stock, prefer the best breeders and the best layers; the oldest being the best sitters, and the youngest the best layers; but no sort will be good for either, if they are kept too fat. The best age to set a hen for chickens is two years old, and the best month is February; though any month between that and Michaelmas is good. Hens sit twenty-one days, during which they should constantly have meat and drink near them, that they may not straggle from their eggs, and chill them. If fowls are fed with buck or French wheat, or with hemp seed, they will lay more eggs than ordinary; and buck-wheat, either whole or ground, made into paste, will fatten fowls very speedily; but the common food used is barley-meal, with milk or water; but wheat flour moistened is the best. A good hen should be working, vigilant, and laborious, both for herself and her chickens, and the larger the better. The elder hens are rather to be chosen for hatching than the younger, because they are more constant, and will sit out their time; but, if chosen for laying, take the youngest. Those eggs that are laid when the hens are a year and a half or two years old are the best; at that time give the hens plenty of victuals, and sometimes oats, with fenugreek to heat them, if you would have large eggs.

In setting hens, take care that the eggs be new, which may be known by their being heavy, full, and clear. While sitting, a hen should never be disturbed from her nest, lest she forsake it. A hen-house should be large and spacious, with a pretty high roof and strong walls, to keep out thieves and vermin; there should likewise be windows on the east side, for the benefit of the rising sun; and round about the inside of the walls, upon the ground, should be made large pens, three feet high, for geese, ducks, and large fowls to sit in; and near the covering of the house long perches, reaching from one side to the other, should be fixed, on which cocks, hens, capons, and turkeys, may sit. At another side of the house, at the darkest part of the ground pens, fix hampers full of straw, for nests, for the hens to lay their eggs; but, when they sit to hatch chickens, they should be on the ground: there should likewise be stakes stuck in the walls, that the poultry may climb to their perches with ease; and the floor should not be paved, but made of earth smooth and easy. The smaller fowls should also have a hole at one end of the house to go in and out when they please, else they will seek out roosts in other places. It would likewise be of great advantage to have the hen-house, si-

tuated near some kitchen, brew-house, bake-house, or kiln, where it may have the heat of the fire, and be perfumed with smoke, which is very grateful to pullets.

To fatten chickens, put them into coops, and feed them with barley-meal; put a small quantity of brick dust into their water, which will give them an appetite and fatten them very soon; for all fowls and birds have two stomachs, the one is their crop, that softens their food, and the other the gizzard, that macerates their food; in the last we always find small stones and sharp sand, which help to do that office.

2. The *duck*, a native of Great Britain, is found on the edges of all quiet waters throughout Europe. In breeding, one drake is generally put to five ducks; the duck will cover from eleven to fifteen eggs, and her term of incubation is thirty days. They begin to lay in February, are very prolific, and are apt, like the turkey, to lay abroad, and conceal their eggs, by covering them with leaves or straw. The duck generally lays by night, or early in the morning; white and light-colored ducks produce similar eggs, and the brown and dark-colored ducks those of a greenish blue color, and of the largest size. In setting ducks, it is considered safest to put light-colored eggs under light ducks, and the contrary; as there are instances of the duck turning out with her bill those eggs which were not of her natural color. During incubation, the duck requires a secret and safe place, rather than any attendance, and, will, at nature's call, cover her eggs, and seek her food, and the refreshment of the waters. On hatching, there is not often a necessity for taking away any of the brood, barring accidents; and having hatched, let the duck retain her young upon the nest her own time. On her moving with their brood, prepare a coop upon the short grass, if the weather be fine, or under a shelter, if otherwise: a wide and flat dish of water, often to be renewed, standing at hand; barley, or any meal, the first food. In rainy weather, particularly, it is useful to clip the tails of the ducklings, and the surrounding down beneath, since they are else apt to draggle and weaken themselves. The duck should be cooped at a distance from any other. The period of her confinement to the coop depends on the weather and the strength of the ducklings. A fortnight seems the longest time necessary; and they may be sometimes permitted to enjoy the pond at the end of a week, but not for too great a length at once, least of all in cold wet weather, which will affect, and cause them to scour and appear rough and draggled. In such case they must be kept within a while, and have an allowance of bean or pea-meal mixed with their ordinary food. The meal of buck-wheat and the former is then proper. The straw beneath the duck should be often renewed, that the brood may have a dry and comfortable bed; and the mother herself be well fed with solid corn, without an ample allowance of which ducks are not to be reared or kept in perfection, although they gather so much abroad. Duck eggs are often hatched by hens. The fattening of ducks at any age is very easy; whether it be the duckling or the grown duck,

the method is the same. They are to be put in a quiet dark place, and kept in a pen, where they are to have plenty of corn and water; any kind of corn will do; and with this single direction they will fatten extremely well in fifteen or twenty days.

3. *Geese* are advantageous both for food, feathers, and grease. They will live upon commons, or any sort of pasture, and need little care and attendance; only they should have plenty of water. The largest geese are reckoned the best; but there is a sort of Spanish geese that are much better layers and breeders than the English, especially if their eggs be hatched under an English goose. Geese in general lay in spring, the earlier the better, because of their price and of their having a second brood. They commonly lay twelve or sixteen eggs each. One may know when they will lay by their carrying straw in their mouths, and when they will sit by their continuing on their nest after they have laid. A goose sits thirty days, but if the weather be fair and warm she will hatch three or four days sooner. After the goslings are hatched, some keep them in the house ten or twelve days, and feed them with curds, barley meal, bran, &c. After they have got some strength, let them out three or four hours a-day, and take them in again, till they are big enough to defend themselves. For fattening green geese, they should be shut up when they are about a month old, and they will be fat in about a month longer. The fattening of older geese is commonly done when they are about six months old, in or after harvest, when they have been in the stubble fields, from which food some kill them; but those who wish to have them very fat shut them up two or three weeks, and feed them with oats, split beans, barley meal, or ground malt mixed with milk. Geese will likewise fatten well with carrots cut small.

4. *Turkeys* prosper very well in open countries, where there is not much shelter to harbour vermin to destroy them, as they are naturally inclined to ramble. The hens are so negligent of their young, that, while they have one to follow them, they never look after the rest; and therefore care must be taken while they are young to watch them, and to keep them warm, as they cannot bear the cold. When kept with corn, they are very great feeders; but, if left to their liberty when grown up, they will get their own living, without trouble or expense, by feeding on herbs, seeds, &c. Turkeys, being very apt to straggle, will often lay their eggs in secret places; therefore they must be watched, and made to lay at home. They begin to lay in March, and sit in April; eleven or thirteen eggs are the most they sit on. They hatch in twenty-five or thirty days. The young ones may be fed either with curds, or green fresh cheese. Their drink may be new milk, or milk and water. Some give them oatmeal and milk boiled thick together, into which they put wormwood chopped small, and sometimes eggs boiled hard, and cut in pieces. They must be fed often; and, when they have got some strength, feed them abroad in a close walled place where they cannot stray; they must not be let out till the dew is off the grass, as it is very prejudicial to them. In the fattening

of turkeys, sodden barley is very excellent, or sodden oats for the first fortnight.

5. *Pigeons*.—These, Mr. Pitt observes, can hardly, in general, be considered as an article of profit to the occupier of a farm, though there are instances in Staffordshire, where something handsome is actually made of them by tenants; yet these instances are rare, and too seldom occur to be reckoned upon in a general account. But few farm-houses are indeed furnished with the necessary accommodations for them; and the increase of them beyond a certain degree must be injurious to the cultivation of grain; within due bounds they do little harm; but, increased beyond it, they prove pernicious vermin, both to the new sown crops and the early part of harvest. They are particularly voracious on early pease. Mr. Kent says that pigeons are much fewer in Norfolk than formerly, as many of the pigeon-houses have been dropt, on account of the injury which they did to thatched buildings.

Of bees.—Under the article *Apis*, we have given so full an account of the management of these useful and industrious insects, that we need add nothing here on the subject of bee husbandry.

SKETCH OF HOLKHAM FARMING.

In concluding this practical article we trust our readers will be gratified with an abstract of Dr. Rigby's able account of 'Holkham' farming: we give it not only with a view to doing justice to the efforts of the distinguished proprietor of that estate in improving and extending the scientific pursuit of agriculture, but also as containing many valuable passing hints on several of the topics of this paper. Dr. Rigby tells us that his paper was originally read at the Norwich Philosophical Society in December 1816: and written from notes taken at Holkham, not intended for publication.

'My observations,' says our author, 'will be principally directed to the extraordinary improvement Mr. Coke has effected in the value of his extensive estate, by a system of agriculture almost peculiar to himself; by an encouraging liberality to his tenants, in a system of leasing his farms, equally peculiar to himself; and by his judicious and extensive system of planting, which, I believe, already exceeds any thing of the kind in the county, and is still progressively increasing. I had the advantage of riding with Mr. Coke several hours, two successive mornings, over the Holkham farm in his own occupation, and over another at Warham, occupied by an intelligent tenant; and, as he allowed me to be full of questions, and seemed to have a ready pleasure in answering them, I had ample means of gratification and information.'

'My first impression was that of surprise and admiration at the exuberance of the crops, at the seeming richness of the soil, and at its unexampled freedom from weeds. The first crops which attracted our notice were some extensive ones, both of wheat and barley. I had never before seen such. Mr. Coke estimated the wheat from ten to twelve coombs per acre, and said nearly twenty coombs per acre of barley had grown upon it, which is at least double the average crop in the county of Norfolk, and nearly treble

that of many counties in the kingdom; and yet so sterile was this part of the estate considered, when he came into possession of it, that a large tract of it had been let, *tith free*, on a long lease, at 3s. per acre; and Mr. Coke offered another lease, of twenty-one years, at 5s. per acre, but the tenant had not courage to take it, and Mr. Coke procured him a farm under another landlord. At that time wheat was not cultivated in this district: in the whole tract, between Holkham and Lynn, not an ear was to be seen, nor was it believed that one would grow. The system of farming was wretched, and the produce of the soil of little value. What a change has been effected by capital, skill, and industry! Notwithstanding the rain of that summer had been, on other farms, so productive of weeds, and had rendered crops, in general, more than usually foul, I cannot help repeating that there was scarcely a weed to be seen here. In several places the harvest had commenced, and the ground, which was exposed on cutting the wheat, was as clean as a barn floor. The day being fine, it was pleasing to see the reapers at work—they were divided into parties, who seemed to have certain quantities allotted to them to cut; among the rest I observed, with some interest, a man, and two girls about twelve or fourteen years of age, who had also a certain share; he proved to be a widower, and these were his children.

'On the second morning Mr. Coke accompanied me to an extensive farm of his at Warham, a neighbouring parish, in the occupation of Mr. Blomfield, cultivated on the Holkham system, and exhibiting the same weedless surface, and the same rich produce, as Mr. Coke's. On one piece of seventy acres, very near the sea, I think the wheat exceeded Mr. Coke's in luxuriance and quantity.

'Mr. Blomfield has the merit of having made a discovery, and adopted a practice, which must be of singular benefit to Norfolk. This county is deficient in old pasture, and the attempt to lay down land, as it is called, for a permanence, so as to procure this kind of valuable pasture, has hitherto been attended with great expense, and has not always been successful. He effects it by what he has, rather ludicrously, called inoculating the land, and literally in one summer it produces a rich, and, strange as it may sound, an old pasture. Without describing the process in detail, it will give a sufficient idea of it to say that the immediate operation on the land consists in placing pieces of grass, turf, or flag, of about three inches and a half square, at certain distances, leaving an interval uncovered equal to that which is covered by the pieces of flag: these are well rammed down, and, in doing this, Mr. Blomfield jocularly said it was inoculating the land, which gave it its name: this process takes place in a winter month, and in the spring some grass seeds are sown on the uncovered spots; but, before the end of the summer, the pieces of flag extend themselves, and, uniting, the whole not only appears to be, but really is, the same as old pasture. I saw thirty acres near Mr. Blomfield's house, a most ordinary soil, light and gravelly, and not worth 5s. an acre, under this process, become an excellent pasture, worth at

least £1 10s. an acre. Mr. Coke was preparing a large piece, within view of the house at Holkham, to be thus improved. I asked Mr. Blomfield how the thought occurred to him; he said, from observing pieces of flag laid on the hedge-row banks, and beaten firmly on with a spade when these banks are dressed, and which, he added, soon extended themselves and covered the banks, if free from weeds, with a similar flag.

Mr. Coke's system of husbandry is the *drill system*, which he adopted at a very early period, and his extraordinary success in it is owing to the progressive improvement he has effected in the process, so as effectually to answer the purpose of loosening the soil, at different seasons, and of completely extirpating weeds. The advantage of deep and repeated ploughings and harrowings, to clean, loosen, and pulverise the soil, preparatory to its receiving the different seeds, every one knows, and, to a certain degree, this is practised on every farm; but the importance of stirring the soil, destroying weeds, and earthing up the young plants in the summer months, was not ascertained until effected in the drill system, by horse-hoeing, &c.; and Mr. Coke's great improvement in it, derived from his long experience, consists in his having gradually drilled at wider distances.

When the drilling of wheat was first practised, the lines were four and six inches distant. Mr. Coke now drills it at nine inches distance, which admits ample room for horse-hoeing, in the spring and early summer months, obviously much more effectual in loosening the soil, destroying weeds, and moulding up the plants, than hand-hoeing, particularly as usually practised by women and girls; who, in most instances, by a partial stirring of the earth, and an incomplete destruction of weeds, promote the more vigorous growth of those which remain. But he does not think it advisable to earth up white-straw crops, and therefore, in horse-hoeing wheat, he does not recommend moulding up the plants.

The true estimate of every process in agriculture must indeed be obtained from experience; but the drawing earth round the stems would seem to promote their tillering, or the production of new stems by suckers or pullulations; and this was one of the great advantages which Tull, who has unquestionably the merit of having been the first to suggest the drill system, expected from horse-hoeing wheat. And it is worthy of remark to what an extent the stems may be multiplied under favorable circumstances, an indispensable one being the supplying the lower part of the plant with fresh earth to work in. The most perfect way in which this can be effected is, obviously, by transplanting. Dr. Darwin, in his *Phytologia*, gives a drawing of a plant of wheat taken from a corn field in the spring, which then consisted of two stems; it was replanted in his garden, and purposely buried so deep as to cover the two or three first joints of both the stems beneath the soil. On taking up the plant, on the 24th of September, it had assumed the form delineated, and consisted of six stems, p. 278. Another way of effecting a multiplication of the stems is by drawing fresh earth round the lower part of the plant, without

removing it, and which, though inferior in degree, is evidently similar in principle, to transplanting it; for, in both cases, Dr. Darwin explains the process to be effected by accumulating earth above the first few joints of the stems, whence new buds spring, generated and nourished by the caudex of the leaf, which surrounds the joint, as the original stem was generated and nourished from the grain itself, and which, like the seed, withers away, when sufficient roots have been formed for the future support of the plant. Sir Humphry Davy also entertains a similar opinion on this subject, and considers the tillering of corn, or the multiplication of stems, as favored by the drill husbandry; for, he says, loose earth is thrown, by hoeing, round the stalks.—*Elements of Agricultural Chemistry*, p. 204.

In drilling turnips, Mr. Coke has gradually extended his lines on ridges, in what is called the Northumberland method, from twelve to fifteen, to eighteen, and even to twenty-seven inches. These wide drills allow the horse-hoe of the largest dimensions, and of various forms, adapted to the different purposes of turning up the soil and earthing up the plants, to pass most readily. 1816 was the first year in which the turnips were drilled so widely, and Mr. Coke expected that the twenty-seven inch drilled Swedish turnips would exceed in weight those of eighteen inches, by ten tons an acre. Dr. Rigby saw a large piece of these, about sixty acres, in which half were at eighteen inches distance, and half at twenty-seven inches; the latter were evidently the largest, in the most vigorous growth, and certainly promised to meet Mr. Coke's expectations. Drilled turnips, however, obviously require cross-hoeing, which must necessarily be done by hand; but as this is merely to destroy the supernumerary plants, it is easily effected by women and young persons. The Swedish turnips form his principal and most valuable crop, and are sown upon the best soils, from the middle of May to the middle of June; but Mr. Coke cultivates on his lightest soils the common and the Scotch yellow turnip, both which are sown from the middle of June to the middle of July.

In 1814 Mr. Blaikie published some observations on preserving Swedish turnips, by placing them, as he terms it, and this has been successfully adopted at Holkham. They are taken up about the middle of November, or as soon as they have attained their full growth; the tails or bulb roots only are cut off, and they are placed in an orchard, or on old turf land, close to, and touching each other, with the tops uppermost, and only one turnip deep. An acre of good turnips from the field will occupy much less space when placed than could be imagined. In very severe weather a slight covering of litter is thrown over them. In this way they will keep very well, and be sound and firm in June. Those taken up in the spring, when the bulb or fibrous roots begin to shoot, and which, if suffered to remain on the ground, would greatly deteriorate the soil, may be placed in the same way; and at this time, if under the shade of trees the better.

The carrying off the Swedish turnips, and placing them elsewhere for consumption, is, however, principally recommended on strong soils and retentive sub-soils, where they cannot

be eaten on the ground without injury. But upon light soils, and open sub-soils, the turnips should be placed where they grow, and put into beds of a proper width for a common hurdle to cover them; a furrow of earth should be ploughed against the outside rows to protect them from the severity of the weather, and from the depredations of game. The expense of placing a medium crop of Swedish turnips, with tops and tails on, is about four shillings and sixpence per acre, and five shillings per acre, when the tails are cut from the bulbs. When turnips are eaten where they are placed, the ground is hurdled off and folded in the usual way; they are chopped in pieces, and thrown about for full-mouthed sheep; but when given to young and old sheep they are cut into slices by a machine, and given to the sheep in troughs, which are frequently shifted. The refuse is thrown about, and the bottoms of the beds, where the turnips were placed, are shovelled and spread about; particular attention being paid to shifting the folds, so that the land is regularly manured. It is not generally known that the texture of the larger Swedish turnips is firmer, and the specific gravity, consequently, greater than in the smaller ones, the reverse being the case in the common turnip. The rind, the least nutritive part, is also, in the same proportion, thinner; but, were it equally thick, there would still be proportionately less of it, the surface of a large sphere bearing, obviously, a less proportion to the interior contents than the surface of a smaller sphere. These may appear trifling circumstances, but they not only show the intrinsic superiority of the Swedish turnip, but the manifest advantage of endeavouring, by a superior cultivation, to grow large ones, thereby improving their quality as well as increasing their weight per acre; and this, it is evident, can in no way be so completely effected as by the improved drill system, and which was never so convincingly apparent as in the most magnificent crops of the year 1817, both at Holkham and on lord Albemarle's farm, at Quiddenham, in this county.

Mr. Coke is liberal in manuring for turnips: he allows not less than fourteen loads of manure per acre, the common quantity not often exceeding ten loads; he is enabled to do this by manuring his wheat with oil cake, which he drills in with the seed, one ton being sufficient for six acres; or he puts it in between the rows by the drill in the following spring, and this not only saves time, labor of horses, &c., as well as manure, but certainly answers well, as his wheat crops sufficiently prove. Mr. Coke mixes the farm-yard dung in compost heaps, by which means he not only increases the quantity, but he seems to improve the quality of the manure, so much so that he now grows better crops of turnips upon the Northumberland ridge method, with compost manure, and without oil cake, than he has formerly done, when his turnips were sown upon the flat, either drilled or broad cast, with all his farm-yard dung in the common method, and a large proportion of oil-cake added to it; and he has the advantage of reserving the oil cake for the wheat crop, to which he considers it more adapted than to turnips. The tur-

nip crop, though so highly important, has hitherto however, even under the best management, been considered as a very uncertain one, depend in almost wholly on seasons. In a rainy season it has been unusually good; but in dry seasons there is frequently a general failure; and, independent of the plant suffering from a deficiency of moisture, in its very early state, it is liable, in all seasons, and peculiarly in dry ones, to become a prey to the ravages of the fly, which not unfrequently sweeps off whole and repeatedly sown crops. Some ingenious mechanical contrivances have been applied to remedy this latter evil, and a curious trap, invented by Mr. Paul of Starston, a most intelligent and active farmer, has been successfully used in saving many crops; but its application is necessarily attended with trouble; and it is, at least, an additional source of occupation at a time when all hands are more than ordinarily employed in making hay, &c., and it has never, therefore, been generally made use of. Mr. Coke, however, no longer considers the turnip crop as an uncertain one; under his improved system of cultivation, it appears to be alike secure both from the seasons and the depredations of this insect.

By depositing a much larger quantity of seed than is usually sown, Mr. Coke produces a greatly increased number of plants, which, as the time of the insect feeding upon them is limited, obviously increases the chance of a greater number of them being ultimately left untouched; and this chance is much increased by shortening the period of the existence of the leaf on which these little animals feed, which is effected by accelerating the growth of the plants, by the stimulus of manure placed immediately under them, and also by the judicious method of depositing the seed immediately after the earth has been well stirred by the plough, by which in all seasons some moisture is evolved, and some chemical changes effected, which much favor the first process of vegetation. The leaf on which the insects feed is the first or cotyledon leaf, which is known to live only until the second or rough leaf is formed. The cotyledon leaf appears to be an expansion or evolution of the seed itself, and being probably nourished by the saccharine matter, which, from analogy, we may suppose is elaborated during its process of germination, it acquires a degree of sweetness which attracts the fly. This communication between the seed and cotyledon leaf continues, however, only until the roots are thrown out whose office it is to supply nutriment, derived immediately from the soil, to the plant in its more advanced state, and simultaneously with their formation below the surface are the second or rough leaves formed above ground; and, as soon as this curious economy between the roots and these leaves is established, the seed, no longer necessary as a source of nourishment, wastes away, the cotyledon leaves die and fall off, and, the rough leaves not being sweet, the fly is no longer attracted, disappears also, and the crop is secure.

This excellent method of cultivating the turnip will, probably, be understood by the following brief detail of the process of sowing it. It

is effected by forming trenches and raising ridges on a clean tilth, by a trench or double-breasted plough and a pair of horses, one of which always goes in the last trench, and this sets out the width and preserves the straight line with tolerable accuracy. A cart and two or three horses pass down the trenches, which are thus opened, dropping heaps of compost manure, which are spread by two men with forks, and the manure falls pretty equally in the rows; another plough, like the former, passes through the middle of the first formed ridge, divides it equally, covers the manure, and forms another ridge immediately over it; a boy with a mule, or little horse, drawing a very light roller, follows this second operation, and flattens the top of the ridges; another boy, with a like horse, follows the roller with a drill, and deposits the seed on the middle of the ridges, and a light chain attached at each end to the back of the drill and which at first sight appeared as if accidentally fallen from it, throws the earth into the drilled lines and covers the seed, and thus the work goes on, the laborers and the relative progress of the work being so proportioned, that none are idle, none stand in each other's way; the manure is not left to dry in the sun, but the operation is completed as it proceeds, and about three acres in a day, with fourteen cart loads of manure on each, as before observed, may be accomplished with one complete set.

In drilling wheat, Mr. Coke allows much more than the usual quantity of seed; ten pecks an acre are the utmost which most farmers drill or dibble, and even six pecks have sometimes been thought sufficient; but he allows four bushels an acre in October, and even five bushels in November. In depositing so large a quantity of seed, and burying it so much deeper than when sown broadcast, it certainly does not seem so requisite to earth up the plants, as probably there will ever be a sufficient number of stems derived, in the first instance, from the seeds themselves; but then a question arises, and which may merit consideration, whether there would not, eventually, be an equal number to produce ears, were a less quantity of seed sown, and the plants afterwards judiciously moulded up. It would seem, indeed, to come to the same thing, and if so in the latter case there would be a manifest, and on a large scale a very great saving of seed. It cannot be expected that nature should conform her processes to calculations on paper; but if the production of buds and stems from the joints of wheat plants, when duly surrounded with earth, depends upon an established and unvarying law of nature, it must be the same thing whether twelve stems are produced directly, from six grains of wheat, or six stems are produced from three grains, and six more are subsequently produced by surrounding the lower joints with earth. A few experiments, conducted as they usually are at Holkham, would decide the question.

Mr. Coke is an advocate for early sowing; and, as the drill puts in the seed quickly, and, as before observed, no time is lost in carting on manure; he has seldom much to sow in November. He says he has always the best crops when the wheat is very thick in the rows; and he

never thinks it thick enough if he can easily pass his finger through the stems, near the ground. He cuts his wheat very early, even when the ear and stem are greenish, and the grain not hard. He says the wheat, thus early reaped, is always his best sample, and he gets 2s. a quarter for it more than for wheat cut in a more mature state. He, perhaps, loses something in the measure, the skin being thinner, and the grain, probably, not quite so bulky; but, if this be true, it is fully compensated by his suffering no loss by shedding on the ground, which, when the ear is ripe and the weather windy, is often not inconsiderable. He is equally early in cutting oats and peas: when Dr. Rigby observed to him that, in both these, the seeds were not all ripe; his answer was that he should lose more by the falling of the ripe seeds at the bottoms, than he should gain by waiting until the rest were ripe; and that the straw in this state, retaining some immature seeds, was of more value to his stock in the yards, than if cut later.

To prove the utility of reaping wheat early, Mr. Coke had hung up, in his own room, a few handfuls of wheat which was greenish and immature; in a few days they had ripened in the capsule. 'Mr. George Hibbert, of Clapham, a gentleman well skilled and much experienced in the cultivation of plants, was with us,' says our author, 'and he has since, in a letter, observed to me that this is a common natural process, more especially when the capsules are of a succulent nature, and which all gardeners very well know; and he mentioned a remarkable instance which occurred to him respecting a plant whose seed had no considerable envelopment. James Niven was employed by him to collect the seeds of plants in Southern Africa: he sent a specimen of a beautiful erica, lamenting, in his letter, that he had never been able to find one of that species advanced into fruit; but out of that very specimen, which he seems to have gathered in the full vigor of flowering, Mr. Hibbert actually obtained ripe seeds, and produced plants here by sowing them. When Niven returned, he showed him the specimen, and he said a very considerable progress towards fructification must have been made during the transit from the Cape of Good Hope, hither, by the rising of the sap within the specimen.'

Mr. Coke's *course of husbandry*, that is, the succession of his crops, varies but little from that which is general throughout the county of Norfolk. It is called the four or five course;—first year, turnips—second, barley, laid down with clover or other grass seeds—third, grass to cut or feed—fourth, wheat. He has, within a few years, found it profitable to lay down a certain quantity of land with cock's-foot grass, dactylis glomerata, and this lies two years, making the course on this land five years.

This grass does not stand for hay, but is excellent sheep feed; when fed close, it tillers very much; or spreads and branches on the ground with multiplied stems, and, in the season most favorable to vegetation, it will grow more than an inch in a few days. Sheep are very fond of it, and Mr. Coke says he can pasture more upon it than on any other layer of artificial grass. The

seeds of this grass, which is indigenous, are gathered in the woods and lanes by women and children, who cut the tops off with scissars, about six inches long, an inch and a half below the lower spur; they are paid 3d. a bushel for it, measured as hay; one bushel of seed is obtained from seven bushels of it in the state it is thus gathered.

Though not cultivated as other artificial grasses, in the regular course of husbandry, saintfoin has been found, at Holkham, a valuable source of hay, and of autumnal pasturage. It was first cultivated in this district, in the year 1774, upon the Brent Hill Farm, by Mr. Beck, the then occupier. Mr. Beck's example was followed by Mr. Coke, and he has cultivated saintfoin, in Holkham park, about forty years. It seems most adapted to thin soils, incumbent on chalk. The seed is generally sown, in the pod, at the rate of five bushels per acre, with the barley, after a turnip crop; nine pounds of trefoil per acre are sown at the same time. The saintfoin being in pod, attention is required to bury the seed properly. The trefoil produces a crop to mow in the following year, and dies away in the succeeding years. The saintfoin is not in full perfection until the third and fourth years. It continues good until the ninth year, after which it becomes weaker, and is ploughed up for the land to go through a regular course of husbandry. The saintfoin is seldom manured or top-dressed: it produces a ton and a half of hay per acre, annually, while in perfection. It is never spring-fed, but is depastured by all sorts of cattle, to consume the after-math in autumn.

Mr. Coke is ever ready to try the cultivation of any new article. The introduction of the Swedish turnip into general cultivation is much owing to him. I was pleased, says Dr. R., to see a crop of mangel wurzel in a good state: and he told me he had procured some Heligoland beans, a new and promising article, which is said to yield sixty bushels or fifteen coombs per acre, and he proposed dibbling them on the transplanted land; but I saw no cabbages, no succory, no burnet, no parsnips. In Mr. Blaikie's pamphlet, on the Conversion of Arable Land into Pasture, he gives the result of two trials of dibbling the Heligoland beans on this land; the one was upon land which had undergone a complete summer fallow, previous to its being transplanted; and the other was land from which Swedish turnips were taken up in November, but they seem not to have answered in either case; the failure is, however, attributed to the beans having been put into the ground too late. In another instance, Poland oats were sown, and produced twelve coombs per acre.

Mr. Coke's flocks are highly estimated, and he is distinguished for his skill and attention in this branch of rural economy. His sheep are all Southdowns, but he told me he had not the merit of selecting them himself. Some years ago he was visited by some gentlemen from the South of England, who found much fault with the Norfolks, which then composed his flocks, and told him that the sheep in their county, the Sussex Southdowns, were much more profitable and better adapted to his pastures:—he bought

500 on their recommendation, and, finding they fully answered his purpose, he got rid of his Norfolks, and has had none since but the Southdowns. Mr. Coke was much gratified on finding that Mr. Cline confirmed this preference in his paper on the forms and constitutions of animals, in which he considers the characteristic mark of health and vigor, in an animal, to be the expanded chest, the thorax which has ample room for the free play of the heart and lungs. In the Norfolk sheep the sternum terminates almost in a line or edge, the ribs contracting too much as they approach it; while the chest of the Southdowns is more rounded and wider, terminating with a less angle at the sternum. He remarked, on showing Dr. Rigby his admirable dairy of North Devon cows, the same characteristic superiority of form over the Norfolk cows. He particularly pointed out the flat line the ribs take in spreading from the spine, in the upper part of the chest.

When Mr. Coke came to his estate at Holkham, the rent was £2200,—this was forty-one years ago. The produce of his woods and plantations amounts now to a larger sum; for he has had the spirit and judgment to plant 1500 acres; the greater part of which have become magnificent woods, which have not only by their picturesque beauty, unspeakably improved the landscape; by their protection in checking the cold rude winds, so prevalent on this coast, materially softened the temperature; and, by the annual fall of their leaves, even contributed something to the fertilisation of the soil; but, at this time, the annual fall of timber, poles, and underwood, from them, averages about £2700. The timber and poles are applicable to most building purposes; some of them are used in the buildings, which he is constantly carrying on upon an extensive scale; his houses, cottages, barns, stables, and other farming buildings being all in a superior style of architecture; and the remainder is sold in the neighbourhood.

'I saw,' says Dr. R., 'a handsome house, built in the summer of 1815, and now occupied by his head gardener: the doors, windows, floors, stairs, as well as the roofs, joists, spars, &c., were all of Scotch larch, and spruce fir, of Holkham growth; and his timber yard, from the same source, displayed no mean quantity of rough timber, balks, planks, &c. In the plantations, several of which I rode through, the oaks and Spanish chestnuts have already attained a considerable size, and are in a state of vigorous growth; some of the oaks, particularly those near the house, being the largest I ever saw, of the same age; these in time will, obviously, become the most valuable timber on the estate; in time they may even supply our future wooden walls, and, under a change of form, navigate the very sea which washes the shores on which they are now growing.'

Firs, of the different species, the Scotch larch, spruce, and silver, have attained a sufficient growth to be applied to the above-mentioned useful purposes; and, like the oaks, for many years to come, will have an increasing value. There are also other trees, which, though of a subordinate character, Mr. Coke turns to a good

account; the *Salix cœrulea*, or the French willow, at six years' growth, can be advantageously riven into laths, which are very tough, and answer the purpose quite as well as those made of foreign deal: the *populus monilifera*, the Canada poplar, also grows very luxuriantly. The wild cherry is also cultivated extensively, and its timber is valuable for all building purposes, when of forty or fifty years' growth. Another poplar, the black Italian, said to be the most profitable for planting of all poplars, is judiciously planted as a screen, round some barns and farming buildings.

Mr. Coke's system of letting his estates is not less excellent than his farming system: a long lease and a moderate rent cannot fail to be highly advantageous both to landlord and tenant; to the occupier it affords every encouragement to invest capital, and every motive for the skilful cultivation of his farm; and to the landlord eventual permanent profit in the improved value of his estate. The following have been the important results:—Mr. Coke's tenants are enriched, and his property has increased in value to an almost incredible degree. He gives twenty-one years' leases, and he has already seen the termination of such leases on most of his farms, and, though he continues the same encouraging system of long lease and moderate rent, his present relatively moderate rents, relatively as to the improved state of his farms, have admitted the total increase of his Norfolk rents to amount to the enormous sum of £20,000; an increase in the value of landed property, a creation of wealth, probably, unexampled, except in the vicinity of large towns, or in populous manufacturing districts. On the renewal of many of his leases, he has given the tenants 'the bonus of a capital house: these afford not only every possible accommodation to his tenants' families, but are striking ornaments to the country.

Irrigation is one of the superior improvements in agriculture, which Mr. Coke has advocated and adopted; but this can, obviously, be only effected in peculiar situations, and can only be undertaken by persons of considerable capital. The situation of Holkham does not admit of irrigating to any extent; but even here Mr. Coke exhibits a water meadow, where it could be little expected; it is near the house at Longlands, his principal farm, and rather on high ground; the source is a large pond, originally formed for the common purposes of a farm-yard. There may be a spring which feeds it in some degree, but its principal supply is from the heavens. When the pond is full, the water is well-directed to an adjoining meadow, whose level is a little below it. To a certain degree it has its use, but the supply of water is inadequate to an extensive and long continued irrigation.

'The best specimen of complete irrigation, on any of his estates, is at Lexham,' says Dr. Rigby, 'which I have seen, when visiting his respectable tenant there, Mr. Beck. A small stream, tolerably well supplied, runs through a little valley of ordinary meadow land; a large reservoir of several acres has been formed by an embankment, and raised so much above the contiguous grounds as to admit of many streams, in

different directions, being conveyed over an extensive surface of land, to which they impart a wonderfully fertilising principle, and by anticipating the common period of the growth of grass in the spring, and by continuing it luxuriantly during the whole seasons of vegetating temperature, the supply of grass is much more early, and infinitely more abundant, than could be obtained on the land of such a farm under common circumstances. The grass which first shows itself in the spring, in the watered meadows, is the *festuca fluitans*, the long and broadish leaves of which are known to float on the surface of water, in ditches, &c. The cattle are very fond of this grass, and, on being first turned into these meadows, run with eagerness to get it. These water meadows were well designed and executed under the direction of Mr. Smith, the engineer, but at a very considerable expense. Mr. Coke, who has given a long lease of the farm to Mr. Beck, is said to have been at half of the expense; and, in addition to it, he has built him an excellent house, on a rising ground, and at a proper distance from the water, which is here as much a feature of decoration and beauty as in any gentleman's ground; and the whole would form a picturesque scene, were more trees growing on the opposite side of the water.'

Dr. Rigby afterwards visited Holkham at the sheep-shearing. At this time, he says 'considering the extreme dryness of the season, the crops, particularly the wheat, were excellent. The Devon cattle were not only beautiful, but, by the state of their flesh, they betrayed no marks of the prevailing drought, it being a peculiar excellence of this stock that they will keep themselves in good condition in moderate pastures. The flocks of Southdown sheep appear to be every year improving, showing the judicious and unceasing attention paid to them. About three o'clock the company returned to the hall, and not fewer than 300 persons sat down to dinner in the statue gallery, Mr. Coke presiding at one table and the earl of Albemarle at the other. After giving 'a fine fleece and a fat carcase,' Mr. Coke proposed the health of 'lord Erskine, who sat near him. He should not, however, he said, give him as a lawyer, but as a farmer. The circumstance of his lordship having, of late years, turned his attention to agriculture, and having been, several times during the morning engaged in conversation with him on the subject of Merinos, whose cause he seems disposed to advocate, he was induced to anticipate some observations from his lordship on that subject, and, in a vein of humor, alluded to the rudiments of his lordship's agricultural studies, and the progress he had made. I am led to hope, said Mr. Coke, that we shall hear something instructive, especially on the subject of Merinos, which, you know, has many times been discussed in this room with great good-humor. It will give me pleasure, and I am persuaded it will give you all pleasure, to hear his lordship inform you of his great success. I am fond of instruction, have met it many times where I did not expect it, and look for it now very anxiously.—I know his lordship's abilities; but I fear the subject is

a difficult one, as I have never yet known a good carcase supported under 10 or 12 lbs. of such close and fine wool; and I have long been convinced that good carcasses and fine fleeces together, early maturity and a quick return, which we have in the Southdowns, will always beat the Merinos.—Their backs are as narrow as rabbits, and their faults appear to be incorrigible. Perhaps every one here may not think so, and I know there is a considerable party of public-spirited gentlemen who still persist in the Merino cause. I am persuaded they do it from the best motives: I heartily wish them success, but I do not envy them; I do not envy my honorable friend here, and hope he has reaped a plentiful and encouraging profit. For my part, I am governed by experience, and I always make haste to discard error when I find it out. I must beg, however, to relate an anecdote, which will show you what immense progress his lordship must have made in these studies, since the first time I had the honor of his company here, to venture upon such a subject. He was riding with me in a barouche by a field of wheat, some years ago, at a time when he certainly was not prepared to enlighten us on the difficulties of the point in question, and he suddenly clapped his hands together, and exclaimed, 'What a beautiful piece of lavender!'—but since that time, gentlemen, his lordship is, I know very well, considerably improved, and may be thoroughly prepared to defend the cause upon which I have so long been in an error, if it be one.

His lordship, in reply, commented, in a strain of pleasantry, on Mr. Coke's observations relative to his studies in agriculture. He had studied it under an able master, and, if he had made no considerable progress, it must be owing to his own want of capacity. He, however, assured the company that he did know wheat from lavender; but he certainly had made the exclamation alluded to; and was it to be wondered at? He had seen wheat many times before; but, never having seen any so admirably cultivated, was a sufficient reason for his not knowing the plant again.—He had seen such facts and examples at Holkham, that he had been struck with the conviction that agriculture must be an important branch of knowledge: important not only to the good of mankind, but to mental improvement; to the understanding of a man, and to the science of a philosopher. He had indeed, his lordship observed, commenced his study of agriculture late in life, when, perhaps, the vigor of his attention was spent in other pursuits, more important to him at the time, but never more pleasing. It is this day, said his lordship, forty years since I was called to the bar;—I have studied Coke at Westminster, and I now study Coke at Holkham. But the difference between these studies is very great; they differ as the laws of man differ from the laws of nature; as a complex and opposing system of facts and precedents,—where no two cases can be perfectly parallel, where human interests and passions are perpetually excited, where human evidence is often incomplete, often doubtful,—differs from that order and regularity, where the finger of nature points to certain conclusions; where

the fruits of our skill and labor rise to give testimony; and where the very earth is eloquent, and speaks nothing but the truth. If, continued his lordship, we only consider the subject of manure, we shall perceive one of the most striking bounties and benefits of the divine ordination, and of that wisdom with which we are blessed, in a thousand ways, without our knowing it: this very substance, the refuse of every thing, had it been useless, must have accumulated in heaps, intolerably noisome, and perpetually pestilential; but, by the blessing of providence, it is every man's interest to remove these otherwise increasing mountains of filth, and by decomposition, in various ways, concealed in a great measure from us, it gives increase to our fields, and adds to the means of industry and the reward of the husbandman. In allusion to what he was expected to deliver in the Merino cause, his lordship very pleasantly waived the subject, by saying that it was a subject on which he was yet considerably deficient in knowledge and experience, and he must take a few more lessons before he could venture to sum up the evidence before such a jury.

In proposing the health of lord Lynedock, Mr. Coke took occasion to advert to the Scotch husbandry. He alluded to a report which had prevailed, which had perhaps been industriously circulated, and eagerly listened to, as all calumnies were, by many persons. It had been said that he had found fault with the agriculture of Scotland. Found fault! said Mr. Coke, to be sure I did, and I praised it likewise. But the first only is remembered by those who would malign my observations. If there be a fault, it ought to be noticed, or how should we improve? The truth is, the agriculture of Scotland deserves very great praise, and especially their turnip husbandry, which equals any thing I ever saw. If I had wavered before in opinion, I should have been at once convinced of the decided superiority of the ridge system, by what I saw in Scotland; and I now think it my duty to declare my conviction that the ridge system of cultivating this crop is not only the best for producing the largest crops, but it will obtain, what can never be insured by the other, a certain crop. By what we witness this year, notwithstanding the drought, the crops in this neighbourhood, by the ridge system, are both forward and promising; and, as this is the foundation of the success of the whole course, it must be the most important point in our favor. Mr. Coke then congratulated the neighbourhood around him, for having very generally adopted this system, for which they were much indebted to Mr. Blaikie. The fault he had found in Scotland, Mr. Coke observed, was that the land, with the crop after turnips, was not so clean as it might be, and he was induced to observe it, in order to draw the attention of the Scotch farmers to the probable defect there might be in cleaning the fallows; but he willingly allowed that they had a very troublesome weed in the north, which seemed to be peculiar to Scotland; and, as the root was a small bulb, it was difficult to be destroyed. It increased so much in the land before the field came to wheat, that the crop, if lodged, would be presently tied

down by the stems of this weed growing through it, and it could not rise to ripen the grain. He said he had visited lord Lynedock's farm, and he was beyond measure gratified at his reception. The noble lord had carried inoculation into Scotland; he thanked him for it, and it proved that this meeting did good.

In the course of this meeting, Mr. Coke stated that it had existed forty-two years. Upon no former occasion had it been so numerously attended: a proof that the motives for its establishment had met with the approbation of his neighbours, and that the result had been favorable to the country. He trusted that it would still increase in numbers every year, and that he should be honored with the company of all who desired to see agriculture cultivated on the liberal principle of a community of interest between landlord and tenant. When he began this institution, the land of Holkham was so poor and unproductive that much of it was not worth 5s per acre.—He began with a trial of the Leicester breed of sheep; but, by the advice of Mr. Ellman of Sussex, he was induced to adopt the Southdown breed, and to that admirable stock he much attributed the progress which Norfolk had made in cultivation. The extension of farms, where flocks were to be employed, was unavoidable. Such farms must be large; but if capital and skill were applied to them, and the flocks were made the means of increasing the corn produce, so far from its being injurious, as a question of political economy, experience had proved it to be highly advantageous, since he could state, from actual enumeration, that three times the number of inhabitants were maintained on the same space of ground as before; and the population of Holkham had increased from 200 to 600, within a few years back, since cultivation, by the union of capital and skill, had advanced. In all his parish there was scarcely a single individual, of any age, that did not find full employment, and they even wanted hands.—He had been applied to, some time ago, by the principal inhabitants of the three parishes of Holkham, Warham, and Wighton, to say that their poor-house was no longer wanted; that, in fact, it was a burden to keep it up; their poor were so much diminished, they had no use for it. And when he told them to consider well what they were about, and to look forward to times when the poor might increase upon them, they replied, they were convinced that, by the spirit of independence which their comfort inspired, and the certainty of labor, they had no dread of a reverse, for the whole district was industrious and moral.—The workhouse was therefore pulled down, and the aged and infirm were a small burden on the three parishes. The introduction of the drill husbandry, which he could now, from the most ample experience, recommend, had justified all the hopes he had entertained of it. It was the most profitable course a farmer could pursue, and, with the turnip crops, completed the Norfolk system of husbandry. He paid merited compliments to Mr. Blakie, his steward, for superior talents, indefatigable attention, and integrity in the conduct of his affairs, as well as for the many plain, practicable, and ingenious communications he had given to the public; and he

spoke, with warm eulogy, of the ardent manner in which his efforts had been seconded, not only by his own tenants, but by many of the noblemen and gentlemen, as well as yeomen, his friends and neighbours.

PART V.

OF IMPLEMENTS OF HUSBANDRY.

Upon this topic we can of course accomplish nothing more than a *selection* of the most approved modern instruments of agriculture. Many of the machines and implements involved meet our separate attention in their alphabetical places: others, as the peck, the mattock, the spade, fork, &c., seem too minute, and of too universal application, to be inserted in a work of this description.

We begin therefore with the most important, perhaps, of agricultural implements.

1. *Of ploughs.*—In our plate AGRICULTURE (Plate I.) are figures of ploughs, whose names are given. The first, the Roman plough, has good authority for its iron part or share, such as it is; but we are doubtful as to the wheels and handle.

The Roman plough was according to Cato of two kinds, one for heavy and one for light soils. There is a plough still in use in Spain, which is supposed to come the nearest to the Roman implement generally used. It is our fig. 2, plate I. RURAL ECONOMY.

Virgil describes a plough with a mould-board used for covering seed and ridging: to supply its place a sort of diverging stick was used, it seems, in the form described: this stick appears to have been inserted in the share head, or held obliquely and sloping towards the side to which the earth was to be turned. The Romans did not plough their fields in beds, by circumvolving furrows; but the cattle returned to the same furrow. Virgil also mentions wheel ploughs, which Lasteyrie thinks were invented in or not long before the time of Pliny, who attributes the invention to the inhabitants of Cisalpine Gaul. Lasteyrie gives figures of three wheel ploughs from a Sicilian model, and from Caylus's Collection of Antiquities.

Cato says, of ploughing, What is the best culture of land? Good ploughing. What the second best? Ploughing in the common way. What the third? Laying on manure. The Roman season for ploughing was any time when land was not wet: in the performance, the furrow is directed to be kept equal in breadth throughout, one furrow equal to another; and straight furrows. The usual depth is not mentioned, but it was considerable, as Cato says corn-land should be of good quality for two feet in depth. No scamm or balks (hard unmoved soil) were to be left, and, to ascertain that this was properly attended to, the farmer is directed, when inspecting the work done, to push a pole into the ploughed land in a variety of places. The plough was generally drawn by one pair of oxen, guided by the ploughman without the aid of a driver. In breaking up stiff land he was expected to plough half an acre; and in free lands an acre; and light lands one acre and a half each day. Land was ploughed in square plots of 120 feet to the side, two of which made

a jugerum or acre. We may here add, though a little out of place among mere implements, in most cases a crop and a year's fallow succeeded each other; though, when manure could be got, two crops or more were taken in succession; and on certain rich soils, which Pliny describes as favorable for barley, a crop was taken every year. In following, the lands were first ploughed after the crop was removed, generally in August; they were again cross-ploughed in spring, and at least a third time before sowing, whether spring corn or winter corn was the crop. There was, however, no limit to the number of ploughings and sarclings, and when occasion required manual operations; the object being, as Theophrastus observes, 'to let the earth feel the cold of winter, and the sun of summer, to invert the soil, and render it free, light, and clear of weeds, so that it can most easily afford nourishment.' (Theo. de Caus. Plant. lib. iii. c. 25). Manuring was held in such high esteem by the Romans, that immortality was given to Stercutius for the invention.

To return to our modern ploughs. In the 'Rural Economy of Yorkshire,' after the similarity of the principles that are requisite in the construction of the ship and the plough is noticed, and the difficulty of fixing and reducing them to a regular theory as nearly the same, it is observed that the art of construction in either case is principally attained by practice. In this district, says the writer, the ploughs of different makers pass through the soil with various degrees of facility and execution; nevertheless, though he has paid some attention to the different makes, he finds himself entirely incapable of laying down such particular rules of construction as would do his country any service, or his work any credit. Even the general principles of construction he must mention with diffidence.

The principal difficulty in the construction of a plough is that of adapting it to all soils, in all seasons, and to all depths. If the soil break up in whole furrows, every inch of depth requires in strictness a separate plough, or a separate regulation. Here rests the main objection to the winding mould-board, which admits no regulation in respect of depth. If the semi-arch, or nallow of the hind part of the mould-board, be raised sufficiently high to turn a thick furrow completely, it is of no use in turning a thin one. On the contrary, if it be brought down sufficiently low to turn a shallow furrow properly, it is impossible to turn a deep one with it in a workman-like manner. There is not room for it within the hollow, or semi-archway of the mould-board. The inevitable effect of this is, either the furrow is forced away wholly by the upper edge of the mould-board, and set on edge; or the mould-board rides upon the furrow, raising the heel of the plough from the ground, the bad effects of which need not be explained. An upright stern, with a moveable heel-plate to turn the furrow at any given depth, is, in this point of view, much preferable to a hollow mould-board; and, if its use in raising a crest of mould, for the purpose of covering the seed, be added, its preference is still more conspi-

cuous. But some of these inconveniences have been obviated by the invention of moveable mould-plates, as will be seen afterwards. Yet, in the construction of all sorts of ploughs, there are, notwithstanding, a few points or circumstances that ought to be particularly and in all cases attended to; such as the following: that part which perforates the soil, and breaks it up, and which is usually termed the throat or breast, should have that sort of clean, tapering, sharpened form, that is introduced with the greatest readiness, and which affords the smallest resistance in its passage through the ground. According to some, this part should be long and narrow, making an acute angle with the beam, as the length of the breast is supposed to have a tendency to preserve the flag from being broken, on account of the surface for its support being longer; which is a circumstance of consequence in the ploughing of old lays for wheat, pease, and other similar crops; as, by such means, the growth of weeds through the broken ground is prevented. And the resistance of the earth against the breast is likewise lessened, in proportion to the acute angularity of that part against the beam of the plough. The mould-board should also have that sort of curved, twisted, or hollowed-out form, which is best calculated to lessen resistance, and at the same time give the furrow-slice the proper turn. And the beam and muzzle of these implements should likewise have such a construction as that the team or moving power may be attached in the best and most suitable line of draught, as this is a circumstance of great importance, when several animals are made use of together, that the draught of the whole may coincide in the most perfect manner, and with the utmost exactness. Likewise, in the construction of every sort of plough, much regard should be paid to the weight, so that they may have sufficient strength for the purpose, without being unnecessarily heavy. Much may be done in this intention, by lessening the quantity of wood in those parts where there is no particular stress, while it is retained so as to have full power in the others. This has been much less attended to in the making of ploughs than its importance would seem to demand.

It is noticed, in the Agricultural Survey of the County of Essex, that the throat at the fore end or neb of the plate or breast in the Norfolk, and most other ploughs, with the exception of the Rotherham, rises from the upper surface of the share too perpendicularly, and too much at right angles to the line of friction, or pressure of the earth the plate has constantly to act against: working thus abruptly in the ground, the slice or furrow is violently torn, or burst from off the ground hand, broken and imperfectly turned over, instead of being gradually cut, raised whole, and whelmed over; as will always be the case, when the plough enters the ground obliquely, and at a proper angle; and that the plate or mould-board is properly turned for raising up, and turning the slice completely over. It is a clear position, proved by experiment, that a semi-ellipsis is the true form of throat which is necessary in ploughs, which is the part

or space from the share point to the junction or approach of the breast to the beam: and that there is found a remarkable variation in the form of the breasts, or mould-boards of the ploughs throughout the northern parts of the same district, and which is chiefly in the degree of concavity or convexity. Some wheel-wrights and farmers prefer a form rather concave, a flatness in the fore part, which joins the share, and which gradually fills up as the sweep recedes; others like it neither concave nor convex; and there are many ploughs in which the convexity is extremely great. The great length of the breast, in some ploughs, is a circumstance which gives steadiness to the implements; but, at the same time, it is probably the means of increasing the draught to the horses in a great degree. The shortness of the breast, if the curve or sweep be in perfection, or wears equally every where, may lessen friction, and certainly does, if the earth be loose; but it probably may not have the same effect in the first earth, upon a stiff layer. It is, however, a pretty general opinion, that it lessens it in all cases. A great variety of breasts, of different forms and constructions, are represented in the plates upon ploughs, in the Agricultural Survey already referred to, which are well worth consulting by the enquirer.

The old *Norfolk plough* of our plate I. AGRICULTURE is held in much esteem in that, as well as some other light districts, as performing the work in an easy and expeditious manner. The carriage and wheels in all ploughs of this nature, however, form objections to them, and render them clumsy implements. The wheels added to them in our figure are an improvement.

The head and beam are short; the carriage part and wheels stand very high, of course the fore end of the beam is much elevated, by which advantage is gained in driving the horses, as it is usually drawn by two horses yoked abreast, the ploughman directing them by reins.

Of the swing sort, the Rotherham plough is perhaps the most popular. See AGRICULTURE, plate I., figure 3. It is a light useful plough for all the less heavy sorts of soil, and has certainly much superiority where one plough is only required, and where the advantageous and economical method of performing the work with one man and two horses without a driver is used. It is in much estimation in all the West Riding of Yorkshire, and is said in the Agricultural Survey of the Riding district to have been invented by Mr. Joseph Foljame, of Eastwood, about seventy years ago. In that district its usual dimensions are

From the end of stilt on landside to the point of the share	Feet.	Inches.	} whole length
From the end of beam where inserted into it to ditto, of ditto	7	4	
Length of beam	3	0	} bottom working surface.
Width of the head in the widest upper part	6	0	
Ditto of ditto at lowest part	1	4	
Ditto of share behind the wing	0	9	
Ditto of share behind the wing	0	3½	
Length of surface on which the plough touches the ground	2	10½	} bottom working surface.
Height from ground to top of beam where coulter goes through	1	8	
Width between stilts at the end	2	6	
Height of ditto from the ground	1	11	
Weight of wood and iron work, about 1½ cw			

And it has also a cople rack, or hock with teeth, to admit of more land being given to the plough, or the contrary, which is particularly useful in many cases.

It is noticed that with a few trifling alterations it is made use of over the whole district, and from that being often called the Dutch plough, it is supposed to have been originally brought from Holland by the inventor.

In Mr. Bailey's improved Rotherham plough the mould-board, which is of cast-iron, is so formed that the sod to be raised presses equally against it, in every part, from the sock point to the place where it leaves it; and it varies from other mould-boards, in not beginning to take its rise from the bottom of the heel, but at least twelve inches farther forward towards the sock, and in being cut away at the bottom opposite the heel, about three inches high, from the sole, by which the turning of the sod or furrow-slice is said to be much facilitated. Thus improved, these ploughs have been found to answer perfectly in different trials, and have been allowed by those who have seen them

at work to go with more ease to the teams than most others. It has been supposed that the beam, from its crooked form, which is obvious in some of its improvements, by being fixed so low down in the part next to the handles, makes the plough require less force, and to go in a more sliding manner. And that from the fore end of the beam being so much higher than the hinder part, the holder of the plough has more power, as the draught does not oppose so much resistance to him; for, if the beam were fixed to the handles much higher, as is usually the case in other ploughs, this plough would be constantly rippling on the point, and in that way increase the weight of draught. And where it meets with any resistance, such as a stone, it is liable to rise up, while in this form it proceeds in a sliding manner, which affords a steadier motion, and renders it more easily held. Besides, it is much stronger; particularly in the part where the left handle and the beam are joined, underneath the mortise where the tenon of the beam; by which the bearing of the ploughman on the handles does not in the least affect that part,

which in other ploughs is the weakest. In this improvement of the Rotherham plough the mould-board is so constructed at the breast as to have a slight degree of convexity, instead of being concave, as is often the case, by which the furrow-slice is supposed to be prevented from slipping down; and by the keeping the lower part from the ground, when it comes to the turn of the breast, it falls off; consequently, as the furrow-slice is rested on or by the side of the breast, when the plough has advanced twelve inches the work is finished. By this improvement it is supposed that the plough will turn a furrow of any extent, from four to eighteen inches, where requisite, and the same in depth; as the plough that will produce a wide furrow and turn it well is capable of ploughing deep: the convexity of the breast also causes it to clean itself better, which is a desirable property, as it is thereby rendered less heavy, and less resistance afforded by one portion of earth being prevented from rubbing upon another, and at the same time the work performed in a more perfect manner. The coulter has likewise a position so as to cut in a slanting manner, which causes any resistance to rise up more expeditiously, and the land to be opened with more facility than where it has a more perpendicular direction. Where this improved plough is employed with more than two horses abreast, the additional ones must be put before the pair, as it has not land enough to follow single horses.

Wheels have been added to these ploughs for particular purposes; and with either one or two fixed near the points of the beams, without any carriage parts, they have been found to pass through the soil in a very light, easy, and steady manner, and where there are two to require no holder in many cases, except in setting in turning out of the work at the ends of the ridges.

The *Northumberland* or *Cumberland* plough is only an improved plough of this kind.

Small's chain plough is esteemed one of the best of the swing kind, and seems capable of very extensive application. It has its name from that of the inventor, who constructed it about forty years ago. It is neatly formed, and very light in its appearance, but at the same time, from the addition of the chain, possessing great strength. It is, therefore, capable of being employed in strong rough sorts of soil, where other sorts of ploughs are liable to be destroyed, as when the share, or even the coulter, in this implement, meets with any sudden impediment or obstructing cause, the stress is immediately thrown upon the chain instead of the beam. The sock is formed with a fin or feather, by which the firm earth in the bottom of the furrow is cut and moved more readily, and in a more complete manner than could be done by the sock in the common plough. In this plough the mould-board is mostly made of cast-iron, having a gentle curve, by which the furrow-slice is thrown off with the least possible resistance. It is supposed by Mr. Donaldson to be on the whole one of the best constructed swing-ploughs for all sorts of soils. It is capable of ploughing, with one man and two horses yoked abreast without any driver, more than an acre a day with the

greatest ease. A plough of this sort is shown at fig. 1., plate II., RURAL ECONOMY.

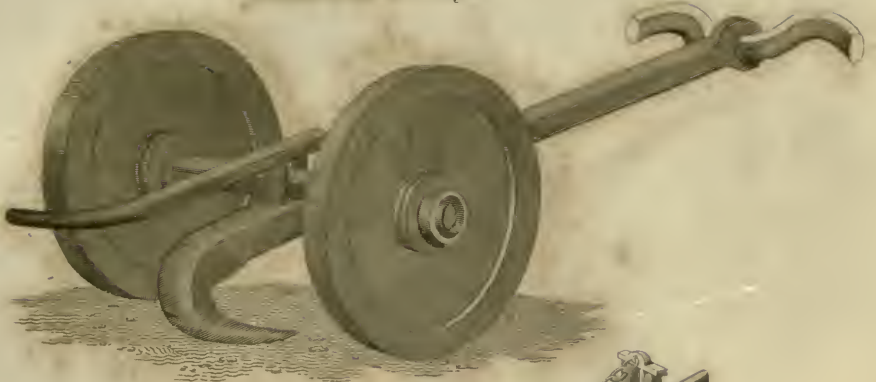
Lord Somerville's single plough is also a plough of this sort, in which the throat is sharpened, and the mould board rendered moveable in the manner of his double furrow plough, shown in fig. 5 of plate AGRICULTURE. It is capable of being made use of with advantage in breaking up deep stiff soils, as from the moveable nature of the extreme part of the mould-board the furrow-slice can be laid more or less flat.

Ducket's skim-coulter, or *trenching* plough, is an implement of this sort, capable of being employed with great advantage where the surface is coarse or grassy. The principle upon which this plough operates is that of trenching ground in the practice of gardening, or depositing the surface spit of earth in the bottom of the preceding furrow, and placing the second, or that taken from below, upon it. Where the soils are sufficiently deep it is capable of performing its work to a considerable extent. It has been observed by lord Somerville, in a little tract on ploughs and oxen, that the skim requires a perpendicular direction, and that the coulter-hole should be removed farther from the throat and share, as in the common position it would choke when in work.

The use of the *paring plough*, the fourth figure of the plate AGRICULTURE, will be shown in that part of this article which treats of 'preparing' land on the arable system,

Plate I. RURAL ECONOMY, fig. 3, shows a plough to be made entirely of iron, to which a new kind of share is attached, the invention of Mr. Finlayson. This share, *a*, instead of having its cutting edge curved, or forming an obtuse angle with the land side, is made straight, and extending nearly the whole length of the mould-board, at an acute angle with the land side. At the back part of the share a triangular piece, or wing, *b*, is to be introduced occasionally by screwing its pin into a hole in the share, for the purpose of enabling it to turn and accommodate itself to the way of the plough. The intended purpose of this wing is to cut the clods of the earth, and break them in a perpendicular direction. In order to prevent the plough from choking at the coulter, the beam is made to curve upwards as seen at *c*, the coulter being introduced at the under side, and made fast by wedges. Another contrivance to effect the same object is shown at fig. 4, and consists in opening the beam by lateral curves, *c, c*, the coulter being attached by screw bolts, and rounded off at top. By these means, should any stubble or other vegetable matters accumulate in front, they would be enabled to rise over the top of the coulter without choking or obstructing the progress of the plough. For the purpose of regulating the depth at which the share shall cut the ground, the shackle by which the plough is drawn is to be shifted higher or lower, at the muzzle or nose of the beam. This is done by means of a screw, *d*, in fig. 3, which passes through the bolt of the shackle, and, by being turned, moves the shackle higher or lower, and thereby causes the share to be drawn through the ground at a less or greater depth beneath the surface, as circumstances may re-

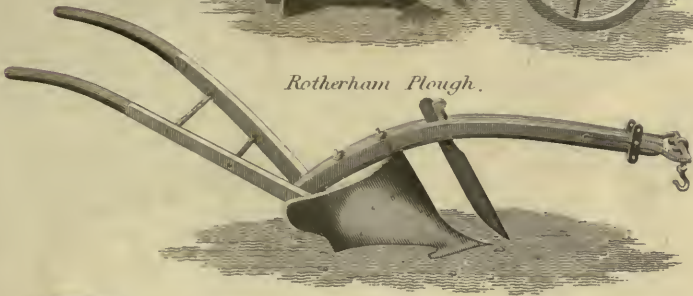
Ancient Roman Plough.



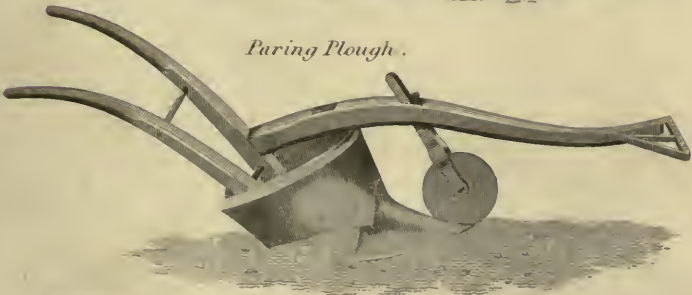
Old Norfolk Plough.



Rotherham Plough.

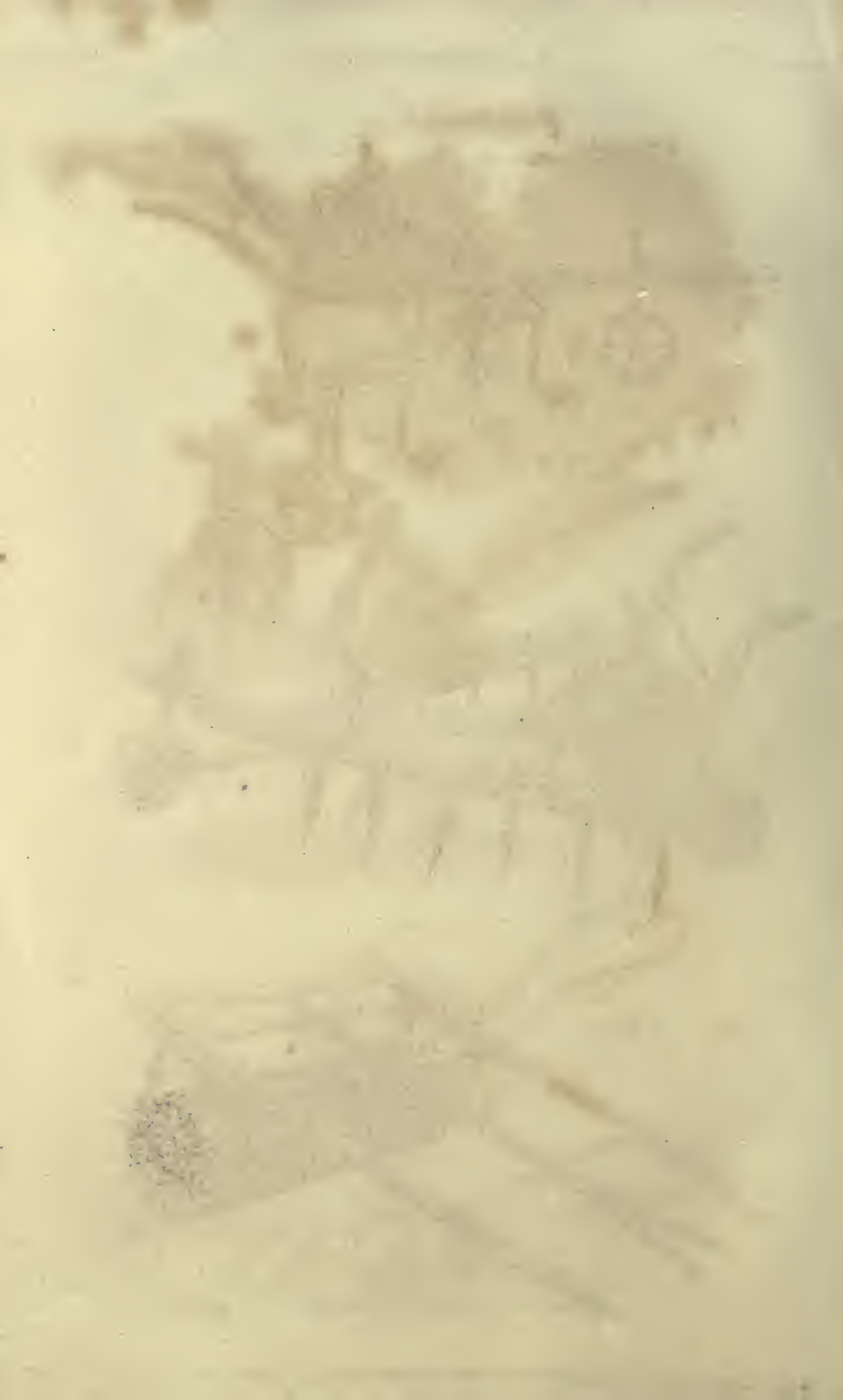


Paring Plough.



L^d. Somerville's double furrow.

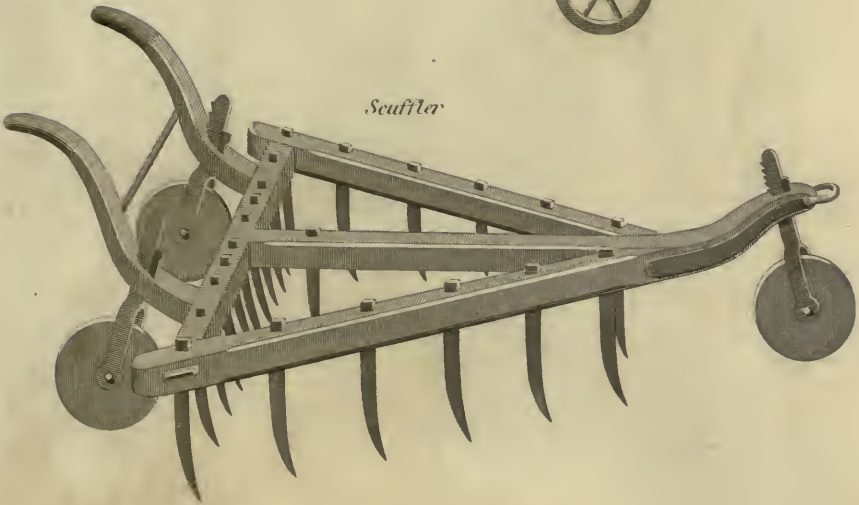




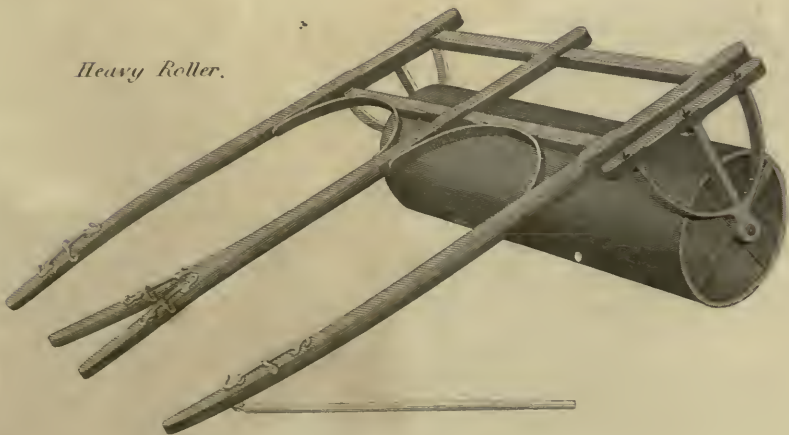
Lester's Cultivator.



Scuffler



Heavy Roller.



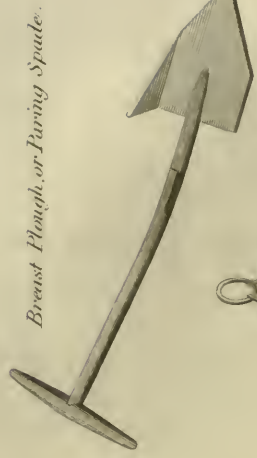


AGRICULTURE.

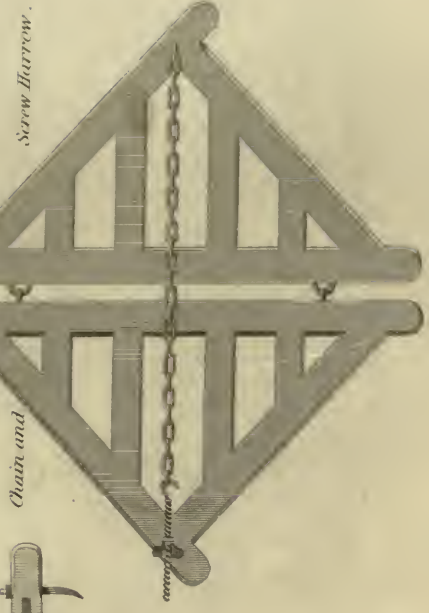
First or Twitch Harrow.



Second or Fallow Harrow.



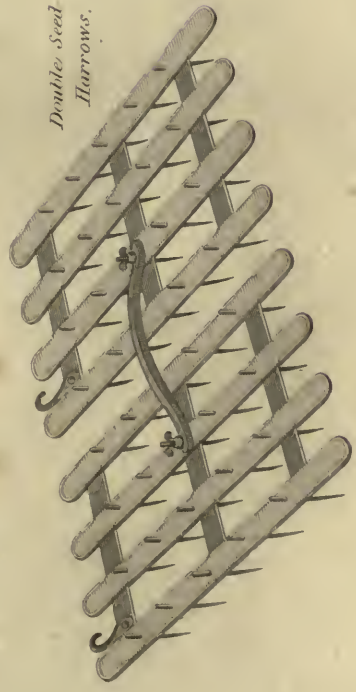
Breast Plough, or Paring Spade.



Screw Harrow.

Chain and

Double Seed Harrows.

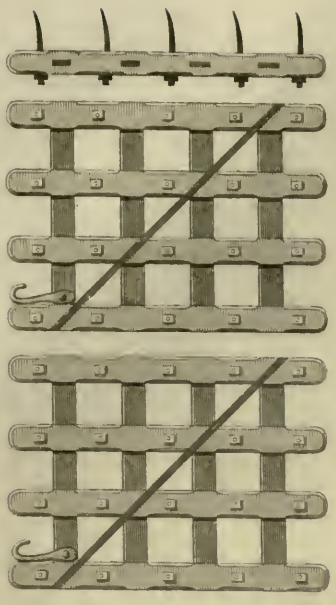


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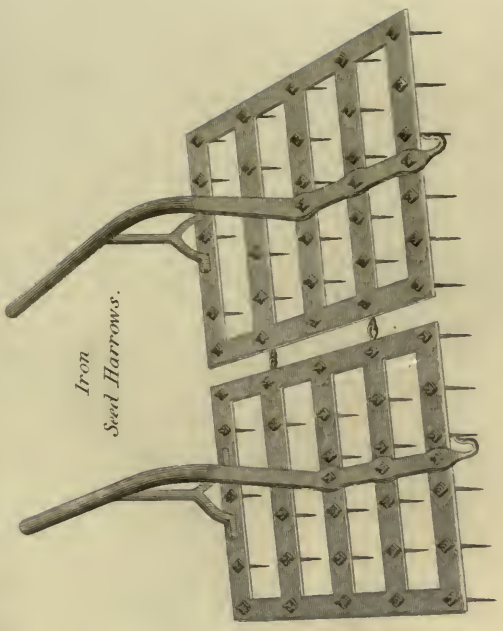
Common Seed Harrows.



Field Roller

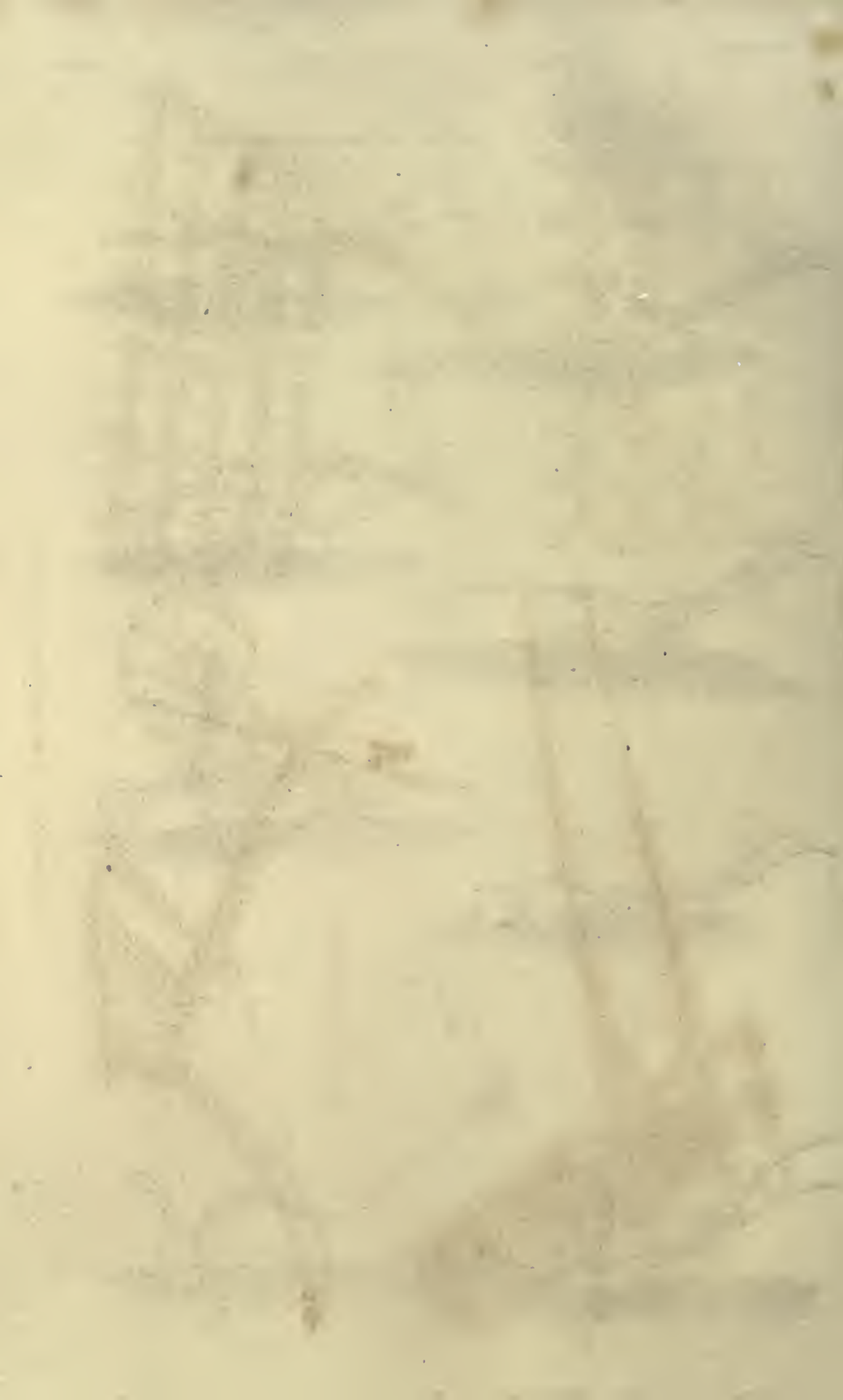


Iron Seed Harrows.



Improved Norfolk Plough.





RURAL ECONOMY.

Ploughs

M^r FINLAYSONS

IMPROVED PLOUGHS AND HARROWS &c.

Fig. 3.

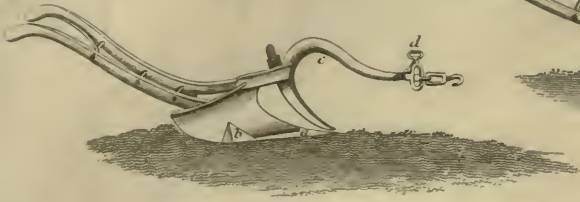


Fig. 4.

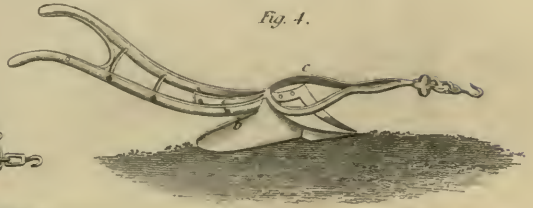


Fig. 5.

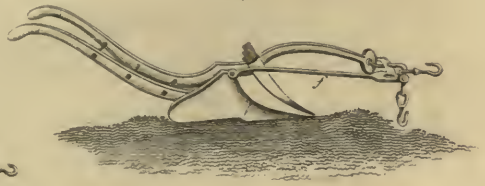


Fig. 6.

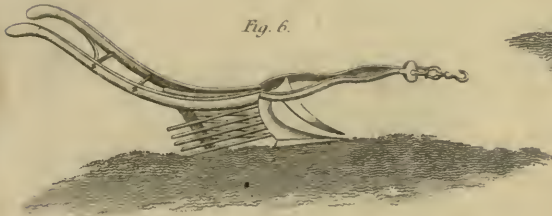


Fig. 7.

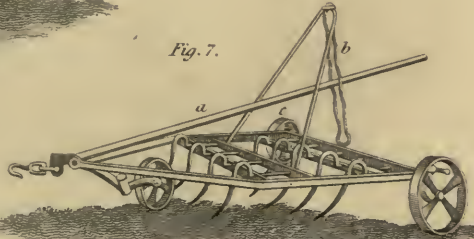


Fig. 10.

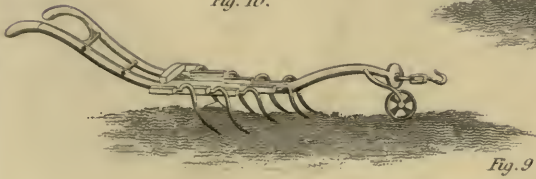


Fig. 9.



Fig. 8.



Horse Riving Plough
Fig. 1.

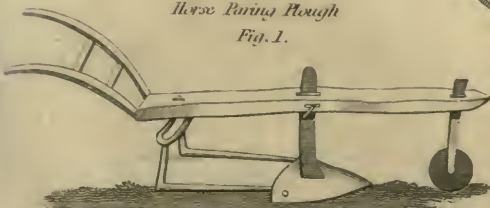
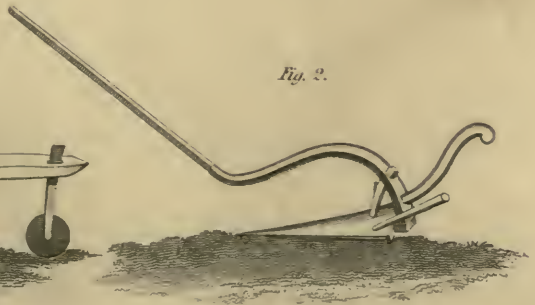


Fig. 2.



Ploughs & Grubbers.

Fig. 1.

Small's Chain Plough

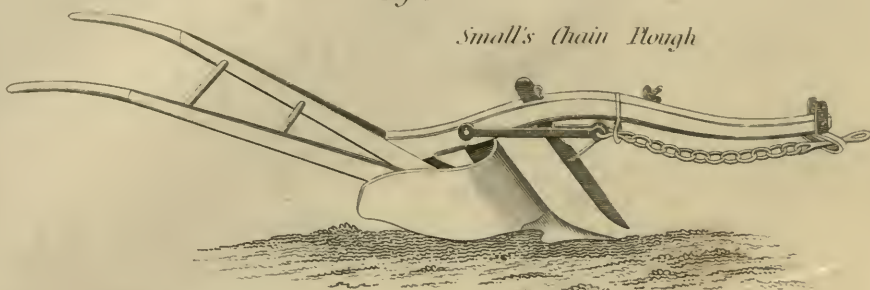


Fig. 2.

L^d Sommersville's Single Plough

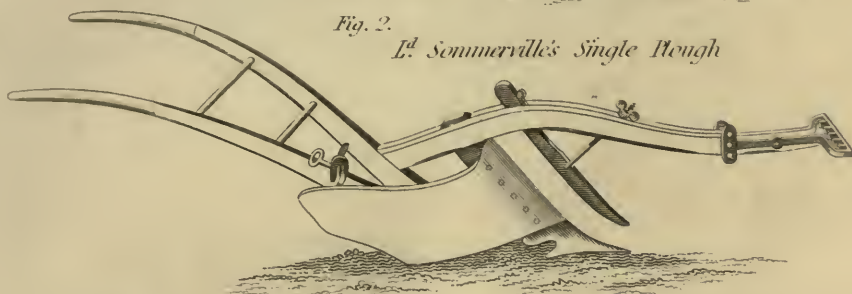


Fig. 3 *Ducket's Skimcoultter*

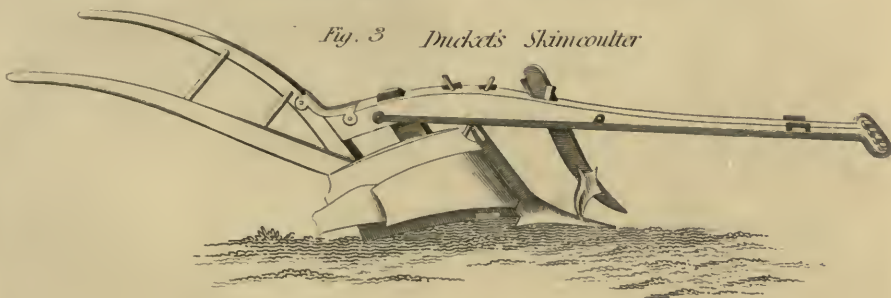


Fig. 4.

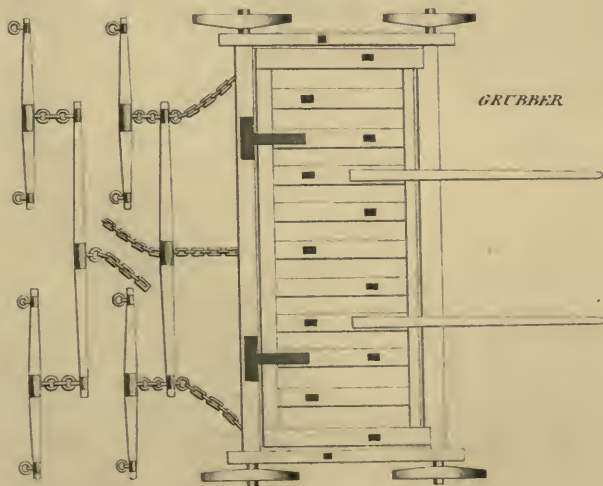


Fig. 1.

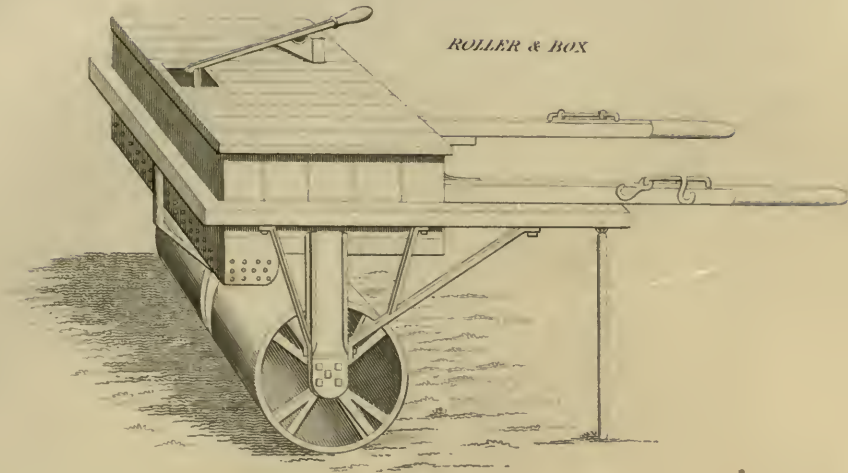


Fig. 2.

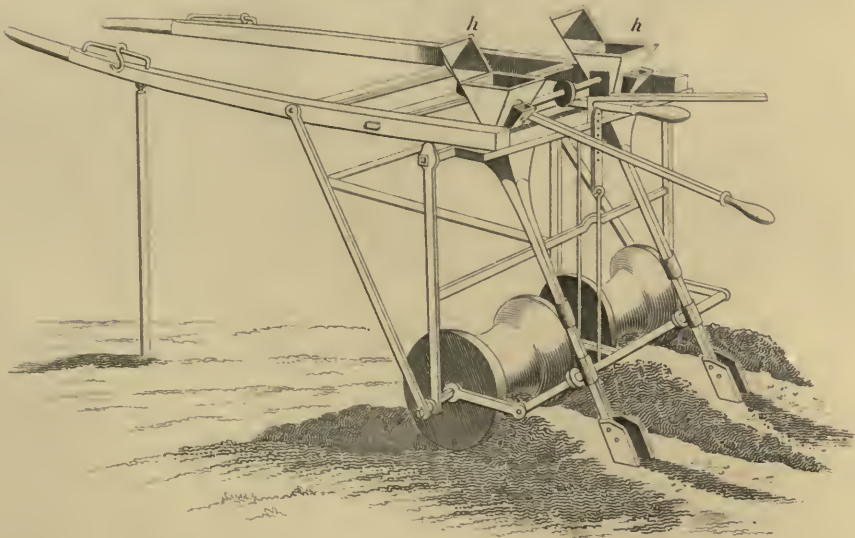


Fig. 3.

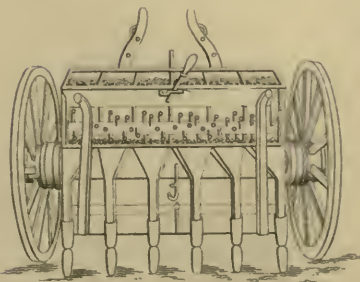
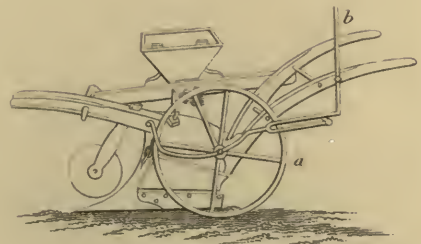


Fig. 4.



quire. The mode of adjusting the lateral draught of the plough so as to give the share more or less land, and also to enable it to be drawn by a single or double team of horses, is by the addition of a bar *f*, fig. 5, to the end of which one of the drawing shackles is to be attached. The plough, shown at fig. 5, is constructed in every respect upon the ordinary principles of what is called a Scotch plough, the side bar only excepted, which by sliding horizontally, in a lateral direction upon a plate *g*, may be set at any angle to the beam, and, being there fixed by a bolt, will cause the plough to follow a certain course to which the draught by the adjustment of the bar will incline it.

The skeleton plough, fig. 6, designed for wet land, is constructed of bars set in the usual form of the mould-board, and landside; these bars may be either square or round, and set by screws or bolts, cradled together so as to produce the general figure of those surfaces. The object of this construction is that the earth shall not adhere to the surfaces, but pass through between the bars, and by that means allow the plough to clear itself as it proceeds.

Fig. 7 represents the improved harrow; it is formed of bars, which support a peculiar sort of tines (shown detached at fig. 8, and another form at fig. 9). The intention in forming these tines with rounded heads is that the stubble, roots, and other vegetable matters, may be enabled to rise over the top of the tines, and clear them. In order to regulate the depth at which the tines of this harrow shall penetrate the ground, the carriage of the fore-wheel is connected to a lever bar, *a*, by the raising and lowering of which the nose of the harrow is depressed or elevated to any required distance from the ground, and consequently the depth to which the tines are intended to penetrate will by these means be determined. The lever that regulates the fore-wheel is held at the hinder part of the harrow by a spring-guide, *b*, consisting of two rods placed close together with swells or bands, forming open spaces at several parts for the lever to rest in. When the tines are intended to penetrate the ground to the greatest depth, the handle of the lever must be raised to the top of the guide; but, when the tines are to be drawn out of the ground, the handle must be pressed upon so as to cause the lever to fall to the bottom of the guide, the elastic lateral pressure of the guide holding the lever in any intermediate position to which it may have been shifted for adjustment. As it is frequently necessary to lift the tines of the harrow out of the ground instantly, without stopping the horses, as in turning at the headlands, that may be done by merely pressing upon the handle of the lever. The hinder wheels of the harrow are also to be raised or lowered to correspond with the fore-wheel, and this is done by means of screws, *c*, *c*, which pass through the end bearings of the frame into the axle of the wheels. The last improvement proposed is a horse-hoc, or drill-harrow, with peculiarly formed tines attached to the frame-work, as seen in fig. 10. One of these tines has been shown at fig. 9, and before alluded to, as designed to permit the stubble to rise over its top, and thereby to relieve the hoc or harrow from choking. At the sides of

this hoe scufflers are introduced, their extremities being formed like shares for the purpose of cutting away obstructions.

The inventor has, we understand, received testimonials from a number of highly respectable agriculturists, expressing their unqualified approbation of the efficacy with which these ploughs performed when employed upon rough and unbroken ground, for which they are particularly designed: and the manner in which they throw off the stubble, permitting those obstructions to escape without clogging the progress, is obviously calculated to diminish the labor of draught, as well as perform clean work.

2. Other harrows are exhibited, AGRICULTURE, plate II., as the first, or tusset harrow, and second, or fallow, with their teeth separately underneath. Then follow the double seed and chain and screw harrows. By mistake the plate containing the common and iron seed harrows has been numbered plate II. of AGRICULTURE, as well as that containing the ploughs; but the figures with these inscriptions speak sufficiently for themselves. The field roller of this plate is a very useful instrument: its weight being of course adapted to the land.

Harrows have not undergone much improvement in their construction; the principal point in which they have been rendered more beneficially applicable and convenient for use, appears to be in the form of the frames; the method of attaching the draught; the position and manner of fixing in the tines or teeth; and the directions of the bulls or solid parts.

It has been justly hinted by a late writer that there is no one harrow, whatever the nature of its construction may be, that can be applicable to every description of soil, or which can operate with equal effect and advantage on such lands as are rough and smooth, loose and solid, &c. It is necessary that they should constantly be fitted to the particular nature of the soil, and the peculiar uses to which it is devoted.

In the lighter sorts of ground, it is obvious that smaller and lighter sorts of harrows, with shorter teeth, may more fully answer the purpose than in such as are strong, heavy, and tenacious, or which have been lately broken up from the state of old sward, and that of common moor heath, and other sorts of waste, where they should have much greater weight and length of tines. It is frequently the practice, where the soil is rough and stubborn, as in some instances of fallowing stiff clayey lands, to unite two common harrows together, in order more completely to reduce and break down the lumpiness of such grounds. And in the view of effecting these purposes, especially where the soil is stiff, adhesive, and much matted with weeds, it has been found advantageous not to have the harrows too thickly set with tines, by which they are liable to become choked up, and prevented from working in a proper manner.

The hitching or riding of harrows upon each other it has been attempted to remove, by having them constructed with running bulls, which are said to answer the purpose. It has also been suggested that inconveniences of this nature may be obviated by the mere fastening of the different

harrow together by means of hooks and eyes, or what in some places are called coupling-irons; as in this way the different harrows are only suffered to rise and fall at the same time.

3. Lester's *cultivator* of our (second) plate II. AGRICULTURE, is a fine implement amongst the variety that have been suggested as pulverisers of the soil. The scuffler is of similar character and use. But the grubber, RURAL ECONOMY, plate II. fig. 2, is thought an improvement on both.—All the coulters but two are fixed in the bars; these two are placed in the side beams of the outer fame, and may be said to go more or less deep by pins and wedges. Land on which potatoes or turnips have grown, or that has been ploughed in autumn or winter may be so stirred by this instrument that a crop may be sown in spring without further use of the plough. Beans and pease have been thus sown in spring, says Mr. Cleghorn, on the winter furrow, after being stirred by the grubber: and barley also, after turnip, without any ploughing. In working fallow it is used with good effect.

4. The heavy roller of our (second) plate II. AGRICULTURE has been improved upon, in a compound or spiked roller, and in the roller and water-box, plate III. RURAL ECONOMY, fig. 1, of which latter a representation is given. The spiked roller is employed in working fallows, or preparing 'stiff bean land for wheat. In 'stiff clay-ground, when ploughed dry, or which has been much trod upon, the furrow-slice will rise in large lumps, or clods, which the harrow cannot break. In this state of the ground, the rollers commonly used have little effect. Indeed, the seed is often buried in the ground, observes Mr. Loudon, by the clods being pressed down upon it by the weight of the roller. 'To remedy this, the spike-roller has been employed, and found very useful; but a roller can be made, which, perhaps, may answer the purpose better than the spike one. This roller is formed from a piece of hard wood, of a cylindrical form, on which are placed several rows of sharp-pointed darts, made either of forged iron, or cast metal. These darts, by striking the hard clods in a sloping direction, cut or split them into small pieces; and, by this means, they must be more easily pulverised by the harrow.'

5. The best, and, as Mr. Loudon says, 'the essential *drill* machines, are French's for turnips, Cooke's for corn, and the drill attached to a plough for beans.'

Mr. French was an agricultural mechanic of Northumberland, who first suggested the great improvement of concave rollers in the drill machine. Since it has been usual to sow pulverised manure with turnip seed, two hoppers (*h*) (*h*) have been added to his invention. See plate III. fig. 2.

Cooke's improved drill and horse-hoe is shown in fig. 3, plate III. It can be used as cultivator, hoe, rake, &c. It is in general use in Norfolk, Suffolk, and various other parts of England. Its advantages are said to be, 1. That the wheels are so large that the machine can travel on any road without trouble or danger of breaking; also from the farm to the field, &c., without taking to pieces. 2. In the

coulters, with all the coulters, moving with great ease, on the principle of the pentagraph. 'o the right or left, so as to counteract the irregularity of the horse's draught, by which means the drills may be made straight: and, where lands or ridges are made four and a half or nine and a half feet wide, the horse may always go in the furrow, without setting a foot on the land, either in drilling or horse-hoeing. 3. In the seed supplying itself regularly, without any attention, from the upper to the lower boxes, as it is distributed. 4. In lifting the pin on the coulters-beam to a hook on the axis of the wheels; by which means the coulters are kept out of the ground at the end of the land, without the least labor or fatigue to the person who attends the machine. 5. In going up or down steep hills, in the seed-box being elevated or depressed accordingly, so as to render the distribution of the seed regular; and the seed being covered by a lid, and thus screened from wind or rain. The bean drill attached to a plough is shown fig. 4.—It can be fixed in the handles of any common plough.

The interval between the rows of drilled turnips, potatoes, and beans and peas, admit the employment of a horse-hoe, or hoeing-plough. Of this kind of machine there are many varieties. A very good one is described in the Northumberland Report (p. 43). The body is of a triangular form, and contains three coulters and three hoes, or six hoes, according to the state of the soil. A hoe of the same kind is sometimes attached to a small roller, and employed between rows of wheat and barley, from nine to twelve inches distant; it is also used in place of a cultivator, in preparing bean stubbles for wheat in autumn, and for barley in spring. For THRESHING and WINNOWER MACHINES, see those articles

ADDENDA.

We hoped (see our article AGRICULTURE) to advert at this period of the publication of our work to a more satisfactory adjustment of the corn question by the government.

At present (1829) we have only seen another temporary and tampering expedient resorted to in the shape of a new corn bill which we believe satisfies no party. We consider this, therefore, still an adjourned question; and shall only add some miscellaneous observations on its importance. We are indebted to a pamphlet published at the period of the passing of the corn bill of 1815 for the following observations:—

1. *On the variations in seasons, and their effects on agricultural productions.*—Although the price at which productions will sell is in some measure regulated by the proportion betwixt demand and supply, yet it is by no means in the ratio of the excesses to the demand in times of superabundance, or in the ratio of deficiency to demand in times of scarcity. Thus, if the demand be as ten, and the supply as eleven, the price will be depressed more than ten per cent. If, on the other hand, the demand be as ten, and the supply as nine, the price will be raised more than ten per cent. If the demand continue the same, and the supply be as twelve, the price to which the production will be reduced will be far more

than ten per cent. lower than it would have been with a supply at eleven.

It will not be necessary to carry this illustration farther, though it will be obvious that, in the case of excess of supply beyond demand, the depreciation will be much greater in a commodity that is quickly perishable, than in one that will retain its properties for a long period. Even in articles that lose none of their virtues by being preserved, but from their bulk require considerable space, the depreciation will be greater than in those which are more easily removed or stored at less expense. Thus potatoes have felt a much greater depreciation than wheat from their perishable nature; and, from being bulky, when raised at a distance from a large town or a populous district, they have not borne even the expense of conveyance to the consumers. The prices of commodities are also influenced in some measure, and occasionally in a considerable degree, by the prevalence of public opinion, as to the proportion between demand and supply; and, in articles of the first necessity, to a greater extent than in those of inferior consideration. This influence, however, is of a transient kind; and the opinion on which it is grounded is generally corrected before any very injurious effect is produced.

From the great variety in soil and climate within this island, the produce of our harvests generally does not vary so much as a slight observer would suppose. The wet seasons, which are injurious to our cold and heavy soils, are beneficial to those of the opposite description; and a summer of great drought, which parches the lighter soils, and lessens their productions, increases those of the heavier soils. There will, however, be variations in productiveness, but usually not to a great extent. Perhaps on a large average of years, not including one or two of very uncommon character, it will be found that, taking the standard as twenty, in the best years their production may have reached twenty-three, and the worst, not fallen short of seventeen; and that most of our harvests have been at some period between seventeen and twenty-three. If the views we have taken be tolerably correct, we may presume that for the past twenty years, if our production has been as twenty, our consumption may be estimated as twenty-one; and this estimate will be confirmed by the excess of our importation beyond our exportation of corn for that period, as shown by the public documents.

Previously to the year 1811 there had been for several years a gradual increase in the prices of corn, such as must have happened if, as in every other country, the population had a little preceded in its march the production of food. This increase had given a stimulus to agriculture; the capital which had accumulated in that branch of industry had been invested in making further improvements; some extraneous capital also was attracted into the same channel, and in consequence a greater portion of labor was exercised in cultivation than it had before received. The harvest of 1811 was miserably deficient; and, before one half of it was threshed, the deficiency became obvious; prices rose with rapi-

dity, and to a height scarcely ever known before. The advance in price came too late to produce much influence on the ensuing harvest. Some spring wheat indeed was sown; but its effect in aiding national subsistence was trifling, as the same land would probably have produced more food, if, as usual, barley, and not spring wheat, had succeeded to turnips.

The deficiency of the harvest of 1811 was not made up by that of 1812, which probably reached the average of our usual production, or one-twentieth less than our consumption. The same price thus continued, and, appearing to be almost permanently fixed at a rate that would pay the most expensive cultivation, it gave a stimulus to still greater agricultural exertions; no cost was spared in the purchase of manures; every portion of land capable of bearing corn was appropriated to that purpose; the usual and regular courses of cropping were generally deviated from; and a breadth of land sown, far exceeding what had ever before been done. Potatoes, which had borne a higher relative price than corn, were cultivated also to an extent before unknown.

The year 1813 proved highly propitious; all the different species of corn were favored by the seasons, whose variations seemed exactly executed as if to promote abundant vegetation; the weather whilst harvesting this crop was unusually favorable; and this bountiful supply, housed under such happy circumstances, proved as good in quality, as it was excessive in quantity. But the impression of its abundance upon the public exceeded the reality.

It is extremely difficult to estimate the quantity of excess in this year of singular character. As far as pretty extensive enquiry, and not inattentive observation, may enable us, we may attempt the calculation without the fear of erring very materially. Most of the farmers on poor lands, whose usual growth of wheat had been twenty bushels to the acre, in that year allow that their growth amounted to from twenty-four to twenty-five bushels; those on better lands usually producing twenty-four to twenty-six, produced from thirty to thirty-two bushels, and on the very best wheat lands some have stated their excess above the usual production to amount to eight bushels. Allowing difficulty of accuracy, and requesting that indulgence which the nature of the case requires, it will not be deemed presumptuous to estimate this great production at twenty-six, taking, as before, the average production as twenty, and the consumption as twenty-one: this will account, if tolerably accurate, for an enormous depreciation in price. The happy events which led to the peace followed each other in quick succession. Soon after our harvest was securely housed, the foreign ports were opened as well as our own, and a large importation of foreign corn was made. The words peace and plenty have been so commonly joined together that the public expected some union by which one must necessarily produce the other; as if a magical operation was to be performed by the cessation of war, by which either the earth was to become more fertile, or the physical necessity for food become lessened.

* Partly from the clamors of the populace, partly

from the state of the foreign exchanges, and, perhaps, partly because the measure originated with their political opponents, the alterations in the corn laws, which it was afterwards found necessary to make, were protracted by ministers till the greatest mischief was effected; and then, when too late to be of any service, they were enacted amidst as much popular confusion as could have happened had it been done at the proper period.

Notwithstanding the surplus quantity of corn produced by the harvest of 1813, the markets would not have been so ruinously depressed if the law had protected the grower early against the foreign competitors. A sufficient number would have retained their stock, or at least a part of it, till a more distant period; but, seeing no check on the foreign corn, and dreading a larger quantity than even could be imported, each rushed to the market, the produce rapidly fell, till at last it seemed permanently settled at a price from thirty to fifty per cent. below its actual cost. Those farmers who were obliged to sell, and who are the far greater proportion of the body, when they wanted money to pay their rent, taxes, and laborers, were under the necessity of selling a double quantity, to realise the usual sum; and thus a glut was produced, which has been attended with the most serious consequences. The harvest of 1814 was by no means abundant in quantity, and the quality of the wheat was so bad in general, and yielded so little flour, that it may be fairly estimated below the average rate of our production. The surplus of the preceding great harvest, and the quantity imported, which was increased by the expectation that the corn bill would raise the price, were sufficient for the consumption of the year, but left a very small stock on hand to meet the future wants of the country. The harvest which followed, in 1815, was a month earlier than our harvests usually are; and from the surplus of the great harvest, from the imported quantity, and from the harvest of 1814, instead of twelve not more than eleven months' provision had been consumed, when the next harvest commenced.

The very low price at which wheat was sold, now increased the consumption very considerably; and the inferior qualities of it, which would produce but little at the market, were used for fattening cattle, and for other purposes to which wheat was never applied before. Thus a degree of profusion in the use of it has rendered the surplus quantity of little avail towards supplying any future scarcity that may occur.

The harvest of 1815, which has been before stated to have taken place a month earlier than usual, found us with a small quantity of foreign wheat of an indifferent quality in the granaries at the sea ports, and but a small stock in the hands of the grower, probably not more than sufficient for our consumption to the usual period at which our corn is harvested. The productiveness of the harvest of 1815 most certainly was below the average of our consumption, at least if the whole may be judged of from the southern parts of the island; but still the markets became lower, not from abundance, but from the impoverished condition of the cultivators. At an unusually

early period a great quantity of new corn was produced in the markets; the pressing demands for money could only be met by sacrificing at less than half the cost the greater part of the year's production and even that became insufficient to satisfy only the most pressing wants; the inferior wheats could not be sold at any rate; the prices were so low that only wheat of the best quality would suit the palates even of the poor; and accordingly at this early period there is felt a scarcity of the finest kinds of wheat. The same profusion of the inferior descriptions has continued; and the probability is that, before the harvest arrives, a sensible deficiency will be discovered. Thus from the alarm produced by an expectation of enormous importation of foreign corn, added to a surplus at home, our own prices have been reduced so low as to bring ruin on many cultivators, and a loss of capital to all, which, whatever may be the future demand, must prevent them from bestowing on the land that labor which can alone enable it to produce nearly sufficient for our subsistence.

If the corn-bill (of 1815) passed in the last session of parliament, had been enacted when it was first proposed, it is probable that the price would have been kept at nearly its cost, notwithstanding the surplus quantity. The general profusion in the use of corn would not have taken place; some of the surplus would have been stored to meet future periods of scarcity; and the land whose culture is now slighted, and neglected, would have been kept up to that full power of production, which is now from the loss of capital gradually diminishing.

2. *On the present and future effects of the depression of agriculture.*—It is not unusual to hear those who have paid but slight attention to the nature of agriculture express their surprise that a year or two of actual loss, should be productive of so much distress as is complained of at present; especially when following years in which the cultivators have gained large profits. They ask, cannot those who during several years have gained on the amount of their capital a larger share of profit than other members of the community endure the discontinuance of that profit, or even some loss, without suffering more than has been inflicted on their neighbours?

It may not be amiss in the first place to remark that, in those years in which the produce of the land has borne the highest prices, they have seldom been very much raised till a large part of the growth of the more numerous portion, the poorer farmers, had passed from their hands into those of the corn merchant, the factor, or the meal-man; and, therefore, those who most needed have been the least benefited by such high prices. The fact is that the smaller class of farmers are under the necessity of selling their produce early; long before the deficiency is apparent; and therefore never can have the full benefit which the richer part of the profession, the smaller number, may sometimes gain. Very high prices of produce, such as were obtained three or four years ago, have been occasioned by crops deficient either in quantity or quality; and then such advanced prices amounted to but little more on the whole growth

of the year, than a good crop would have produced at lower prices.

Whatever gains have been made in prosperous years by the great mass of cultivators, however much they may have increased their substance during those years, it has not usually been diverted into other channels than that in which it has been acquired. It has generally been expended either in improving the soil already under cultivation, or in preparing land, before in a neglected state, to bear the most valuable crops. Thus this increase of property, added to what they had before invested in agriculture, has only increased their loss. It is almost needless to state that all land recently brought into cultivation, instead of repaying any part of the capital expended upon it, or even any interest, has not paid the annual expenses of seed, labor, and taxes; and the loss has been equal to the capital expended, and the annual rent. It will thus appear that a series of years of moderate prosperity and accumulation, if that accumulation has been re-invested in the soil, is not a compensation equivalent to the disastrous events which the two last years have produced; in which probably the whole rental of the corn land in this kingdom has been paid (as far as rents have been paid), not out of the profits, but out of the capital of the cultivators.

The first of the evils, a long train of which must follow, has fallen on the laboring poor, whose wages, indeed, have not been lessened to the full extent of the reduced prices of the produce of the land, and who, could they obtain employment, would have no great reason to complain; but their sufferings arise from the scarcity of labor. The farmer has no means, and no inducement to employ laborers, the cost of whose labor is greater than he can hope to be paid for; and should corn now become higher in price, the greater part of his growth being sold, he would still be unable to pay those whom, excited by hopes of further improvement, he might wish to employ.

At no period in the memory of man has there been so great a portion of industrious agricultural laborers absolutely destitute as at the present moment. They cannot procure employment, and parochial relief is doled out with a scanty hand, by those who want even the pittance that is bestowed to pay the few workmen they are obliged to employ. This evil is not likely to be lessened, but, on the contrary, must increase as the capital of the farmers approaches nearer to annihilation. To them it will be of no consequence that labor is cheap, and corn scarce. The capital, which by setting in motion the labor would increase the quantity of corn grown, is departed, and a long period must elapse before it can be again collected. The mechanics and tradesmen, whose principal dependence was on the agriculturists, and who form a very large proportion of the kingdom, are in a situation not much better than the laboring poor. Their best customers can scarcely employ them; and for the little trade they have, instead of being paid with punctuality as heretofore, they are glad to receive a very small proportion, and defer the remainder to a future period. This

evil extends to all the other classes not immediately dependent on the agriculturists; and it would be difficult to point out a single branch of industry that is not suffering under the influence of the general depression.

The higher classes of the community, the landed proprietors, whose wealth and rank are as beneficial to the poor as to themselves, must suffer in their revenues and their comforts, as well as in their feelings. They have been warranted in living very, nearly up to their annual incomes; and, in general, cannot be capable of very great retrenchments, without denying themselves many luxuries, and even comforts, in the furnishing of which numerous members of the community have found the means of subsistence. It is notorious that rents cannot be paid, except in a few partial instances; that, as the capital of the tenants is diminished, their means of paying must become lessened; and, for many extensive portions of land, no tenants will be found who have the means of cultivating them. Thus that important class, the pillars and the ornaments of our country, are already in some degree, and must more extensively hereafter become sharers in the general calamity.

This slight sketch of the evils which have already resulted from the depression of agriculture, and whose extent must be yet increasing, is by no means overcharged. The subject is too painful, or it might be much enlarged. Alarming, however, as this representation is, it is by no means equal to those which the future presents. The distress of the agriculturists has been stated to have already diminished the labor applied to the land. The withdrawing of the labor will diminish the produce; and if the opinions before stated, of the proportion between our supply of food and our consumption, be nearly correct, a very small diminution in our produce, which is already begun, and will surely continue, must reduce the community to a state approaching to famine.

It may appear ridiculous, to those who suppose we are overloaded with food, to talk of approaching famine: they may think that, having already too much corn, we shall never again feel a deficiency of that necessary article: but let it be considered that, during twenty years, we have regularly, with one exception, felt a deficiency; that in the whole of that period, if not rapidly, our agriculture was regularly increasing, whereas now it is at least as rapidly on the decline; that many producing farms are now absolutely and totally without cultivation; that the number of such farms is daily increasing; that the land which has hitherto enjoyed its full portion of labor is deprived of the greater part; and that the population has increased, and will continue to do so till it is checked by a scarcity of food. If these facts are correct, and it is scarcely possible that they should be controverted, the time cannot be very distant when our cultivation will be so much diminished, that after a harvest but a little below the ordinary rate of productiveness, our deficiency in corn must be too great for any surplus in foreign countries to supply our wants, however high the price we may offer for it.

If it be true that at the commencement of the last harvest there was not a surplus of wheat sufficient to supply us for more than a month; that the produce of the last year was below the average of twelve months' consumption; that, unless the next harvest happens as early as the last, thirteen months' consumption will be requisite; that from the distress of the farmers the markets early became overloaded, and were depressed to a price that created profusion in the use of wheat; that the cultivation of potatoes, that useful substitute for wheat, has, from the losses sustained, nearly ceased, except in the vicinity of large towns or populous districts; and if we consider that the price of wheat is in most parts of Europe so high as to indicate a scarcity rather than a surplus, we may conclude that a considerable degree of want will prevail before any new wheat is produced. If such scarcity should happen, and a probability appear of such a price being maintained as will repay the expense of cultivation, those who have not quite exhausted their powers may continue the growth of corn to a moderate extent; but, should it happen that the present depression continues, the prospect will be gloomy indeed; the great number of cultivators who will have been driven from the occupation, the increased quantity of land without culture, and the slovenly manner in which what is cultivated will be managed, must produce scarcity, famine, and depopulation.

These observations may be thought a little antiquated, but we conceive most of the reasoning applicable to the present state of agricultural affairs: and cannot better conclude than by the following brief statement of the drawbacks and improvements in agriculture, suggested by another able writer, Mr. Cleghorn, in the article we have already been much indebted to, *Agriculture*, Supplement to the Encyclopædia Britannica. 'To the class of drawbacks upon agriculture,' says this writer, 'and impediments to its improvement, belong tithes,—poor-rates,—payments in the shape of fines, and services exacted by the lords of manors—entails—tenancy at will, or on very short leases—unfair restrictions on the tenant as to the disposal of his lease, and as to the management of the lands during its currency—the game laws—and the complicated regulations under which commons and common fields are

cultivated, and the great expense required to place them in a state of severalty. It appears that nearly three-fourths of the land of England and Wales are exposed to claims which wrest from the husbandman one-tenth of the gross produce of his labor and capital, and this whether the remainder of the produce be or be not sufficient for his remuneration. Though no rent were paid for poor soils, this burden alone would effectually prohibit their correct cultivation; and, even in the case of rich soils, tithes diminish the rent so considerably, as to make it the interest of landholders, in many parts of England, to restrain their tenants from converting grass lands into tillage; that is, from placing them under the most productive management for the community, both in regard to the supply of food and of employment.

'To the enlightened enquirer it must appear abundantly clear that all plans for the extension and improvement of British agriculture must prove ineffectual, so long as these capital obstacles are left untouched; and that their removal is all that need be done, and all that ought to be done by a wise government, for securing an abundant supply of the first necessaries of life. Let all land be held and occupied in severalty—let it be exempted from all indefinite exact ons, particularly such as diminish, or altogether absorb the just returns of capital and industry—let the connexion between the land proprietor and the farmer be every where formed upon equitable principles to the exclusion of all remnants of feudal ideas, all notions of favor and dependence, and all obligations that do not appear within the four corners of the lease itself, or are not imposed by the general principles of law—let the rights of a tenant be so far enlarged as that he may be enabled at pleasure to withdraw his capital by a transference of his lease, and to regulate the succession to it after his death—then there can be little doubt that a large part of the disposable capital of the nation, now embarked in much less profitable pursuits, would, of its own accord, turn towards the improvement of our lands; and thus furnish employment and subsistence for our population, secure from the caprice of fashion, and the rivalry and jealousy of other countries.'

RUSCUS, knee-holm, knee-holly, or butcher's broom, a genus of the syngenesia, and diœcia class of plants; natural order eleventh, sarmen-taceæ: MALE CAL. hexaphyllous: COR. none, nectarium central, ovate, and perforated at the top: FEMALE CAL. COR. and nectarium are the same as in the male; there is one style, with a trilocular two seeded berry. The most remarkable species is the

R. aculeatus, or common butcher's broom, common in the woods in many parts of England. It has roots composed of many thick fibres which twine about each other; from which arise several stiff green stalks about three feet high, sending out from their sides several short branches, garnished with stiff, oval, heart-shaped leaves, placed alternately on every part

of the stalk, ending with sharp prickly points. The flowers are produced in the middle, on the upper side of the leaves; they are small, and cut into six parts; of a purple color, sitting close to the midrib. They appear in June; and the female flowers are succeeded by berries as large as cherries, of a sweetish taste, which ripen in winter; when they are of a beautiful red color. As this plant grows wild in most parts of England, it is rarely admitted into gardens; but, if some of the roots are planted under tall trees in large plantations, they will spread into large clumps; and, as they retain their leaves in winter, at that season they will have a good effect. The seeds of this plant generally lie a year in the ground before they vegetate; and the plants so raised are long before

they arrive at a size big enough to make any figure, and therefore it is much better to transplant the roots. The root is accounted aperient, and in this intention is sometimes made an ingredient in apozems and diet drinks, for opening slight obstructions of the viscera and promoting the fluid secretions. This plant is used by the butchers for besoms to sweep their blocks.

RUSE, *n. s.* Fr. *ruse*. Cunning; artifice; little stratagem; trick. A French word, says Johnson, neither elegant nor necessary.

I might here add much concerning the wiles and ruses, which these timid creatures use to save themselves.

RUSH, *n. s.* } Sax. *purc*; Teut. *rusch*;
RUSH-CANDLE, } Goth. *raus*. A plant: the
RUSHY, *adj.* } compound and adjective
follow the noun-substantive in sense.

He taught me how to know a man in love; in which cage of *rushes* I am sure you are not prisoner.

Man but a *rush* against Othello's breast,
And he retires. *Id.* Othello.

Be it moon or sun or what you please;
And if you please to call it a *rush-candle*,
Henceforth it shall be so for me. *Shakspeare.*

If your influence be quite dammed up
With black usurping mists, some gentle taper,
Though a *rush-candle* from the wicker hole
Of some clay habitation, visit us. *Milton.*

Your farm requites your pains;
Though *rushes* overspread the neighbouring plains.
Dryden.

Not a *rush* matter, whether apes go on four legs or two.

In *rushy* grounds, springs are found at the first spout.

John Bull's friendship is not worth a *rush*.
Arbutnot.
What knight like him could toss the *rushy* lance?
Tickel.

The timid hare to some lone seat
Retired; the *rushy* fen or rugged furze. *Thomson.*
A *rush* hath a flower composed of many leaves, which are placed orbicularly, and expand in form of a rose: they are planted with great care on the banks of the sea in Holland, in order to prevent the water from washing away the earth; for the roots of these *rushes* fasten themselves very deep in the ground, and mat themselves near the surface, so as to hold the earth closely together. *Miller.*

RUSH, *v. n. & n. s.* Sax. *preopan*. To move with violence; go on with tumultuous rapidity; violent course or motion.

Their dam upstart out of her den afraide,
And *rushed* forth, hurling her hideous tale.
Spenser. Faerie Queene.
Gorgias removed out of the camp by night, to the end he might *rush* upon the camp of the Jews.
1 Mac. iv. 2.

A gentleman of his train spurred up his horse, and with a violent *rush* severed him from the duke.
Wolton.

Him while fresh and fragrant time
Cherish in his golden prime,
The *rush* of death's unruly wave
Swept him off into the grave. *Crashaw.*
Armies *rush* to battle in his clouds. *Milton.*
Desperate should he *rush*, and lose his life,
With odds oppressed. *Dryden's Æneis.*

They will always strive to be good christians, but never think it to be a part of religion to *rush* into the office of princes or ministers. *Sprat.*

You say, the sea

Does with its waves fall backward to the west,
And, thence repelled, advances to the east;
While this revolting motion does endure,
The deep must reel, and *rush* from shoar to shoar.
Blackmore.

With a *rushing* sound the assembly bend
Diverse their steps. *Pope's Odyssey.*

RUSH, in botany. See JUNCUS.

RUSH, SWEET. See ACORUS.

RUSHWORTH (John), was born in Northumberland about 1607. After attending the university of Oxford, he removed to Lincoln's Inn; and attended the meetings of parliament, where he wrote down the speeches of the king and members. During eleven years, from 1630 to 1640, when no parliament was held, he was an attentive observer of the great transactions of state in the star-chamber, the court of honor, and exchequer chamber. He also visited the camp at Berwick, was present at the battle of Newborn, at the treaty of Rippon, and at the great council of York. In 1640 he was appointed assistant to Henry Elynghe, clerk to the house of commons; and the commons trusted him to convey their overtures to the king, while he was at York. When the parliament created Fairfax their general, Rushworth was appointed his secretary; and, when Fairfax resigned his commission, Rushworth returned to Lincoln's Inn, and was soon after chosen one of the committee to consider the propriety and means of new-modelling the common law. He was elected a representative for Berwick-upon-Tweed to the parliament which Richard Cromwell assembled in 1658, and was reelected to that which restored Charles II. to the crown. After the restoration he delivered to the king several books of the privy council, which he had preserved during the commotions. Sir Orlando Bridgeman keeper of the great seal chose him his secretary in 1677, which office he held as long as Sir Orlando kept the seals. In 1678 he was a third time chosen member for Berwick, and a fourth time in the parliament in 1679. He was imprisoned in the King's Bench for the last six years of his life. He died 12th of May, 1690. His Historical Collection of Private Passages in State, weighty Matters in Law, and Remarkable Proceedings in Parliament, was published in folio. The first part appeared in 1659; the second in 1680; the third in 1692; the fourth and last was published in 1701; and altogether made 7 vols. These underwent a second edition in 1721; and the trial of the earl of Strafford was added, which made the eighth. This work has of course been much applauded by those who condemn the conduct of Charles I., and accused of partiality by their opponents.

RUSK, *n. s.* Arm. *ruzg*. Hard bread for stores.

The lady sent me divers presents of fruits, sugar, and *rusk*. *Raleigh.*

RUSMA, in natural history, is the modern name of the eastern nations for the substance called by the ancient Greeks sory, and used as a depilatory. The Turks in particular call this substance rusma. It is not, as some have imagined, a mineral substance found ready for use, in the

bowels of the earth; but requires a preparation and alloy. Bellon, who first described at Cuta, in Galatia, 'the source of a mineral which they call rusma,' adds that this mineral alone cannot be used 'till it has been beaten into a very fine powder, putting half as much quicklime as rusma, which is then diluted in a vessel with water.' Thus the rusma of Bellon is not of itself a depilatory; but it contains some caustic matter, which being mixed with lime gives it that property. This presumption is confirmed by Velmont de Bomare, who, having received from Constantinople some small pieces of mineral rusma, perceived that, on throwing it upon hot coals, there immediately exhaled from it a vapor, which gives reason for suspecting that it is a 'colchitis' mineralised by sulphur and arsenic. This mixture is the true rusma of the Turks, and the nouret of the Arabs. Boyle tells us he made a fine powder of equal parts of rusma and quicklime, and, letting them soak a little time in water, they became a soft paste, which he spread on the part he would free from hair; and, after letting this paste lie on about three minutes, he wiped it off with a wet cloth, and found the hair taken away by the roots without any inconvenience.

RUSSEL (Alexander), M. D., was born and educated at Edinburgh. He became physician to the English Factory at Aleppo. In 1775 he published a History of Aleppo, which was much esteemed, and has since been reprinted, and translated into different languages. He returned to England in 1759, and became physician to St. Thomas's hospital. He died in 1770.

RUSSEL (Lord William), an illustrious British patriot, the third son of William, first duke of Bedford, was born in 1641. In 1667 he married Rachael, second daughter of Thomas Wriothley, earl of Southampton, and widow of lord Vaughan, a lady of distinguished talents and piety. Having obtained a seat in the house of commons, he took part with the whigs, and opposed the succession of James duke of York, with great zeal. He afterwards entered into various schemes for excluding that prince, for which he was indicted and tried at the Old Bailey, by a venal court, and a packed jury who found him guilty; and he was beheaded at Lincoln's Inn Fields, July 31st, 1683. In 1689 the house of lords passed an act, reversing his attainder. His lady survived him several years, and a volume of her correspondence with some of the most eminent personages of that age has been published. See GREAT BRITAIN.

RUSSELLIA, in botany, a genus of the digynia order, and pentandria class of plants: CAL. five-leaved: COR. two-lipped; petals five above: CAPS. one celled and many seeded. Species one only, a climber of Havannah.

RUSSELL (Thomas Macnamara), esq., admiral of the white, was descended, on both sides, from most respectable families. His father (an Englishman) went over to Ireland, where he married a lady of that country, and settled. Mr. Russell was born, we believe, about the year 1743, and his Christian name Macnamara was derived from his paternal grandmother. At the early age of five years, he had the misfortune of

losing his father; and, through either the fraud or mismanagement of his guardians, all the fortune which had been left him was dissipated by the time that he reached fourteen. Our officer entered the service at an early period; and, after serving fourteen years as midshipman, was promoted to the rank of lieutenant. During the war with the colonies he served on board the Albany, Diligent, and Raleigh, principally on the coast of America, and distinguished himself on several occasions. The pilot having once run the Albany upon a rock, at some distance from the land, to the westward of the bay of Fundy, lieutenant Russell requested and obtained from his commander the Albany's boats, armed with volunteers, to cruise for vessels to lighten and get her off; or, should that be impracticable, to save her stores, and to cover their own retreat to Halifax. In the course of seven or eight hours he returned, with no fewer than four fine sloops and schooners, some laden and some in ballast, which he had cut out from under a very heavy fire from the shore.

From the Albany Mr. Russell was removed to the command of the Diligent brig, of eight three-pounders. In this ship, whilst cruising off the Chesapeake, he engaged and took the Lady Washington, letter of marque, of sixteen six-pounders, richly laden, from France. Mr. Russell now became first lieutenant of the Raleigh, commanded by captain (afterwards admiral) Gambier. In this ship he was engaged in repelling the French attempt upon Jersey (under the command of captain Ford and Sir James Wallace) in 1779.

After this service lord Shuldhham, then port admiral at Plymouth, honored lieutenant Russell with the command of Drake's Island, with 200 or 300 seamen and marines. His lordship flatteringly termed this the Post of Honor; it being, as he observed, the advanced post of Great Britain, whilst the combined fleets kept the channel. Lieutenant Russell next served in the Raleigh, at the siege of Charlestown; on the reduction of which (May the 11th, 1780) vice-admiral Arbuthnot, the naval commander-in-chief, promoted him to the rank of master and commander in the Beaumont sloop.

From the Beaumont sloop, captain Russell was made post in the Bedford, of seventy-four guns, then bearing the broad pendant of commodore Affleck. He soon after removed into the Hussar, of twenty guns; in which ship he cruised successfully against the enemy, by taking and destroying a large frigate near Boston, laden with masts and naval stores, for the French fleet; a large brig privateer, of eighteen guns; a letter of marque, of nearly the same force; and several smaller prizes, beside the Sybille frigate, the capture of which demands more particular notice.—The Hussar had only twenty guns, and 116 men, thirteen of whom were on the sick list; but La Sybille had thirty-eight guns, and 350 men; circumstances which rendered the odds far greater in favor of the Frenchman.

Captain Russell's official letter says, 'On my approach, she displayed an English ensign reversed in her main shrouds, and English colors over French at the ensign-staff. Having like-

wise discovered that she was under very good jury-masts, had some shot-holes in her quarter, and not supposing that French tactics contained a ruse de guerre of so black a tint, I took her to be what her colors intimated—a distressed prize to some of his majesty's ships; every hostile idea vanished; my mind was employed in devising means to succor and protect her; I declined the privilege of my supposed rank, and stood under his lee to hail. At that moment, by a pre-concerted and rapid movement, he put up his helm, aimed at laying me athwart hawse, carrying away my bowsprit, raking, and then boarding me. I felt the error of my credulity; ordered our helm hard-a-weather, shivered, and shortened the after-sails: The Hussar obeyed it—saved me from the murdering reflection of a surprise—baffled in part the enemies' attention, and received only a half-raking fire; which, however, tore me to pieces forward, and killed two of my men. By this time both ships were by the lee forward, and almost aboard each other. I called aloud, to stand by to board him. It had the desired effect; he put up his helm—wore off—the Hussar closed with him—and a fair engagement commenced before the wind. After about two hours' chase, the Hussar got up abreast of the enemy, gave him one broadside, which he returned with two guns, and struck his colors; the Centurion, then about long random shot astern, and the Terrier sloop about four or five miles to leeward, under a pressure of sail. The French officers, when prisoners, confessed that it was their intention to put the crew of the Hussar to the sword for daring to chase them in so contemptible a ship.

From the circumstance of peace taking place just at that period, the above letter was never published. Perhaps, also, from motives of conciliation on the part of Great Britain, it was thought politic not to give it to the world, as it certainly bore extremely hard upon the French commander. But, as it was intended that this letter should appear at the court of France against count Kregarou, it became necessary to have it legally authenticated, which was accordingly done.

When the captain of la Sybille delivered his sword to captain Russell on the Hussar's quarter-deck, he commenced a speech, with much pomposity of style and manner, saying, 'Accept, Sir, of a sword, which was never before surrendered. Conceive my feeling, on being reduced to it by a ship of less than half my force—such a ship! such a constant and continued tremendous fire!'—Captain Russell answered, 'Sir, I must humbly beg leave to decline any compliments to this ship, her officers, or company, as I cannot return them. She is indeed no more than a British ship of her class should be. She had not fair play: but Almighty God has saved her from a most foul snare of a most perfidious enemy.' 'I receive your sword with the most inexpressible contempt; and, sir, you will please to observe, that lest it should ever defile the hand of any honest French or English officer, I here, in the most formal and public manner, break it.' At this moment a strong box, containing about £500, was brought on board the

Hussar, and another filled with plate, &c. The French officers in a body declared that the money was their private property, and that the plate belonged to their captain. 'Gentlemen,' said captain Russell, 'it shall continue yours; whatever your captain may think, British officers do not fight for money.' Attempts were made to bribe captain Russell to release the count; the English commander, of course, revolted at the offer, and severely reprov'd the bearer.

On his return to England, captain Russell, for his various services, was offered the honor of knighthood; an honor which he modestly declined, as not possessing a sufficient fortune. Some of his friends thought that this refusal might disoblige lord Keppel; but that it did not was evident from his lordship's continued friendship towards him whilst he lived.

During the peace, in the course of the year 1791, captain Russell was appointed to command the Diana, on the Jamaica station; where, for his conduct during the apprehension of a rising among the negroes, he was twice honored with the public thanks of the inhabitants. It was during this time that he was sent by admiral Affleck, to convoy a cargo of provisions, as an act of charity, from the government and principal inhabitants of Jamaica, to the white people of St. Domingo, who were then severely suffering from the depredations of the people of color. He was received with joy and gratitude; and was invited to a public dinner given by the colonial assembly at Aux Cayes. At this repast our officer represented to the assembly that there was a lieutenant Pérkins, of the British navy, cruelly confined in a dungeon at Jeremie, on the other side of the island, under the pretext of having supplied the blacks with arms; but, in fact, through malice for his activity against the trade of that part of St. Domingo in the American war. Captain Russell stated that, before he had ventured to plead his cause, he had satisfied himself of his absolute innocence; that he had undergone nothing like a legal process, a thing impossible from the suspension of their ordinary courts of justice, owing to the divided and distracted state of the colony; and yet, horrible to relate, he lay under sentence of death! 'Grant me,' said captain Russell, 'his life! Do not suffer these people to be guilty of the murder of an innocent man, by which they would drag British vengeance upon the whole island.' So forcible was this appeal that the assembly, in the most hearty and unequivocal manner, promised that an order should be instantly transmitted for him to be delivered up. On the following day, however, on captain Russell sending an officer to receive the order for lieutenant Perkins's liberation, he returned with a refusal from the assembly; for, 'as it was a promise made after dinner, they did not think it binding.'

Almost at the moment of the officer's return, the Ferret sloop, captain Nowell (afterwards admiral Nowell), hove in sight. She had been at Jeremie, with despatches containing the requests of lord Effingham and admiral Affleck, that lieutenant Perkins might be delivered up, which the council of commons there absolutely refused. No sooner was captain Russell apprised of this state of the

business, than he declared that he would sacrifice as many Frenchmen as there were hairs on Perkins's head, if they murdered him. His determination was soon known amongst the Diana's crew; the anchor was up, sail crowded, and the wind favoring them in an uncommon manner, the frigate and sloop quickly appeared off Jeremie. Both of the vessels hove to close to the harbor, and prepared for battle; every soul on board of them panting for vengeance, should Perkins be murdered. Captain Nowell, on landing, was surrounded by a mob of at least 300 villains, armed with sabres; and, together with lieutenant Godby, who accompanied him, had occasion to keep his hand on his sword during the whole of the conference which took place. The president read the letter, and said, 'Sir, suppose I do not?' 'In that case,' replied the British officer, 'you draw down a destruction which you are little aware of. I know captain Russell; beware, if you value your town, and the lives of thousands; he has given me sixty minutes to decide; you see, sir, that thirty of them are elapsed.' The mob now grew outrageous. 'You shall have him,' exclaimed one of them, 'but it shall be in quarters!' Captain Nowell instantly drew his sword, and, looking at the president, said, 'Sir, order that fellow out of my sight, or he dies!' The president did so; and, after a few more threats from captain Nowell, that he would return without him, poor Perkins was led from the brig of war lying off the town in which he had been kept a close prisoner, into the Ferret's boat.

Having remained the usual time on the Jamaica station, the Diana returned to England, and was paid off; after which captain Russell was appointed to command the St. Albans of sixty-four guns, and brought home four or five East Indiamen from St. Helena. On the 11th of January, 1796, he was appointed to the Vengeance, of seventy-four guns; in which he served in the West Indies, under rear-admiral Harvey, at the captures of St. Lucia and Trinidad, and at the subsequent unsuccessful siege of Porto Rico; and on this station captain Russell had the satisfaction of making, the second time in his life, an ample fortune; but, by an unlimited confidence in the integrity of others, his golden treasures soon vanished.

In the spring of 1799 he returned to England, and joined the Channel fleet, then under the orders of earl St. Vincent. Having remained for some time in that service, the Vengeance, being much out of repair, was paid off; and, on the 23d of April, 1800, captain Russell was appointed to the Princess Royal, a second rate, in which ship he remained until advanced to the rank of rear admiral of the white, Jan. 1st., 1801; and on

the 23d of April, 1804, rear-admiral of the red. Soon after the commencement of the late war, we find our officer serving under lord Keith. About the year 1807 he was appointed to the chief command of the North Sea fleet; but, from the rigid caution which the Dutch squadrons observed, no opportunity occurred for him to display the determined spirit which he was well known to possess. His promotion to the rank of vice-admiral took place Nov. 9th, 1805; and on the 12th of August, 1812, he became a full admiral. Mrs. Russell, to whom he was united about the year 1793, died March 9th, 1818, leaving an only child, a daughter, married in 1817 to George Edward Patey, esq., lieutenant. R. N.

Admiral Russell's blockade of the Texel, during the period of the threatened invasion of our shores, has been considered admirable, and was planned and executed by himself. His system of anchoring during the strongest gales, with sometimes three cables on end, was rewarded by the most complete success. During the neap tides, the line-of-battle ships for the most part rendezvoused at North Yarmouth, by which a saving to his country in wear and tear, and probable loss of ships, was effected to an immense amount. Indeed, while this blockade of the Texel was the most efficient ever known, and was conducted with all the rigidity of a state of bitter warfare, it was marked by instances of refined humanity which procured the respect and esteem of the Dutch admiral Kitchurch, his officers, and men.

RUSSET, *adj.* & *n. s.* Fr. *rousset*; Lat. *russus*. Reddish brown: such is the color of apples called russetings, and of coarse country dresses.

The morn, in *russet* mantle clad,
Walks o'er the dew of yon high eastern hill.

Shakspeare.

Taffata phrases, silken terms precise,
Figures pedantical: these summer flies
Have blown me full of maggot ostentation:
Henceforth my wooing mind shall be exprest
In *russet* yeas, and honest kersey noes.

Id.

Our summer such a *russet* livery wears,
As in a garment often dyed appears.

Dryden.

The Dorick dialect has a sweetness in its clownishness, like a fair shepherdess in her country *russet*.

Id.

This white spot was immediately encompassed with a dark gray or *russet*, and that dark gray with the colors of the first iris.

Newton's Opticks.

The *russet* pearmain is a very pleasant fruit, continuing long on the tree, and in the conservatory partakes both of the *russeting* and pearmain in colour and taste; the one side being generally *russet*, and the other streaked like a pearmain.

Mortimer.



RUSSIA

British Miles.
25 50 100 150 200

5 10 15 20 25 30 35 40 45 50 55 60 65 70

65 60 55 50 45 40 35 30 25 20 15 10 5

NOVA ZEMBLA

Kara Sea

White Sea

GULF OF BOTHNIA

ARCTIC SEA

Stockholm

Helsinki

Petersburg

Moscow

Arctic Strait

Arctic Sea

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

Stockholm

Helsinki

Petersburg

Moscow

Novaya Zembla

Kara Sea

White Sea

Baltic Sea

ARCTIC SEA

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

Stockholm

Helsinki

Petersburg

Moscow

Novaya Zembla

Kara Sea

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

ARCTIC SEA

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

Stockholm

Helsinki

Petersburg

Moscow

Novaya Zembla

Kara Sea

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

ARCTIC SEA

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean

Stockholm

Helsinki

Petersburg

Moscow

Novaya Zembla

Kara Sea

White Sea

Baltic Sea

Gulf of Finland

Gulf of Bothnia

North Atlantic Ocean



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R U S S I A.

RUSSIA (from Slav. *Rossi* or *Russi*, a small Slavonic tribe) comprehends a portion of Europe and Asia, exceeding in extent any empire that was ever before included under one form of government. It borders on the Baltic, the Euxine, and the Caspian, and is washed both by the Arctic and Great Pacific Oceans. Stretching from the eastern confines of Asia to the mountains of Olonetz, and from the mouths of the Don, the Volga, and the Kuban, to the Frozen Sea, Russia comprises, independently of islands and promontories, 165° of longitude and 32° of latitude; being 9684 miles in length and 2400 in breadth. It contains a surface of about 4,000,000 square miles, and a population of more than 42,000,000 inhabitants, or about ten persons to each square mile. The population of European Russia, exclusively of the kingdom of Poland, does not much exceed 40,000,000. The chief augmentations by which the empire has been enlarged (for since its provinces were united under one government they have never been contracted) are the following, as stated in the Russian Court Calendar for 1817:—

The conquest of Siberia took place in 1573. Yermak, the hetman of the Don Cossacks, rebelled against the authority of Russia, and was obliged to flee before the forces of the czar. In this extremity he ascended the Ural mountains, and discovered the vast plains of Siberia. Animated by the idea of founding a new empire, in these unknown regions, he pushed on from conquest to conquest, till he had subdued all the savage tribes from the Ob and the Ural to the Altaian mountains. But, being unable to preserve the conquests which his valor had achieved, he laid the fruit of his victories at the feet of the czar, who not only forgave his rebellion, but rewarded his talents, his courage, and his enterprise. 'Thus an empire more extensive than Mexico or Peru was added to the Russian territory, by a man inferior to the conquerors of the New World, only because his exploits have not been recorded.' Little Russia was added to the former possessions in 1644; and Livonia, Esthonia, Ingria, Carelia, Viborg, and several islands in the gulf of Finland, were ceded to Sweden, at the peace concluded between the two powers in 1721. White Russia was annexed in 1772; and the Crimea, the island of Taman, and a great part of the Kuban, comprising a vast territory, with about 1,500,000 inhabitants, were wrested from the Porte, by the treaty which the menacing attitude of Catharine II., and her celebrated minister Potemkin, induced that power to sign in 1784. The dukedoms of Lithuania and Courland augmented the accumulating mass in 1793; and the partition of Poland, about two years afterwards, added nearly 3440 square leagues, and about 2,000,000 inhabitants. Georgia was annexed in 1801; and Bailystock in 1807. The war between Russia and Sweden, in 1809, proved disastrous to the latter, and Russia acquired Finland by the peace that was concluded in September of that year.

By a treaty of peace in August 1811 between Russia and Turkey the former obtained the province of Bessarabia, and the eastern part of Moldavia; for by that treaty the Pruth, from its entrance into Moldavia, to its junction with the Danube, and this last river to the Black Sea, were fixed as the boundaries between the two empires. The grand duchy of Warsaw was also annexed to Russia in 1815, but now constitutes a great part of the present kingdom of Poland.

This empire has undergone much variation in its political divisions. In 1796 Catherine II. divided the whole into fifty governments; a division annulled by Paul in 1800, another, comprising forty-one governments, being substituted in its stead. When the late emperor ascended the throne, he re-established most of the governments which his father had abolished; and a Ukase for that purpose was published in September 1801, by which the forty-one existing governments were increased by five others that had previously been established, and four more were added, which made the number fifty. The acquisition of Finland has been made since that period. The following are its present chief divisions:—

GOVERNMENTS ON THE NORTH.

Governments.	Capitals.
Finland	Abo
Wyburg	Wyburg
Olonetz	Olonetz
Archangel	Archangel
Esthonia	Revel
St. Petersburg	St. Petersburg.
Novogorod	Novogorod-Veliki
Vologda	Vologda
Livonia	Riga
Pskove	Pskove
Twer	Twer
Jarosla	Jarosla
Kostroma	Kostroma.

GOVERNMENTS IN THE CENTRE.

Smolensko	Smolensko
Moscow	Moscow
Volodimir	Volodimir
Nizney Novogotod	Nizney Novogorod
Kaluga	Kaluga
Tula	Tula
Riazan	Riazan
Tambof	Tambof .
Orel	Orel
Kursk	Kursk
Woronetz	Woronetz
Tschenigo	Tschenigo
Ukraine	Karkof.

GOVERNMENTS ON THE SOUTH.

Kiev	Kiev
Catharinofslaf	Catharinofslaf
Cossacks	Tscherkaskoy
Taurina	Caffa
Caucasus (part in Asia).	

GOVERNMENTS ON THE EAST.

Governments.	Capitals.
Perm (part in Asia)	Perm
Vyatka	Vyatka
Orenburg (part in Asia)	Orenburg
Kazan	Kazan
Simbirsk	Simbirsk
Penza	Penza
Saratof	Saratof.

GOVERNMENTS ON THE WEST.

Witepsk	Witepsk
Moghilef	Moghilef
Courland	Mittau
Wilna	Wilna
Grodno	Grodno
Minsk	Minsk
Volhynia	Lucko
Podolia	Kaminieck
Cherson	Cherson.

I. EUROPEAN RUSSIA.—European Russia occupies the north-east portion of Europe; being bounded on the north by the Frozen Ocean; on the east by Asia; on the west by Sweden, the gulf of Bothnia, the Baltic, Prussia, Poland, and Austria; and on the south by Turkey and the Black Sea. It extends from about 44° to 72° of N lat.; and from 22° to 60° of E. long. from Greenwich. Its length in a right line on the western frontier is about 1940 miles; but from south-west to north-east it is nearly 2180 miles. Its greatest breadth is about 51° of lat., where it is nearly 1520 miles. Its superficial extent has been estimated at about 1,000,000 square miles.

The two distinguishing features of this part of Russia are vast plains, denominated steppes, and majestic rivers. Some of the former consist of an extremely fertile soil; others are saline wastes; while a middle kind produces a scanty supply of vegetation, and are occupied, in summer, by tribes that roam in quest of pasturage. The most noted of these steppes are, 1. The desert of Petshora, situated between the Dwina and Petshora, and extending from 63° of lat. to the shores of the White Sea. This plain is interspersed with forests and small lakes, and is almost destitute of inhabitants, except in the vicinity of Archangel and Mezen. 2. The steppe of the Dnieper, including the Crimean desert, and comprised between the Dnieper, the Don, and the sea of Azof. It consists chiefly of dry sand diversified with salt lakes. The appearance indicates its having once been a submarine bed, the waters of which, by bursting the Thracian Bosphorus, may have flowed into the Mediterranean. 3. The steppe of the Don and the Volga, which occupies a considerable part of the space between these rivers. The great and generally rich plain bounded by the Volga and the Ural is about 2° further north than the latter, and stretches towards the Caspian.

Other parts of the Russian territory, though generally flat, present more variety. The surface, generally speaking, is composed of two inclined planes; one sloping towards the south and south-east, and the other descending towards the opposite points. These declivities meet on

the east side of the empire, about 60° of lat. and thence follow a winding line towards the south-west, till their union reaches 50°, and quits Russia in the vicinity of Smolensko. From this waving ridge, the waters flow on the one side to the Euxine and Caspian; and, on the other, into the White Sea and the Baltic.

The mountains of Olonetz originate in the northern extremity of Lapland, and stretch through about 15° towards the south. The northern parts are constantly covered with snow; the more southern regions with forests, and contain various metals, particularly iron. The mountains of Valday, which are crossed by the road from St. Petersburg to Moscow, have been supposed, by some travellers, to be merely a continuation of the former chain. They are chiefly composed of clay and sand, with occasional blocks of granite, forests, and fertile valleys. This elevated region gives rise to the Volga, the Duna, the Dnieper, and the Oeka. A ridge of hills likewise extends through Moldavia and Bessarabia, along the southern coast of Taurida, and connects the Carpathian with the Caucasian chain. 'They form the southern extremity of the peninsula, and consist of calcareous matter, supported, as it were, by pillars of marble, trap, clay, common lime-stone, and schistus, in parallel and almost vertical veins, alternating with each other. This singular ridge has the appearance of an amphitheatre along the Euxine. The vales produce the laurel, the olive, the fig, the lotus, and the pomegranate; the cliffs are adorned with the red bark and perpetual foliage of the strawberry-tree; while the sheep and goats, clinging to the declivities, combine with the simple manners of the Tartars to form an enchanting picture.' The Uralian mountains, which separate Europe from Asia, for more than 1200 miles, have already been mentioned in our article EUROPE. This range declines abruptly on the western side. The highest part is in the province of Orenburg, and the most elevated near the western verge of the range. These, however, do not exceed 4500 feet in height.

The principal rivers descending towards the south are the Volga, the Don, and the Dnieper. Those that run in an opposite direction, the Petshora, the Dwina, the Neva, and the Duna, with their tributaries.

The level nature of the soil, and the number of large rivers, are extremely favorable to internal navigation of all kinds. Peter the Great completed the navigation from the Caspian to the Baltic, by opening the canal of Vishnei Voloshok, between the river Twerza, that falls into the Volga, and the Shlina, which terminates in the gulf of Finland. Various other plans of internal navigation have at different times been wholly or partially executed; and the repose of peace, aided by the information which the Russians have derived from their visits to the more improved nations of Europe, will doubtless be employed in promoting the national resources of these vast dominions. Among these improvements, the construction of canals is finding a place, though they are rendered less necessary in Russia than in most other countries, by the

continued intensity of the frost, which makes the conveyance of heavy articles on sledges a matter of ease constantly to be depended on. No sooner has the frost set in than sledge-ways, covered with these vehicles, are opened from the gulf of Archangel to the mouth of the Dón, and from the banks of the Irtish to those of the Neva. Some of the Russian lakes are the largest bodies of fresh water in Europe: as those of Ladoga, Peypus, Onega, and Ilmen. Russia also contains several others.

Russia is generally connected with the idea of cold; but this applies only to the northern districts; those of the opposite extreme, participate

in the temperature, and yield all the products of southern Europe. With respect to climate, European Russia may be divided into three distinct regions; the cold one from 60° northward; the temperate between 50° and 60°; and the warm from 50° to the southern extremity. In the first of these the severity of winter is great, and confines the labors of agriculture to a very limited period. Little vegetation appears before June; but then the accumulated heat of almost continual day renders its progress vigorous and rapid. The extremes of heat and cold at St. Petersburg during ten years were as follow:—

GREATEST HEAT.			GREATEST COLD.	
Year.	Day.	Degree of Fahrenheit.	Day.	Degree of Fahrenheit.
1782	12th July	85°	16th February	29° below 0.
1783	17th June	88	9th January	23 ditto
1784	29th July	92	30th January	8 ditto
1785	23d July	86	3d March	22 ditto
1786	27th June	87	2d January	24 ditto
1787	13th June	92	9th February	14 ditto
1788	18th July	95	{ 20th January }	15 ditto
			{ 23d December }	
1789	19th July	90	12th January	20 ditto
1790	31st July	78	3d and 10th February	8 ditto
1791	15th June	86	7th and 22d December	10 ditto

The climate here is as changeable as in our own country. Fahrenheit's thermometer has been known at St. Petersburg to be at 3° one day, and nearly 37° the next; making a difference of about 34° in a few hours. Storms of thunder and lightning seldom take place in Russia; but the aurora borealis is very frequent, and the atmosphere is often seen to discharge electric fluid. Near Moscow the rivers are generally frozen as early as the beginning of November; and the ice seldom breaks up till the middle of March. The buds of the birch expand in May, and its leaves fall in September. In the southern parts of this middle region, particularly in the government of Tula, Orel, Kursh, and Kiev, the climate resembles that of parts of France. It produces apples, pears, plums, melons, and arbutuses. But here, as well as in the former region, the year embraces only two seasons. Snow clogs the path of retreating summer, and a vivid sun at once dissolves the winter's frost. In the southern regions the luxuriance of warm latitudes greets the travellers' eye, and wine and silk, with abundance of choice fruits, are found. Spring begins with March, and continues to the end of May. Nature is then arrayed in her most brilliant colors, and every aspect under which she is viewed is refreshing and beautiful. In June, the influence of the sun becomes powerful, the plains lose their verdure, the springs are dried up, and the rivers cease to flow. Fahrenheit's thermometer, in the shade, often exceeds 100°. September is sometimes far advanced before the fiery glare of summer abates. In this season rain and dew seldom fall; but in the peninsular province of Taurida the heat, during the middle

of the day, is tempered by refreshing breezes from the sea, succeeded in the evening by others from the land. Here the climate is salubrious; though in some other districts of the south the swamps and saline steppes are unhealthy. As autumn advances the nights become cold, and this season is the most sickly in the year. In winter the tops of the mountains are covered with snow.

The varieties of the soil we have already glanced at. Barren deserts occur even in the southern regions, and wide-spread plains, impregnated with salt. The governments of Volodimir and Riazan are esteemed the most productive. There the soil consists of a rich vegetable mould, and yields all kinds of grain and esculent vegetables. On some of the steppes the grass grows to the height of a man.

The Russian forests are perhaps unequalled in the old world, and consist of oak, pines, cedars, firs, linden, and birch. The shores of the Volga, the Ocka, and the Don, are adorned with vast woods of oak, whence it is conveyed to the ports of the Baltic and the Euxine. The Valchonskoi forest, through which the road lies from Viesma to Moscow, extends on all sides to a great distance. The governments of Olonetz, Archangel, Perm, and other northern regions, are likewise covered with forests of unknown extent. Even the road from Petersburg to Moscow runs chiefly through a succession of woods. The fir, the pine, and the black pine, are the prevailing trees in the northern parts. On the Ural mountains the cedar grows in abundance, and is often cut down by the inhabitants for its cones, which yield excellent oil. The larch flourishes in the

north, and is employed in ship-building, and for its turpentine and charcoal. In addition the beech, the elm, the maple, and the poplar, grow in the southern regions. The birch is used in various ways. Its bark is employed in tanning; its leaves afford a yellow dye, its sap a liquor called birch wine, and its wood not only supplies fuel, but is converted into domestic vessels. The linden is likewise equally valuable. Its outer bark is manufactured into carriages, baskets, trunks, and covering for cottages; and the inner rind into mats. The rind of its shoots is platted into shoes for the boors. Its blossom supplies food for bees, and its wood is made into boats.

The Russian agriculture is generally in a very rude state. In the north both the soil and climate are unfavorable to its progress, and a few patches of feeble rye are almost the sole evidences of civilisation; and the thinly scattered inhabitants chiefly derive their subsistence from the fishery and chase. In Finland also the inhabitants grow little grain. See FINLAND.

The productions of this extensive empire, it has been long said, are as various as the soil and climate. Here the gifts of Providence are scattered with a profusion which, while it corresponds with the prodigality of the inhabitants, forms a singular contrast with their indolence, poverty, and unskilfulness in the arts of wealth and comfort. The Russians at once suffer from want, and allow abundance to corrupt; and though they might supply the world they depend on others. The following facts have been recently stated:—‘The harrow consists of short wooden pegs, driven into thin laths, woven together with willows. The use of the roller is hardly known. A crooked stick frequently serves as a flail. To drain moist lands or swamps is not at all the practice, though they are so numerous and prejudicial to man and beast, and might be converted into the finest corn fields. The steppe lands are employed a short time without manure and then forsaken. When a boor has fixed on a piece of forest land for the purpose of making it arable, together with the bushes and young wood, he cuts down and consigns to the flames, trees which have stood for two centuries, and are fit to be the ‘mast of some great admiral.’ If he cannot fell such large trees, stripping them of their bark, he leaves them to wither, and kindles the brushwood under them. In burning the dry weeds and grass for the purpose of manure the forests are sometimes set on fire, and consumed for miles. The boor has no conception of artificial manure, marl, chalk, or pond-mud. The land is seldom clean harrowed.’ Oats, rye, wheat, and barley, are sown in most parts; and raised in considerable quantities. Rice is grown in some of the southern districts; but hemp and flax are the principal objects of culture. In some of the Uralian mountains they grow wild. Hops and tobacco are cultivated in the southern provinces. Beyond 60° of latitude the vegetables resemble those of the northern parts of Norway and Sweden. Between 50° and 60° they differ little from those of Great Britain and Ireland. Almost all sorts of culinary vegetables are cultivated. This region is also plentifully stocked

with fruit trees and shrubs; and vast orchards of apple, pear, plum, and cherry trees appear. Cherries are produced in such abundance that both wine and vinegar are made of them. Nuts and walnuts are likewise plentiful. Various berries are annually gathered in vast quantities, and eaten either raw or preserved. They include gooseberries, currants, strawberries, cranberries, &c. &c.

Maize, rice, and cotton, are among the common products of the south. The fruits comprise chestnuts, almonds, pomegranates, olives, figs, peaches, apricots and mulberries, with grapes and other delicate fruits of southern climates. The vine is cultivated by the Cossacks of the Don, but in an imperfect manner. The water-melon often weighs 30 lbs., and is of an excellent flavor.

Cattle abound in all parts of Russia, and form a principal source of wealth. The breed is often large, and as well as that of the sheep has been much improved; but they are frequently left to seek their own food in the fields and forests. Buffaloes are numerous in the south. The long-tailed sheep, kept by the Cossacks of the Don, and other tribes in the south, yield wool of an excellent quality. The large sheep which range over the steppes of Taurida are covered with coarse wool mixed with hair; but the skins of their lambs furnish a fine colored and valuable fur in great request. The silky-fleeced Tauridan is also a valuable but small breed. Sheep indeed are so numerous in the southern provinces that a common Tartar often possesses a flock of 1000, and a rich one of 50,000. There are also great numbers of swine in Russia.

Notwithstanding the diversity of climate and treatment, the native Russian horses have a considerable resemblance to each other. All are of a compact form, with ram-like heads, and long and meagre necks, but they are hardy and active. In the governments of Moscow, Tambof, Kazan, and some others, the native breed has been improved by the introduction of foreign horses. The Tartar horses are of known excellence. Those of the Cossacks are small but indefatigable. The Russian cavalry is chiefly composed of Lithuanian horses. The Russian nobility pay great attention to the breed of this animal. The ass is little used; but, as well as the camel and dromedary, it is sometimes employed in the southern provinces for domestic purposes. The rein-deer is the principal domestic animal in the north. Goats are common in all the districts; and are kept both for their milk and hair. The peculiar species bred in Taurida sheds its fleece every spring; it is obtained by combing the animal at that season. In both silkiness and elasticity it exceeds the finest wool.

Among the wild animals are the bear, the wolf, the lynx, the fox, the deer, the elk, the antelope, and many other smaller species. Those which are most valued for their furs are inhabitants of Siberia; but hares and rabbits are common to all parts. The wild boar is found on the steppes of the Volga, and the borders of the Uralian forests; and is often hunted by the Cossacks. So much does this animal fatten on the roots and salt plants of the steppes, that he

often weighs more than six hundred weight. The flesh is esteemed a delicacy, and the animal is rarely killed without danger. The antelope ranges in large herds in the south.

Russia possesses nearly all the species of birds which are to be found in Europe. The number of wild fowl that flock to the desolate steppes, marshes, and forests, is almost incredible. Some idea, however, may be formed of their number by their value when caught; a bustard, weighing 20 lbs., is frequently sold for thirty or forty copecs, which is only equal to a few pence. Other game are equally plentiful.

The sturgeon is caught in the Volga, and some of the other rivers, in the highest perfection. The sterlet is also an excellent fish, common in the lakes and rivers; and a rich salmon is peculiar to the Kama, a stream that falls into the Volga. It is from three to four feet in length. To the general diffusion of the common species of European fish through the rivers of Russia, the eel forms an exception, none being found either in the Volga or in the rivers to the east of it. It is also remarkable that the herring and seal are here found in some of the lakes and even the rivers.

ASIATIC RUSSIA.—Asiatic Russia extends from about 37° of E. long., to the eastern extremity of Asia, (more than 5000 English miles), and from the Frozen Ocean to the great range of mountains which separates it from the central plateau. Its breadth exceeds 1500 miles; but it is much narrower towards the east. The whole surface is computed at 3,000,000 of square miles, with about one individual to each. The population is composed of a variety of primitive tribes, intermixed with a few Russian settlers, and a small accession in the east, which from its difference in manners, customs, and appearance, is supposed to be of American descent. The ancient Greeks and Romans extended their Scythian Ocean over the wide regions of Siberia; but Ptolemy, who was better informed, placed an unknown land in that direction: and Marco Polo, with other travellers of the middle ages, obtained some vague ideas of a country in this part of Asia, rich in furs. In the middle of the thirteenth century the Monguls had established a government on the Irtysh, in the western part of Siberia, but Russia was then too frequently exposed to the ravages of its eastern neighbours to carry either its arms or its investigations into those regions. Even when her internal divisions had enabled her, in some measure, to consolidate her empire, its southern and eastern frontiers were exposed to hostile attacks, and the northern provinces of Archangel afforded the means of first becoming acquainted with the countries bordering on that quarter. The Samoiedes of the Oby and the adjacent districts visited Russia to barter their furs with the natives. This excited their curiosity, and enterprises were undertaken to the countries whence the furs were brought.

Yermack, one of the principal chiefs of the Cossacks, with about 6000 followers, first entered Siberia in quest of new regions, and vanquished Kutchum, the khan of Siber, took his capital, and suddenly found himself at the head of an almost unlimited empire. Apprehensive, how-

ever, that continual efforts would be made to wrest the newly-acquired sceptre from his hands, he endeavoured to secure it by laying it at the feet of the czar. This was an offer too congenial with the Russian disposition to be refused; and, though the conquest was transient, it not only disclosed those eastern countries, but animated the hope of permanent success. The Russians soon after penetrated to the Yenisei, or Jenisei, and, having conquered the Tonguses, enjoined them to prosecute their discoveries to the east. These people fulfilled their commission, and soon penetrated to the Pisida, which is supposed to have been the Angara, on the opposite side of which they found a people, whom they described as 'of good understanding, well set, with small eyes, flat faced, brown color, and inclining to tawney.' But they could not understand their language. The Russians now soon arrived at the Lena, descending its stream to the Frozen Ocean; in 1639 one of their adventurers reached the eastern shore. Thus, in half a century, a few wandering Cossacks and Tungusian hunters, added an extent of country to the Russian empire that stretched one-third round the globe. After this they founded the towns of Irkutsk and Nertschinsk, and established a line of posts along the Amur. The map of the Caspian, constructed by Peter the Great, was an important accession to the progressive geography of that district, and was the first document which represented that sea as stretching from north to south, instead of from east to west, as had been previously supposed.

The mountainous region, at the south-west extremity of Asiatic Russia, has always been inhabited by rude tribes, under independent chiefs, secure in their own fastnesses. Here they have imbibed, and constantly cherished, the spirit of the feudal ages; and, though Russia has made great advances in the work of subjugation, she is yet unable to exact more than a precarious submission, and can only levy her imposts by force of arms, and a chain of military posts.

Asiatic Russia consists of two distinct parts, Siberia and Caucasus. The first is divided into the two great governments of Tobolsk on the west and Irkutsk on the east. The latter government includes the peninsula of Kamschatka. Besides these two governments, the province of Astracan, with parts of Caucasus, Perm, and Orenburg, are Asiatic. We therefore adopt the following general division:—

Governments.	Capitals.
SIBERIA	{ Tobolsk . . . Tobolsk
	{ Irkutsk . . . Irkutsk
	{ Astracan . . . Astracan
	{ Part of Perm
	{ Part of Orenburg
	{ Part of Caucasus Georgiewsk
	{ Cossacks of the
	{ Black Sea . . . Ekaterinodar
	{ Circassia . . .
	{ Georgia . . . Tiflis
CAUCASUS	{ Lesghistan . . .
	{ Daghestan . . . Derberd
	{ Schirwan . . . Baku
	{ Mingrelia . . . Zalkara
	{ Imeretta . . . Catalis.

Abassia, bordering on the north-eastern shores of the Black Sea, is under the protection of the Turks; and Circassia, with some divisions of the other provinces, nearly independent. Georgia, however, was incorporated with Russia in 1800. The extent and population of those various governments are uncertain.

The ice-bound shores of the Arctic Ocean stretch along the north; while the fury of the eastern wave, and the action of subterranean fire, seem to have rent the oriental regions into vast promontories and islands. An immense range of mountains sweeps along its southern confines, mingling with the Caspian and Caucasian chain. The Uralian mountains, which constitute the western boundary, we have already noticed.

In Asiatic Russia the general surface, like that of the European portion of this empire, is chiefly composed of steppes; sometimes arid or saline deserts, at others principally occupied by marshes, or covered with almost interminable forests; while some consist of a fertile soil, and produce a luxuriant vegetation. Asiatic Russia, however, is not destitute, on its confines, of mountain ranges. The great ridge which stretches nearly from the eastern shores of the Caspian to the promontory of Tschutskoi is known by various names. The Altaian mountains form a barrier between this empire and independent Tartary. South of the lake of Baikal the mountains of that name, supposed to be the highest points of the chain, rear their summits to more than 10,000 feet above the sea. In most parts of the chain, however, they are lower. After bending to the north, they are known as the Daouria, which are succeeded by those of the Yablonnoi and Stannovoi, which give place to the vague denomination of the mountains of Okotsk. The component parts of this range are various. In some, great masses of granite indicate a primitive formation, while in others, limestone, marble, petrified shells, and valuable ores abound. This range gives rise to many of the largest rivers of Northern Asia; but little is known beyond its outlines and general direction. Several lower ridges diverge from it, and diversify the neighbouring districts.

Through Kamtschatka also a mountainous range stretches, the highest summits of which are covered with perpetual snow, and many of them constantly shaken by volcanic fury. One of these is situated near Nijni Kamtschatka, and may be seen at the distance of more than 100 miles. Scarcely two years elapse without eruptions, when the whole country is covered with ashes for thirty miles round. Another active volcano rises near the southern extremity of Kamtschatka.

The Oby, the Yenisei, and the Lena, are the largest streams, and divide all the broad part of Siberia into three great basins. A few smaller streams also enter the Arctic Ocean from the narrower districts on the east. The first of these vast basins embraces all the space between the Uralian mountains and 90° of long., being about 30° from east to west, and 20° from north to south. Many writers place the source of the Oby in the lake of Altun, or Altyn, about

52° of lat.; but, as the Shabetian is the only confluent river of that lake, it may, with propriety, be considered as the parent stream, which extends several degrees to the south, and nearly to 95° of long. After crossing the Altaian chain it flows in a serpentine direction towards the north-west, till it meets the Irtysh, which issues from the said mountain range, and rivals it in magnitude.—Subsequently to its junction, it winds to the north, and forms that vast estuary called the Sea of Oby. Having collected the waters of such a wide space it becomes a large river long before it reaches the sea, and is in some places several miles in width. Its whole length is about 2180 miles, the greater part of which is navigable.—The Irtysh flows nearly in the same direction as the Oby, but a few degrees more to the west.

Several important streams likewise fall into the Caspian and Black Seas. The Ural rises from the south-western part of the Uralian chain, and, after flowing towards the west, turns to the south, and enters the Caspian. In the upper part of its course, its banks are steep and rocky, but it afterwards flows through a vast saline steppe: its fisheries are an inexhaustible source of wealth to the Cossacks. The Volga also falls into the same sea, which is likewise joined by the Terek and the Kuma on the west, while the Kuban or ancient Hypanis flows in the opposite direction, and enters the Euxine near the Isle of Taman.

Siberia contains few lakes; but the vast Baikal has often been delineated as an inland sea. Another large lake is met with about 52° of lat. and east of the Irtysh. Its length is 170 miles, and its shape very irregular. An island divides it into two parts, called the lakes of Tchany and Soumi. Several other lakes are situated between this and the Uralian mountains. That of Altyn has been mentioned in the description of the Oby. It is on the north side of the Altaian chain, and is nearly forty miles long and twenty broad. The largest lake in the north of Siberia is the Piazinskoi, in 68° of lat., and a few degrees east of the Yenisei. Some small saline lakes are found on the steppes north of the Caspian, and are considered as indications of that sea having extended much farther north than at present.

With respect to the climate, Asiatic Russia is colder than the European part, under the same latitudes. Beyond 60° the winter lasts nine or ten months, and the earth is frozen to a great depth; but the almost perpetual day imparts considerable heat to the summer. In the vast marshes traversed by the lower part of the Oby the whole accumulated heat of this period, however, does not thaw the ground more than two feet; and Gmelin states, that, at Jakoutsck, in 62°, the ground in the middle of summer was found to be frozen at the depth of three or four feet. The use of wells is therefore entirely prevented.

In the southern parts the cold is often extreme. Pallas witnessed the freezing of mercury in 58° of lat.; and even on the southern borders in 50° the cold is severe. North of the lake of Baikal, the summer is generally so short and uncertain

that agriculture is almost impracticable. In the most genial parts, where it is attempted, if the crop does not ripen before the end of August, it is usually buried in snow, before the husbandman can reap the reward of his labor. Captain Cook found snow six feet deep on the eastern coast in May, which was not dissolved till June. There the thermometer stood at 32° during the whole of the former month, and even in the middle of the latter it did not rise higher than 58°. In August it reached 65°, and the lowest point to which it sunk was 40°. In October the ground was again covered with snow. Winter then begins his sway, and, though in the latitude of England and some of the finest provinces of France, the mercury commonly stands below 20°.

With the name of Kamschatka is connected the idea of one of the most desolate and inhospitable regions on the globe. Its geographical situation, however, renders its climate and productions much superior to those of Siberia. Baron Steinheil, who lived several years in this distant land, and drew up a plan for the improvement of the country, asserts, 'From a long course of observations made during my residence in Kamschatka, I am convinced that both the climate and soil are such as that agriculture might be carried on with the most complete success.' But see our article KAMTSCHATKA.

The forests of Siberia contribute to render the air in many places damp and unwholesome, particularly in the western regions. The eastern districts are colder, but more salubrious. In most parts the winds are violent, and tremendous hurricanes often bury both man and beast beneath the sand and snow. Near the Caspian the inhabitants enjoy a warm and protracted summer, though the winter is cold. In the province of Astracan, the heat is sufficient to mature the grape, and much excellent wine is made. Mulberry-trees flourish also, and silk is produced in considerable quantities. In the mountainous region of Caucasus, the climate exhibits every variety. On the southern side heat prevails in the valleys, and cold on the mountains; the following extract from Mr. Glen's Journal gives a good idea of the climate of the northern side. 'The temperature of the atmosphere is in general,' he says, 'much more equable than at Astracan; the thermometer does not rise so high in summer, neither does it sink so low in winter; and, what may appear strange, the temperature is still more equable in the valleys of the snow mountains. Last winter (1818-19), when the thermometer fell to 17° in the colony, the rivulets among the mountains were not frozen, and the valleys were green all the winter through. The summer heats, too, are less oppressive. In short, from all accounts, the climate in these valleys does not materially differ from that of the valleys among the hills of our native country (Scotland). The most striking characteristic of a Karass winter, as it set in about the beginning of December, 1819, was a strong rind (rime), that lodged on the branches of trees, in the form of minute icicles, in such quantities as to weigh them to the ground, or break them. Its appearance is picturesque and romantic in a high degree; but its effect particularly in the orchards, destructive.

Nor are large trees proof against its overwhelming power. I have seen the massy branches of some of them break down with a crash, in a dead calm, merely by the weight of the rind. When it is strong, the whole country is overhung, sometimes for many successive days, by a thick fog.

The oak and the hazel, which bear the rigors of a German winter, will not flourish under the same parallels in Siberia. They indeed stretch along the northern base of the Altaian chain, but farther north they become stunted. The common heath that covers many of the lower districts of Lapland is not to be found in these wastes. It must not, however, be inferred that these plains are merely tracts of snow; on the contrary, almost interminable forests of birch, elder, lime, maple, poplar, and aspen, interspersed with millions of pines, cover many parts. The Siberian plum, the crab, the mountain ash, the willow, and other trees, are found; and the short summer exhibits a brilliant display of flowers. The lily of the valley, and several bulbous-rooted plants, are concealed beneath the snow for the greater part of the year.

Though *agriculture* is but little practised in Siberia, the crops are occasionally good; nearly two-thirds of the country, however, yield no grain. Hemp and flax are cultivated in some parts, and the potatoe has likewise been introduced. The cattle, in a few of the richest steppes, are of a tolerable size, and the Mongol horses are beautiful; some of them resembling the tiger, and the leopard, in the variety of their colors. In all the northern and eastern regions, except Kamschatka, and a few other parts, where dogs are employed in drawing sledges, the rein-deer is, however, the most valuable possession of the natives. The utility of this singular animal is greatly enhanced by its capability of enduring the most extreme cold, and subsisting on a species of moss. A Samoiede often possesses 150 or 200; and the wealthy Koriaks and Tchouktchis several thousands each. The Siberian dog resembles the wolf, and in many parts supplies the place of the rein-deer, in drawing the sledge. The wild animals are numerous.

The *mineral* productions of Russia are chiefly obtained in the Asiatic regions.

The primitive mountains supply granite and porphyry in great abundance. Alabaster is also found in extraordinary quantities and of every color. Yellow, gray, and cloudy marble abounds in many places, and white is found in the Uralian quarries, little inferior to the finest Parian. A great variety of gems have also been discovered in the mountainous part of the empire.

Various parts of Russia yield gold, silver, copper, iron, and lead. The chief gold-mines are on the Asiatic side of the Uralian mountains, and were first opened in 1754. These annually supply about 6430 tons of ore, which yield about 190lbs. of refined metal. But the produce has now been increased, as is stated, to nearly 280lbs. of gold. The mines which were previously opened, in the mountains of Olonetz, have either been abandoned or are now little productive.

Mines of silver are worked in several places,

but chiefly in Asia; and the whole produce is stated at 46,800lbs. of the refined metal. Lead mines have been worked in Russia for more than a century, and still yield a considerable quantity of metal. The number of workmen employed in all these mines is estimated at 70,000; and the value of the produce exceeds double the expenses of working them. Copper is obtained in the mountains of Olonetz, in the Uralian chain, and in Asia. The quantity of copper now annually obtained has lately been stated at 67,000 quintals, each equal to about 108lbs. avoirdupois, which is consequently equal to 3230 tons; and its value exceeds £250,000.

Most of the mountains, and many of the plains, of Russia afford iron-ore, and great quantities are annually procured, in the manufacturing of which about 100 forges and 800 hammers are constantly employed. The value of the iron is more than double that of the copper. The whole produce of all the gold and silver mines belongs to the crown, with a sixth of the copper and one-eighth of the iron.

Coal has been found in various parts of Russia, and attempts are making, under the immediate sanction of the emperor, for discovering it in others.

Salt abounds, and is found in the pure and solid rock, at the bottom of the lakes, in the liquid spring, and incrusting the plains. Rock salt is obtained in the government of Orenburg, and in the steppe of the Volga; the salt lakes of Saratof, Taurida, and other places, yield large quantities, as well as the impregnated springs of Perm and Novogorod. Glauber's salts, and several of the other saline species, are likewise found. Thermal springs are found in various places, and of different temperatures, from merely warm to 190° of Fahrenheit's thermometer. The most celebrated vitriolic waters are at Sarepta, near the banks of the Volga, in the government of Saratof, and are much frequented. The water is clear and saline, its taste not unpleasant, and its temperature generally about 10° of Fahrenheit above the common water in its vicinity. These waters are beneficial in various complaints, such as inflammations, cramps, and inveterate colds. They are supposed to contain about 1-200th part of earthly and mineral ingredients. The spring is very copious. The principal places in European Russia where naphtha is found are in the district of Perekop, in the government of Taurida, and in the Island of Taman; but it is still more abundant in the Asiatic part of the empire. Incrusting springs are numerous, and the mountains contain stalactic caverns, with springs that incrust substances with a coating of iron ore.

The chief towns of the provinces will be found in their places in our alphabet, and St. PETERSBURG and Moscow have received our particular attention, see these articles. Kiev, the original cradle of the monarchy, was settled by a colony of Sarmates before the Christian era. Its appearance from the Moscow road is thus described by Mr. James:—'Arrived at the top of a declivity,' says our traveller, 'a new scene presented itself. The cupolas, that before were but as spots in the view, faced us with a blaze of gold, and a thousand gay colors which dazzled the eye.

The country below showed an unvaried plain of immeasurable extent, covered with a thick forest, through the middle of which the Dnieper, now dwindled to a streamlet, was seen winding its silvery path into the horizon. It was a land seeming untouched by man, and afforded a prospect as wild in appearance as any that the most uncivilised tracts of America could furnish.' Kiev is celebrated for its ancient catacombs, which render it the resort of numerous pilgrims, many of whom undertake a journey of 1500 versts on foot.

Tcherchaskoy, the capital of the Don Cossacks, is situated on the river Don, about 100 miles before it is lost in the sea of Azof. It is thus described by Dr. Clarke:—'The appearance of Tcherchaskoy, as the traveller approaches it upon the river, affords a most novel spectacle. Although not so grand as Venice, it somewhat resembles that city. The entrance is by broad canals intersecting it in all parts. On each side wooden houses, built on piles, appear to float on the water; to these the inhabitants pass in boats, or on narrow bridges, only two planks wide, with posts and rails, forming a causeway to every quarter of the place. As we sailed into the town, we beheld the younger part of the inhabitants upon the house-tops, sitting upon the ridges of the sloping roofs, while their dogs were actually running about and barking in that extraordinary situation. During our approach, children leaped from the windows and doors like so many frogs, into the water, and in an instant were seen swimming about our boat. Every thing seemed to announce an amphibious race: not a square inch of dry land was to be seen; in the midst of a very populous metropolis, at least one half of its citizens were in the water, and the other in the air.' The population is estimated at 15,000 individuals. Nicholas is the chief town in the southern part of the empire.

The principal town in the eastern part of Siberia is Irkutsk, on the right bank of the river Angara, at a short distance from the sea of Baskal. The streets are in general broad and regular, but not paved. Most of the private dwellings are of wood; the government buildings and churches of stone. This is now considered as the capital of the whole of Siberia. The mode of living is quite oriental; and the wives and daughters of the principal citizens are seldom seen except on public occasions. Nearly in the same latitude, on the Chinese borders, and about ten or twelve degrees further east, stands Nertschink, in the midst of a mining district. The caravans engaged in the China trade formerly passed through Nertschink, but since they have followed a different route it has declined. Kiakhia, in the government of Irkutsk, and on the borders of China, has lately risen to eminence, as the centre of the trade between the two empires.

The privilege of engaging in arts and manufactures in Russia was, till lately, reserved for the nobility and the first and second class of artizans. But the emperor Alexander, by an imperial Ukase, dated December 1818, removed this obstacle to improvement. Among the articles most extensively made are linen, leather, isin-

glass, and kaviar, of which large quantities are exported. The two latter are prosecuted with great success on the banks of the Volga, and other great rivers in the south. Silk, cotton, woollen-cloth, sail-cloth, hats, lace, glass, porcelain, oil, soap, candles, cordage, and paper, are likewise manufactures found in various parts of the empire. Those of pitch, tar, pot-ash, alum, saltpetre, and gunpowder, with iron, brass, and copper works, are numerous: nor is any one more extensive or more productive to the revenue than that of spirituous liquors. Cannon, and all other implements of war, are made in great numbers; and several steam engines have been purchased in England, for the improvement of the different national establishments. Breweries and sugar-refineries have likewise been introduced.

The *fisheries* of the Volga, the Ural, and other rivers, form an important part of the Russian industry. Those of the last named river belong entirely to the Cossacks, to whom it has proved an inexhaustible source of wealth. The manner in which they are conducted is thus described in the European commerce of Rordansz:—‘The river Ural flows into the Caspian; when winter approaches, the fish seek refuge in the river from the storms which at that season visit the Caspian. They ascend the river in such immense numbers that it is hardly possible to form an idea of it, and stop at different places where they find sufficient water and food. The Cossacs carefully observe, beforehand, all the places where such a mass is collected, and wait there patiently till the river is frozen over. On the 1st of January the fishery begins upon the whole river, from the capital town Uralski, down into the Caspian Sea. Above and below the several banks of fish, the hetman first causes the river to be blockaded by means of large double nets extended across its whole breadth, which is effected by cutting in the ice a ditch, if it may be so called, two feet broad. As soon as it is certain that the fish cannot escape, the governor of Orenburg and the hetman of the Cossacks repair to a certain place on the bank of the river, and on both sides of it above 30,000 Cossacks are ready, each in his own sledge, drawn by a strong and swift-footed horse, and armed with a harpoon and an axe. By the order of the governor, a cannon is fired as a signal for beginning; hereupon the Cossacks all rush upon the river, and drive full speed to the fish-bank, enclosed with nets, which is usually some versts distant. Those who arrive first are praised not only for the swiftness of their horses, but for their courage, for this racing is attended with no little danger; because, if any one should be so unskilful, or so unlucky, as to overturn his sledge, all those that follow would infallibly drive over him. As soon as the Cossacks reach the place where there is such a bank of fish, they immediately cut a hole in the ice with their axe, and thrust in their harpoon, and the quantity of fish is so great that they never fail to strike one at every time. The terrible noise caused by the driving of 30,000 sledges over the frozen river naturally terrifies the fish, which try all to escape at once, but are hindered by the nets. The greatest difficulty for the fishermen

is to draw out the fish, and they are often obliged to call their comrades to assist; for they sometimes spear fish weighing 150 lbs. to 200 lbs.; but in such cases they must divide the fish with him who assists them. This fishery continues the whole winter, during which the Cossacks dwell in tents on both sides of the river. They proceed successively from one bank of fish to another, down to the mouth of the river. During this time, the river affords a very peculiar spectacle; both its surface and its two banks are covered with a countless multitude of men, who are in constant motion. Traders come from the remotest parts of the empire to buy the fish immediately from the Cossacks, with a great train of sledges, all loaded with salt; they constantly attend the fishery in its progress down the river to the sea. Every evening the Cossacks sell to them what they have caught during the day, and receive payment on the spot. The merchants send the fish (which are frozen quite hard) to Moscow, Casan, &c., and also an incredible quantity of the salted row of sturgeon, known under the name of kaviar. It is astonishing what a great number of different kinds of fish are found in the Ural, and they all attain an extraordinary size, particularly the sturgeon, salmon, and pike. The very best of these fish cost, on the banks of the Ural, not more than a half-penny, or three farthings a pound. The day when the fishery begins, the governor has the fish, which the Cossacks send as a present to the emperor, chosen from among the whole number, and sends them without delay to St. Petersburg, where they arrive quite frozen. The quantity is fixed, and it is said to be very considerable. In summer the Cossacks also carry on the fishery; but it is far less productive, and, as the fish will not keep in this season, the Cossacks salt them immediately, and send them to the neighbouring towns for sale.’ The whale and seal fishery is chiefly prosecuted in the Arctic Ocean.

Among the exports of Russian commerce, are iron, copper, hemp, flax, linen, sail-cloth, cordage, grain, tobacco, linseed, saltpetre, and oil; with timber, planks, masts, pitch, tar, resin, pot-ash, wax, tallow, hides, candles, isinglass, kaviar, and horse-hair. Leather is the most important manufacture exported, and the greatest endeavours are used to keep the method by which it is prepared a secret. For these articles the Russians receive in return silks, woollen, and cotton cloth, hardware, looking-glasses, stockings, watches, wines, brandy, and fruits from southern Europe, with colonial produce, paper, books, engravings, &c., from England, and other states. It is estimated that one-half of the trade of Russia is carried on within the confines of the capital. The trade of Russia with Persia is by means of the Caspian, and the caravans that travel to Orenburg, a few degrees north of that sea. The chief articles are woollens, furs, iron, steel, copper, lead, and other native productions. Russia receives in return silk, cotton, drugs, tapestry, gold, pearls, and diamonds. The trade of China is carried on from the frontier of Siberia, and consists in the exchange of furs, iron, copper, and other minerals, for Chinese silks, tea, musk, tiger skins, and a few other articles.

The annual amount of this commerce is between 3,000,000 and 4,000,000 of rubles. With Turkey, the Russians exchange kaviar, soap, leather, iron, and other produce, for olive oil, wines, rice, and fruits. Of the whole foreign European trade of Russia more than half is with Great Britain, the different articles of which have been specified above.

We may now exhibit the comparatively modern rise and *progress of the maritime greatness of Russia*. At the close of the seventeenth century, when Peter the Great ascended the throne, Russia was still in a state of barbarism, in comparison with the other nations of Europe. This prince possessed from nature a great activity of disposition, an impatient ardor, and a perseverance which obstacles only served to stimulate. With such a character it was natural that Peter should form the project of improving his subjects, and of making Russia act a part amongst the nations of Europe; but to this effect it was necessary to have suitable communications with the ocean, and the procuring them was the first object of the enterprises of the czar. He first turned his views towards the White Sea, and in person visited Archangel; but observing that its distance, and the severity of its climate, opposed insurmountable obstacles to any considerable extension of industry and commerce, his next object was the Black Sea, situated under a more favorable climate, but of which the coasts were possessed, and the navigation watched with jealousy by the Turks. A war breaking out between the two nations, Peter attacked Azoph, but failed in the attempt, for want of vessels to block it by water. A fleet being, however, quickly created, the following year put him in possession of this fortress and its territory, but which the defeat of Pruth again obliged him to relinquish.

Peter now seriously occupied himself in the creation of a navy; and, in order to give full effect to his designs, he visited, as we have seen in his life, England, Germany, and Holland, in order to acquire a knowledge of the art of constructing vessels, and of the details of a marine. During his travels the activity and opulence of Riga, Königsberg, and other ports of the Baltic, did not fail to strike him, and to give him a just idea of the importance of maritime commerce. Not far from the frontiers of his dominions he met Augustus, who, on being raised to the throne of Poland, had promised his subjects to reconquer the Polish provinces, reduced under the dominion of Sweden; but, being too weak to execute this promise alone, he proposed a coalition to the czar. A perspective conformable to the views of Peter now presented itself; and on his return to his dominions he armed, and the coasts of the Baltic became the theatre of his efforts. While Charles XII. was overrunning Poland and Saxony, Peter seized on Ingria, and founded Petersburg.

In spite of the superiority of situation, and the encouragement given to foreigners to visit his infant capital, a great part of the productions of Russia were still sent to Archangel, until, prohibitions and punishments being added to premiums and privileges Petersburg at last triumphed.

The first foreign vessel that entered the Neva was a large Dutch ship, richly laden; and her arrival caused such satisfaction to the czar that he granted this vessel an exemption from all duties while she should continue to trade to Petersburg; and by frequent repairs she was kept in existence for more than half a century. So early as 1718 100 ships of the same nation loaded at Petersburg; and, other nations following the example of the Dutch, it was soon known that a vast field was opened in the north for the exercise of talents and industry, and strangers of all nations flocked to Russia to improve or seek their fortunes. The merchants of Germany, England, France, Holland, Denmark, and Sweden, established themselves in the cities for the purposes of commerce, while the English and Dutch also supplied ship-builders and officers, both of land and sea, who improved the organisation of the armies and fleets.

The plans of Peter were not lost sight of by his successors; Catharine II., in particular, by her victories and her negotiations, as well as by the encouragement of foreigners and the protection of commerce, accelerated the progress of industry and civilisation amongst her subjects.

Although a part of the commercial productions of the Russian dominions are still exported from Archangel, and another part from the ports of the Black Sea, since its navigation has been opened, the principal commerce of Russia is by the *Baltic*. From its ports on this sea are exported corn, hemp, flax and flax-seed, fir timber (masts, deals, rafters), pitch, tar, and potash, iron and copper of Siberia, hides and tallow, honey and wax, rhubarb, tobacco in leaf, fish oil, isinglass, kaviar, and furs of Siberia, viz. castors, sables, foxes of various colors, wolves, squirrels, bears, rats, and white hares. In 1793 Russia exported by sea, for 400,000 rubles of these furs; sea-birds' feathers, horse-hair, hogs' bristles, and neats' tongues. The chief manufactured objects are saltpetre, cordage, and sail-cloth; coarse linens, mats, and soap. The principal imports are English manufactures, viz. fine woollens, glass, and earthenware, stationary, all kinds of cottons, mathematical instruments, cutlery, and hardware, tin and lead. The other imports are colonial produce, particularly coffee, of which Petersburg imports nearly 1,500,000 lbs.; sugar, of which it receives nearly 5,000,000 lbs.; tea and spices, wines, liqueurs, fruits, and oil of the south; fine linens of Holland and Silesia; silks of France, watches, toys, &c., of ditto, besides various utensils of iron and copper.

In the middle of the eighteenth century the exports of Russia from the Baltic did not exceed 12,000,000 or 13,000,000 of rubles, and the imports about 8,000,000 or 10,000,000. At the close of the same century the exports exceeded 45,000,000, and the imports were above 32,000,000. The general statement of the Russian maritime commerce (independently of the Caspian and Siberian Seas*) was as follows:—

* The amount of the commerce of the Caspian Sea, in late years, has been about 100,000 rubles of exports, and 800,000 of imports.

	Exports.	Imports.
	Rubles.	Rubles.
1802, From the Baltic	47,000,000	33,000,000
1804,	45,000,000	27,000,000
1805,	52,000,000	29,000,000
1802, From Archangel	5,000,000	550,000
1804,	2,200,000	390,000
1805,	3,750,000	390,000
1802, From the Black Sea	3,000,000	2,055,000
1804,	5,000,000	4,200,000
1805,	7,400,000	5,356,000

Catharine II., by duties and prohibitions, endeavoured to diminish the mass of imports; and, by late regulations, certain objects are allowed to be imported by foreigners only into the ports of Petersburg, Riga, Revel, and Liebau. But, though the manufactures of Russia have advanced beyond the state of infancy they were in half a century past, they are still very insufficient to afford all the objects that increasing civilisation renders necessary to the higher classes, such as fine manufactures for clothing, wines, ornamental furniture, &c.

Russia presents a singular phenomenon among the maritime powers, that of possessing an imposing military marine with a very insignificant commercial one. The total number of her merchant vessels that navigate the Baltic and the ocean did not very lately exceed fifty; 100 lesser vessels serve to carry on the coasting trade of the Baltic, and about 100 craft, of twenty to thirty tons, are employed in loading and discharging the vessels at Cronstadt that cannot enter the Neva. Not one of the Russian ports, except Petersburg, has any establishments for building or repairing ships. Even the few ships that sail under the Russian flag from Riga and Revel belong to the merchants of Hamburg and Lubeck, who, in order to profit by the drawback of three-eighths of the duties on imports, have purchased the freedom of these cities.

Russia has two trading companies, one for carrying on the herring-fishery in the White Sea, and the North-west American Company. A company has also been founded at Petersburg for saving the cargoes of vessels wrecked in the gulf of Finland; and the fourth part of the property saved is adjudged to the company as salvage. Several ukases also prescribe to the inhabitants of the coasts the measures to be taken to assist the crews and save the cargoes of the stranded vessels.

Under the immediate successors of Peter the Great the Russian navy was neglected, and had little more than a nominal existence. When Catharine II. mounted the throne, this ambitious and enlightened princess again invited English and other foreign ship-builders and officers to Petersburg; and among the English was Sir Charles Knowles, a captain in the British navy, who united the professional knowledge of the complete practical seaman to an intimate acquaintance with the theory of naval construction. Under his direction the Russian marine was

soon put on a respectable footing, and many of the abuses in its civil administration corrected. Towards the end of Catharine's reign the marine again declined, but revived under Paul, who built many ships, and introduced several improvements into the administration. The Russian dominions afford every article necessary to the construction and equipment of a navy. At Cronstadt and Petersburg the ships are built of the oak of Kasan; the Ukraine and government of Moscow supply hemp; masts are procured from the vast pine forests of Novogorod, and from the Polish provinces; pitch and tar from Wyborg; iron and copper from Siberia. In spite of all these advantages the marine is far from having attained a height proportionate to the land forces of the empire. The want of ports on the ocean, and of colonies and fisheries abroad, as well as the state of vassalage of the peasantry, which binds them to the soil, are the chief causes that keep down the military marine, as well as the commercial, by preventing the formation of seamen. The government has, however, latterly done something towards forming national seamen, by obliging all Russian ships to have two-thirds of their crews natives; and binding the captains, under a penalty of 240 rubles, to bring back to port every Russian seaman he carries from it. There is, however, no restriction with respect to the countries of the captains and officers of merchant vessels; and the greater number of those in the Russian foreign traders are foreigners. It has also been latterly the custom to send young men, at the expense of the crown, into the English service to learn the profession, and they have been admitted into the British navy as volunteers.

In 1803 a school of naval architecture was founded at Petersburg, the expenses of which are paid by government, and amount to upwards of 200,000 rubles a year. There is also a similar institution at Nicolaef in the Black Sea. The palace of Oranienbaum has been appropriated for a naval academy, in which 600 cadets are educated at the expense of the crown. They are admitted at the age of five years, and remain till seventeen; during the last three years they make an annual cruise in the Baltic, as far as Revel. There are also navigation schools at Riga, Archangel, and Irkutsk in Siberia, and a school for Baltic pilotage at Cronstadt.

The government of Russia is a despotic monarchy; the sovereign uniting in himself the legislative, executive, and judicial authorities. Any subject, from the highest to the lowest, may be banished, and his property confiscated, at the pleasure of the czar. The succession appears to be hereditary; but one prince has often been deposed and another raised to the throne without exciting any commotion. The emperor is generally assisted, however, by a number of ministers and counsellors of his own appointing. The grand chancellor is the first officer of state; and under him are ministers for foreign affairs, finances, war, marine, interior, religious worship, public instruction, and police. The different councils in which the ministers preside are styled imperial colleges: the members, with a number of other statesmen appointed by the

emperor, amounting altogether to thirty-five, compose the supreme council, which is invested with a superintending and controlling power over all the public affairs. The senate is another public body, established by the late emperor in 1801, and of which his imperial majesty is the president. This body has the revision of both civil and criminal affairs. It receives reports from all the inferior departments, decides in every difficult case that arises in the tribunals; and from its decrees there lies no appeal except to the emperor. All questions are determined in this body by a majority of votes, amounting to two-thirds of the whole: in the other departments unanimity is necessary. The senate is the organ of the decrees or ukases of the emperor. The cabinet is a distinct council from any of the above, and has generally consisted of ten members, including the high steward of the household. This council manages his majesty's private affairs, examines petitions, despatches, and accounts, and watches over the produce of the revenue. It also assists the emperor in deliberating on the appeals received from the senate.

The civil law in Russia is a collection of laws derived from most of the other states of Europe, and methodised under the direction of Catharine II. She divided the empire into provinces, and adopted a variety of regulations for the better administration of justice. Courts are now established in each of the provinces, and judges appointed by the crown. But an impartial administration of justice cannot be introduced between the nobles who are tyrants, and the peasants, slaves. The criminal law admits of capital punishment for high treason only; and the humanity of the emperor Alexander induced him to abolish torture. Felons receive the knout, are branded on the cheek and forehead, and sentenced to hard labor. Many of them are sent to the mines of Siberia, where numbers perish from the effects of the knout, the fatigue of travelling nearly 5000 miles in fetters, and the unhealthy state of the mines.

The nominal force of the army is 600,000; but in time of peace one-fifth or one-sixth of this number is non-effective, and at least an equal number are required for garrison duty. At the beginning of 1812 the utmost exertions of the emperor could not bring into the field more than 200,000 men. The navy we have already noticed.

According to the most authentic accounts the revenue of Russia is nearly £25,000,000 sterling, arising chiefly from a poll tax, first imposed by Peter the Great; a tax on the capital of merchants residing within the imperial dominions; duties on the exports and imports, and upon law proceedings; together with the produce of the royal domains and monopolies. There are likewise stamp duties, and various other imposts.

The established religion is the Greek church, and has been fully described in our article GREEK CHURCH. There are about 2,000,000 of separatists, with a great number of Mahometans and Pagans, as well as Protestants and Roman Catholics, to all of whom complete toleration is allowed. The most singular of the sects is the Duhoborsti, who, after many persecutions, have

been allowed to settle undisturbed in Taurida. They have neither priests, church, nor pictures; and reject both baptism and the Lord's supper. They are sober, industrious, and gentle, and distinguished by mutual affection, hospitality, and benevolence. They take great care to bring up their children in the principles and precepts of religion. Their worship is confined neither to place nor time, and consists of singing, praying, and reading the scriptures. They have all things in common, and their only punishment for those who have transgressed the rules of the society is banishment from the community.

Education was much neglected in Russia till a late period; for though various schools, academies, and colleges were instituted, their benefits were confined to certain classes, and their influence was little felt on the general condition of society. A great number of schools have been established, in the different provinces, for the education of the peasants. The academies and universities have been improved or remodelled, and more amply endowed with funds, for the liberal support of the professors, and the better accommodation of the students, the number of whom has been greatly increased. The Russian language is a dialect of the Slavonian, harsh and difficult of utterance, but it is said to possess great copiousness. The alphabet comprises thirty-six letters, formed of the Greek characters, with others apparently of native origin. The language, however, is far from being in a precise form.

Dr. Clarke says, 'in whatever country we seek original genius we must go to Russia for a talent of imitation. It is the scheme of Russian intellect; the principle of all their operations. They have nothing of their own; but it is not their fault if they have not every thing that others invent. Their surprising powers of imitation exceed all that has hitherto been known. The meanest Russian slave has been found adequate to the accomplishment of the most intricate and most delicate works of mechanism, to copy, with his single hand, what has demanded the joint labors of the best workmen in France or England.' Mr. James (in reference to this subject)—'Newly extricated from barbarism, the infant mind is seized with the desire of pursuing whatever strikes the fancy, or serves to interest or amuse, while the labors of more rigid science and learning are entirely thrown aside. We find at Petersburg few men of abstruse acquirements, yet musicians, poets, and painters in abundance; and the nation has arrived in these arts, it must be confessed, at a highly reputable pitch of perfection. The works of art, though not fraught with the spirit of originality of the southern professors, yet display in almost every branch the most correct and refined taste; and even the natives shine, while the prejudices of their countrymen have denied them a fair share of patronage. The academy of arts is fostered by the superintendance of the crown; and, from the revenues allotted to it, it is well furnished with models from the antique, as well as other matters suited to its institution. The labors of the students exhibit some of the highest specimens of imitative excellence; their designs in archit-

ture are of great merit, and their pictures possess a free style of execution, combined with chasteness and harmony of color, seldom equalled in any school.' Their music is framed in the Italian state. Many of the national airs are extremely simple and regular. The cultivation of science has been encouraged by the establishment of various institutions for that purpose; and several volumes of the memoirs of the Academy of Sciences, founded at St. Petersburg in 1725, have been distinguished by the excellence of their papers in the abstruse parts of mixed mathematics. The chief Russian universities are those of St. Petersburg, Kiev, and Abo, with the colleges founded by Peter the Great at Moscow.

More than eighty distinct nations are said to be included within the limits of this empire, and thus exhibit man in every state of his physical and moral condition, from the being who lives on the produce of the chase, clothed in the skins of his prey, and sheltered in the recess of a rock, or the wandering Nomade, who pitches his tent to-day, removes it to-morrow, and is entirely dependent upon the produce of his flock, through the humble peasant, the industrious husbandman, the ingenious mechanic, the wealthy merchant, the owners of almost unknown estates, and the proprietors of men, to the autocrat of all the Russias. The Slavonians constitute the great body of the population of European Russia: this part of the empire embraces, beside Fins and Laplanders on the north-west, the Samoides on the north-east; the Cossacks on the south, and the Tartars of Taurida on the south-east. The Slavonic Russians are middle-sized, robust, and vigorous, differing little in complexion from the inhabitants of Great Britain. Those towards the north are a more diminutive race. Their characteristic physiognomy, according to Mr. Tooke, is a small mouth and eyes, thin lips, and white teeth, the nose usually small and turned upwards, the forehead low, the beard thick and bushy, and the hair varying from dark brown to red. The general expression of the countenance is that of gravity rather than sprightliness, but indicating much good-nature. Accustomed to implicit obedience from the nature of the government, and trained to the endurance of hardships and privation from their manner of life, they seem neither to fear danger, nor shrink from fatigue, are subject to few diseases, and frequently attain old age. With the same general features the women have a delicate skin and a fine complexion, which they often destroy by a free use of paint. 'On looking at their faces you easily discern the Tartar and Kalmuc ingraftation upon the old Moscovite stock. The visage is short, the bones of the cheek high, the forehead projecting, and the eyes small. Their stature is commonly of the middle size; and, from their habits of life, both men and women are inclined to be very corpulent. When a tinge of the Georgian Poles and Circassians mingles with the Russian blood, the result is the most exquisite beauty.'

The whole people of Russia may be said to consist only of two distinct orders, the nobles and the peasants. The interval between these has been denominated a tiers etat; but, as far as

relates to all the practical purposes of life, it is filled up by foreigners, who once enjoyed all the lucrative branches of commerce, in which only a few of the natives as yet participate. 'The privileges of a nobleman consist in being exempted from military conscription, and from corporal punishment; in having the right to establish manufactories, to possess land and slaves, to impose taxes, and to inflict chastisement upon them, &c. The charges on this class are to furnish recruits to the crown, and to pay a certain fee on the alienation of their property. Besides those who enjoy the above-mentioned rights by inheritance, these advantages are attached to certain stations in the civil and military lines; assessors in the chancery, for instance, and all officers of the army or navy, are called nobles, though the possession of slaves is limited to persons above the rank of major. The imperial companies of trade at Petersburg also participate in certain of these immunities, and are allowed to use carriages with one pair of horses. But even the nobility can neither marry, nor choose a profession, without the emperor's consent. Their estates are valued by the number of peasants they support. Several of the nobility possess more than 100,000 peasants; the property belonging to the family of Scheremeter consists of 125,000 slaves. Both in their privileges, and in their manner of life, these nobles seem to be exact copies of the great feudal barons of the middle ages. Many of them, in the country, have households consisting of 500 or 600 peasants, who perform all the various duties of butchers, bakers, tailors, shoemakers, footmen, valets, surgeons, musicians, and comedians; for which they are selected without discrimination. Their destinations are determined upon, and they are then qualified for them by the cudgel.—James's Travels.

Dr. Clarke exhibits a lively picture of the effect of the extremes of poverty and riches in this empire.

'To this poverty, and to these riches, are equally joined,' he says, 'the most abject meanness, and the most despicable profligacy. In sensuality they are without limits of law, conscience, or honor; in their amusements always children; in their resentment women. The toys of infants, the baubles of French fops, constitute the highest objects of their wishes. Novelty delights the human race; but no part of it seeks for novelty so eagerly as the Russian nobles. Novelty in their debaucheries; novelty in gluttony; novelty in cruelty; novelty in whatever they pursue. This is not the case with the lower class, who preserve their habits unaltered from one generation to another. But there are characteristics in which the Russian prince and peasant are the same. They are all equally barbarous. Visit a Russian, of whatever rank, at his country seat, and you will find him lounging about, uncombed, unwashed, unshaven, half-naked, eating raw turnips, and drinking quass. The raw turnip is hauded about in slices, in the first houses, upon a silver salver, with brandy, as a whet before dinner. The real Russian rises at an early hour, and breakfasts on a dram with black bread. His dinner, at noon, consists of the coarsest and most greasy viands, the scorbutic effects of which

are counteracted by salted cucumbers, sour cabbage, the juice of his vaccinium, and his nectar quass. Sleep, which renders him unmindful of his abject servitude and barbarous life, he particularly indulges; sleeping always after eating, and going early to bed. The principal articles of diet are the same every where, grease and brandy.

A uniform costume is seen in all parts of Russia, only differing in quality as it is worn in the country or the capital. In the one it is a sheep-skin tunic, fastened round the waist with a girdle; in the other of cloth, plaited behind like a petticoat. The hair is cut in one shape, and the lower part of the face is always hid by a beard. The females retain much of Asiatic finery and gaudy robes. They wear a saraphan, or vest without sleeves, fitting close about the neck, down to the hips, and reaching to the feet. A row of close-set buttons usually adorns the front, and it is girt round the waist with a sash, to which the keys in common use are suspended. In some parts the females wear their hair bound up with a riband, or band, which crosses the forehead, and which is often decorated with pearls and beads of various colors: in others they wear caps made in the form of an upright crescent. In the vicinity of Moscow, and in some of the adjacent parts of the country, the cap has a front resembling that worn by the English jockey, studded with pearls or beads. The houses of the peasants are all of rough logs of wood, and in villages these are uniformly placed with their ends to the street. The walls have their interstices stopped with moss. The whole family sleep in the same room, reclining on mats, straw, or sheep-skins, and in the clothes they wear during the day. The favorite place at night is on the edge of the stove, which is raised above the floor with a few bricks.

A peculiar custom of Russia is the frequent use of the warm bath, with which the meanest hamlets are provided. The heat they sustain on these occasions would be almost insupportable to other people. It is usually from 100° to 130° of Fahrenheit's thermometer; and the vapor is renewed every five minutes, by water thrown on hot stones. Such is the effect of habit on the constitution of the Russians that they frequently sally forth from these steam caldrons, and plunge immediately into cold water, or roll in the snow; and male and female, old and young, not only of the same family, but even of the same village, all assemble in the bath together.

We must conclude this part of our paper with a sketch of the mode of travelling peculiar to Russia: we mean the extensive and skilful use of sledges. Sometimes a body, like that of a coach, is placed on a sledge, which unites the advantage of repose with the convenience of rapid motion. In this manner eighty or 100 miles a day are performed. And hence the Russian prefers the winter for his long journeys. In summer travelling is far more tedious and fatiguing by the badness of the roads, which are often composed of rough logs of wood, laid transversely on beams. Of his passage over one of the large rivers, Mr. James says, 'Nothing could be more strikingly wild than our passage

over the Ypoote. A raft of trees loosely pinned together was provided; a rope, made from the bark of trees, served for its draught; on either bank of the river rose a vast forest, not thick and luxurious, but bared in many a line by the progress of age and decay; amidst its shades were seen the white shirts and black fur caps of the Tartars, as they scampered along in the wantonness of sport, with their horses at full speed; their caravan, just arrived, was ranged on the river side, and the oxen were seen, every now and then, as the raft put off, plunging into the stream, and swimming to the opposite shore.'

SOUTHERN RUSSIA is largely inhabited by the Cossacks, who present the singular anomaly of a free people in the midst of abject slavery. As free as a Cossack is a common proverb in Russia. They have been acknowledged as a distinct race for more than nine centuries; and, according to their different emigrations and settlements, are at present distinguished by the names of Malo-Russian Cossacks, Don Cossacks, Cossacks of the Black Sea, of the Volga, of Grebenskoy, of Orenburg, of the Ural Alps, and of Siberia. The subsequent remarks, chiefly confined to those within the European part of the empire, are principally derived from Dr. Clarke's Travels.

The ramifications of the Cossack republic, for such it is, extend into various parts of a vast despotic government, which considers it a matter of policy to guarantee their privileges. Nor do the Cossacks afford a greater contrast with the Russians in their political existence than in their personal appearance and individual character. These people are thus contrasted by the intelligent author above referred to, and who had excellent opportunities of witnessing the two nations. In reference to the Cossacks of the Don and the Black Sea, he says, 'The Russian regards both with aversion, and affects to consider them beneath his notice, and unworthy of his society, for no other assignable reason than ignorance or envy. The Cossack is rich, the Russian poor. The Cossack is high-minded, the Russian abject. The Cossack is for the most part clean in his person, honorable, valiant, often well informed, and possesses, with his loftiness of soul, a very noble stature; the Russian is generally filthy, unprincipled, dastardly, always ignorant, and rarely distinguished by any elevation of mind or body.' Many of those vast steppes in the vicinity of the Don, which appear as blanks in our best maps, are said to be filled with Cossack abodes. Stanitzas, or settlements, are formed along all the rivers by which they are intersected; and the late bishop Heber states that the procurator (who is a person appointed by the Russian government to superintend the execution of the laws) affirmed to him that the whole number of Cossacks liable to be called upon for active service amounted to 200,000 men. The entire male population is reckoned at 500,000. 'There is something extremely martial, and even intimidating, in the first appearance of a Cossack. His dignified and majestic look; his elevated brows and dark mustachoes; his tall helmet of black wool, terminated by a crimson sash, with its plume, and white cockade; his upright posture; the ease

and elegance of his gait; give him an air of great importance. We found them in considerable numbers at Kasankaia, lounging before their houses, and conversing in such large parties that it seemed as if we were entering their capital. Their dresses were much richer than any we had seen in Russia, although all were uniform. Each person's habit consisted of a blue jacket, edged with gold, and lined with silk, fastened by hooks across the chest. Beneath the jacket appeared a silk waistcoat, the lower part of which was concealed by the sash. Large and long trowsers, either of the same material as the jacket, or of white dimity, kept remarkably clean, were fastened high above the waist, and covered the boots. The sabre is not worn, except on horseback, on a journey, or in war. In its place is substituted a switch, or a cane, with an ivory head: this every Cossack bears in his hand, as an appendage to his dress; being at all times prepared to mount his horse at a moment's notice. Their cap or helmet is the most beautiful part of the costume, because it is becoming to every set of features. It adds considerably to their height, and gives, with the addition of whiskers, a military air to the most insignificant figure. They wear their hair short round the head, but not thin upon the crown. It is generally dark, thick, and quite straight. The cap is covered by a very soft and shining black wool. Some of them have civil and military distinctions of habit, wearing, in time of peace, instead of the jacket, a large frock without buttons. The sash is sometimes yellow, green, or red, though generally black, and they wear large military gloves. There is no nation in the world more neat with regard to dress; and, whether young or old, it seems to become them all. A quiet life seems altogether unsuited to their disposition. They loiter about, having no employment to interest them; and, passionately fond of war, seem distressed by the indolence of peace. The territory of the Cossacks, which is almost entirely pasture land, is divided into stanitzas, or cantons; for many stanitzas now contain more than a single village. To each of these a certain portion of land and fishery is allotted by government, and an allowance of corn from Voronetz, and northwards according to the returned number of Cossacks. They are free from all taxes; even from those of salt and distilleries. The distribution of the land to individuals in each stanitza is settled by the inhabitants and their Ataman. This Ataman was chosen by the people, and was both civil and military commander of the place; but he is now appointed by the crown, and greatly diminished in power; formerly the Ataman himself marched at the head of his stanitza: now he merely sends the required contingent, which is put under officers named by the crown. The allotment of land and fishery which each Cossack possesses may be let out by him to farm, and often is so. The Cossack, in consequence of his allowance, may be called upon to serve for any term not exceeding three years, in any part of the world, mounted, armed, and clothed, at his own expense, and making good any deficiencies that may occur. Food, hay, and camp equipage, are furnished by go-

vernment. Those who have served three years are not liable, at least not usually called upon, to serve abroad, except on particular emergencies. They serve, however, in the cordon along the Caucasus, and in the duties of the post and police. After twenty years they become free from all service, except the home duties of police, and assisting in the passage of corn barks over the shallows of the Don. After twenty-five years' service they are free entirely.'

The Cossacks and other inhabitants of Tcherchaskoy export fish, iron, kaviar, and a little wine: their merchants going to war, like the rest of their countrymen, and the greater number of their superior officers being merchants. In the capital they live a pleasant and agreeable life, and have often public amusements, as balls and parties of pleasure.

The Cossacks are said to be favorably contrasted with the other inhabitants of Russia as to cleanliness both in their persons and houses. The dress of the females differs from all the other costumes of Russia; and its magnificence is displayed in the ornaments of the cap. The hair of the married women is tucked under the cap, which is adorned with flowers, or covered with pearls and gold. The dress of the young women is elegant; a silk tunic with trowsers fastened with a girdle of solid silver, yellow boots, and an Indian handkerchief round the head. 'The common dress of men in Tcherchaskoy is a blue jacket, with a waistcoat and trowsers of white dimity; the latter so white and spotless that they seem always new. We never saw a Cossack in a dirty suit of clothes. Their hands, moreover, are always clean, their hair free from vermin, their teeth white, and their skin has a healthy and cleanly appearance. Polished in their manners, instructed in their minds, hospitable, generous, disinterested, humane, and tender to the poor, good husbands, good fathers, good wives, good mothers, virtuous daughters, valiant and dutiful sons; such are the natives of Tcherchaskoy. In conversation the Cossack is a gentleman; for he is well informed, free from prejudice, open, sincere, and honorable.'

The following account of the religious ceremonies of this people is from Dr. Clarke:— 'The morning after our arrival (at Axay) the general, who was commander-in-chief over all the district, including the town of Tcherchaskoy, the metropolis, came to Axay. The day was celebrated as a festival, in honor of the recovery of one of the emperor's children from the small pox inoculation. He sent us an invitation to dinner; and in the forenoon we accompanied him, with all the staff officers, to a public ceremony in the church. On entering this building we were much surprised at its internal magnificence. The screen of the altar was painted of a green color, and adorned with gold: before it was suspended a very large chandelier, filled with tapers of green wax. The screen, like the rest of the church, was covered with pictures: some of these were tolerably well executed, and all of them curious from their singularity and the extraordinary figures they served to represent. Here were no seats as in other Russian churches. The general placed himself against a wall on the

right hand facing the sacristy, standing on a step covered with a carpet, and raised about four inches from the level of the floor. We were directed to place ourselves by his right hand. The other Cossacks, whether in military uniform or national domestic habit, stood promiscuously in the body of the church. The priest, in very rich robes, with his back towards the people, was elevated upon a kind of throne, placed beneath the chandelier, and raised three steps from the platform, facing the great doors of the sacristy: these were shut. Over them was a picture of the Virgin; and before it, suspended by a string, were two wooden angels, joined back to back, like the figures of Janus, with candles in their hands. Whenever the doors of the sacristy were thrown open, the wooden angels were lowered before the centre of the entrance: here they whirled round and round in a most ludicrous manner. As the ceremony began, the priest, standing upon the throne, loosened a girdle bound across his breast and shoulders, whereon was an embroidered representation of the cross. This he held between his forefinger and thumb, repeating the service aloud, and touching his forehead with it, while the people sang responses, and were busied in crossing themselves. The vocal part of the ceremony was very solemn. The clear shrill notes of children placed among the choristers, rising to the dome of the church, and seeming to die away in the air, had a most pleasing effect. It is the same in all the Russian churches, and I know not any thing with which it can more justly be compared than the sounds produced by an Æolian harp. The words they use are Russian, and every where the same, 'Lord have mercy upon us!' We did not find them altered even among the Cossacks; it was still 'Ghospodi pomilui!' but thrilled

'In notes with many a winding bout
Of linked sweetness long drawn out.'

'At last there was an interval of silence, after this, other voices, uttering solemn airs, were heard within the sacristy. The doors were then thrown open, and a priest, having upon his head a silver chalice, containing the sacred bread, covered with a white napkin, made his appearance. He was preceded by others, who advanced with censers, dispersing incense over the doors of the sacristy, the pictures, the priest, the general, the officers, and the people. After some ceremonies, the bread was distributed among the congregation; then, those who came out of the sacristy having retired, its doors were again closed, and prayers were read for all the royal family; their names being enumerated in a tone of voice and manner exactly like that of a corporal or serjeant at a roll-call. Passages were also read from the Psalms; but the method of reading in all the Russian churches is beyond description. The young priests who officiate pride themselves upon mouthing it over with all possible expedition, so as to be unintelligible, even to Russians; striving to give to the whole lesson the appearance of a single word of numberless syllables. Some notion may be formed of their delivery, by hearing the criers in our

courts of justice administer the oath to a jury.

HISTORY.—Russia was anciently inhabited by various nations; such as Huns, Scythians, Sarmatians, Cimbri, &c., of whom an account is given under the various detached articles. The origin of the Russians themselves, though not prior to the ninth century, is covered with almost impenetrable obscurity; partly owing to the ignorance and barbarity of the people, and partly to the policy which long prevailed among them of discouraging all accounts of their origin, and enquiries into their ancient state and situation; of which we have a remarkable instance in the modern suppression of a work by professor Muller, entitled *De Originibus Gentis et Nominis Russorum*. According to several authors of credit, the Russians derived their origin from the Slavi or Slavonians, corruptly called the Sclavonians, who settled first along the banks of the Volga, and afterwards near the Danube, in Bulgaria and Hungary; but, being driven thence by the Romans (whom the Russians call Wolochers, or Wolotaners), they first removed to the banks of the Borysthenes or Dnieper, then overran Poland, and built the city of Kiow. Afterwards they extended their colonies farther north, to the rivers which run into the Ilmen Lake, and laid the foundation of the city of Novogorod. The towns of Smolensk and Tsernikow appear also to have been built by them. The most ancient inhabitants, not only of Russia, but of all Siberia to the borders of China, are called Tshudi: for professor Muller, who, on enquiring in those parts by whom the ancient buildings and sepulchral monuments he saw there were erected, was every where answered that they were the works of a people of this name. In the ninth century the Scandinavians, that is, the Danes, Norwegians, and Swedes, emigrated from the north, and, crossing the Baltic, went to seek habitations in Russia. They first subdued the Courlanders, Livonians, and Esthonians; and, extending their conquests still farther, exacted tribute from the Novogorodians, settled kings over them, and traded as far as Kiow, and even to Greece. These new invaders were called Waregers, which, according to Muller, signifies seafaring people; or, if derived from the old northern word war, it signifies warlike men. To these Waregers the name of Russes, or Russians, is thought by the most eminent authors to owe its origin; but the etymology of the word itself is uncertain. In these dark ages Russia was divided among a great number of petty princes, who made war upon each other with great ferocity and cruelty, so that the whole country was reduced to the utmost misery; when Gostomisel, a chief of the Novogorodians, pitying the unhappy fate of his countrymen, and seeing no other method of remedying their calamities, advised them to offer the government of their country to the Waregers. The proposal was readily accepted, and three princes of great abilities and valor were sent to govern them; namely, Ruric, Sincus, and Truwor, said to have been brothers. The first took up his residence at Ladoga, in the principality of Great Novogorod; the second at Bielo Osero, or the White Lake; and the third kept his court at Isborsk,



Drawn by J. Asheton

ASIA.

Scale in Miles
0 100 200 300 400 500 600



Engraved by J. Shury

or, according to others, at a small town then called Twertzog, in the principality of Pleskow. The three brothers reigned amicably, and made considerable additions to their dominions; all of which at length devolved on Ruric by the death of Sincus and Truwor.

RUSSIA, UNDER THE RACE OF RURIC.—Ruric became zealous for the strict administration of justice, and issued a command to all the boyars who possessed territories under him to exercise it in an exact and uniform manner. To this end it was necessary there should be general laws: and this leads us to conclude that letters were not entirely unknown in his dominions. The Russian empire continued to flourish till the end of the reign of Wolodomir, who ascended the throne in 976. Having settled the affairs of his empire, he demanded in marriage the princess Anne, sister to the Greek emperor Basilus Porphyrogenitus. His suit was granted, on condition that he should embrace Christianity. With this the Russian monarch complied; and that vast empire was thenceforward considered as belonging to the patriarchate of Constantinople. Wolodomir received the name of Basilus on the day on which he was baptised; and, according to the Russian annals, 20,000 of his subjects were baptised on the same day. Michael Syra, or Cyrus, a Greek, sent by Photius the patriarch of Constantinople, was accepted as metropolitan of the whole country. At the same time Wolodomir put away all his former wives and concubines, of whom he had upwards of 800, and by whom he had twelve sons, who were baptised on the same day with himself. The idols of paganism were now thrown down, churches and monasteries were erected, towns built, and the arts began to flourish. The Sclavonian letters were now first introduced into Russia; and Wolodomir sent missionaries to convert the Bulgarians; but only three or four of their princes came to him and were baptised. These events happened in the year 987. Wolodomir called the arts from Greece, cultivated them in the peaceable periods of his reign, and rewarded their professors with generosity, that he might dispel the clouds of ignorance which enveloped his country, call forth the genius of his countrymen, and render them happy. He also founded public schools, and enacted a law concerning the method of instructing youth, and directing the conduct of the masters appointed to instruct them. He died in 1008, and, contrary to all rules of sound policy, divided his empire among his twelve sons.

Wolodomir was no sooner dead than his sons commenced a civil war. Suantepolk, one of the brothers, having destroyed and seized upon the dominions of two others, was himself driven out by Jarislaus, and obliged to fly to Boleslaus king of Poland. This brought on a dreadful war betwixt the Poles and Russians, in which the former were victorious, and the latter lost a great part of their dominions, as related under **POLAND**. Jarislaus, finding himself unable to oppose the king of Poland, now turned his arms against the rest of his brothers, all of whom he dispossessed of their dominions, and seized them for himself. He next attacked the Cos-

sacks, over whom he gained several advantages: after which he ventured once more to try his fortune with Boleslaus; but in this second expedition he was attended with worse success than before, being now reduced to the condition of a vassal and tributary to the victorious monarch. However, in the reign of Miecizlaus II. the successor of Boleslaus, the Russians again shook off the yoke, and a lasting peace was confirmed by the marriage of Miecizlaus with the sister of Wolodomir. Jarislaus now continued to enjoy the empire quietly; and devoted a great part of his time, we are told, to study. He invited men of letters to his court, and caused many Greek books to be translated into the Russian language. In 1019 he gave the people of Novogorod several laws, under the title of Gramota Soudebniaia, to be observed in the courts of justice. These are the first laws that are known to have been reduced to writing in Russia; and what renders them remarkable is the conformity they have to those of the other northern nations. He founded a public school at Novogorod, where he maintained and educated 300 children at his own expense. His court was the most brilliant of the north, and furnished an asylum to unfortunate princes. He died in 1052.

Jarislaus fell into the same error which his father had committed, by dividing his dominions among his five sons. This produced a repetition of the bloody scenes which had been acted by the sons of Wolodomir; the Poles took advantage of the distracted state of affairs to make continual inroads and invasions; and the empire continued in the most deplorable situation till 1237, when it was totally subdued by the Tartars. Innumerable multitudes of these barbarians headed by their khan Batto, after ravaging great part of Poland and Silesia, broke suddenly into Russia, where they committed the greatest cruelties. Most of the Russian princes, among whom was the great duke George Sevolditz, were made prisoners, and racked to death; and, in short, none found mercy but such as acknowledged themselves the subjects of the Tartars. The imperious conqueror imposed upon the Russians every thing that is most mortifying in slavery; insisting that they should have no other princes than such as he approved of; that they should pay him yearly a tribute, to be brought by the sovereigns themselves on foot, who were to present it humbly to the Tartarian ambassador on horseback. They were also to prostrate themselves before the haughty Tartar; to offer him milk to drink, and, if any drops of it fell down, to lick them up: a singular mark of servility, which continued nearly 260 years.

George Sevolditz was succeeded by his brother Michael Sevolditz Zernigouski; who opposed the Tartars, but was defeated by them, and lost his life. He left three sons, Theodore, Alexander, and Andrew, whose wars with each other ended in the death of them all. Alexander, a son of Alexander, was then placed on the throne by the Tartars; and his son Daniel removed his court from Wolodomir to Moscow, where he first assumed the title of great duke of Wolo-

mir and Moscow. Daniel left two sons, Gregory and John; the former of whom, named Kalita, from a purse he used always to carry about him filled with money for the poor, ascended the throne; but he was soon assassinated by another prince named Demetrius, who was himself put to death for it by the Tartars; and John, likewise surnamed Kalita, was then made czar. This John left three sons, John, Simon, and Andrew; and the eldest of these, commonly called Ivan Ivanovitch in the barbarous language of Russia, i. e. John, the son of John, was made czar, with the approbation of the Tartars, on whom he was dependent. During these several reigns, which occupied upwards of 100 years, the miseries of a foreign yoke were aggravated by all the calamities of intestine discord and war; whilst the knights of Livonia, or brothers of the short sword, as they are sometimes called, a kind of military order of religious, on one side, and the Poles on the other, attacked Russia, and took several of its towns, and some considerable countries. The Tartars and Russians, whose interests were in this the same, often united to oppose their common enemies, but were generally worsted. The Livonians took Pleskow; and the Poles made themselves masters of Black Russia, the Ukraine, Podolia, and the city of Kiow. Casimir the Great, one of their kings, carried his conquests still farther. He claimed a part of Russia, in right of his relation to Boleslaus duke of Halitz, who died without issue, and took the duchies of Perzemyssia, Halitz, and Luckow, and the districts of Sanock, Lubackzow, and Trebowla; all which countries he made a province of Poland. See POLAND.

The newly conquered Russians were ill disposed to brook the government of the Poles, whose laws and customs were more contrary to their own than those of the Tartars had been. They joined the latter to rid themselves of the yoke, and assembled an army numerous enough to overwhelm all Poland, but destitute of valor and discipline. Casimir, undaunted by this deluge of barbarians, presented himself at the head of a few troops on the borders of the Vistula, and obliged his enemies to retire. Demetrius, the son of John, who commanded in Moscow, made frequent efforts to rid himself of the galling yoke. He defeated in several battles Mazy, khan of the Tartars; and, when conqueror, refused to pay them any tribute, and assumed the title of great duke of Muscovy. But the oppressors of the north returned in greater numbers than before; and Demetrius, at length overpowered, after a struggle of three years, perished with his whole army, which amounted to 240,000 men. His son, Basilus, revenged his father's death. He attacked his enemies, drove them out of his dominions, and conquered Bulgaria. He made an alliance with the Poles, whom he could not subdue; and even ceded to them a part of his country, on condition that they should help him to defend the rest against any new incursions of the Tartars. But this treaty was a weak barrier against ambition. The Russians found new enemies in their allies, and the Tartars soon returned. Basilus had a son

named Basilus, to whom the crown ought to have descended. But the father, suspecting his legitimacy, left it to his own brother Gregory, a man of a severe and tyrannical disposition, and therefore hated by the people, who asserted the son's right, and proclaimed him their sovereign. The Tartars took cognizance of the dispute, and determined it in favor of Basilus; upon which Gregory had recourse to arms, drove his nephew from Moscow to the principality of Uglitz, and usurped his throne. Upon the death of Gregory, Basilus returned to Moscow; but Andrew and Demetrius, sons of the late usurper, laid siege to that city, and obliged him to retire to the monastery of Troitz, where they took him prisoner, with his wife and son, and put out his eyes: hence the appellation of jemnoi, the blind. The subjects of this unfortunate prince, incensed at the cruel treatment he had received, forced the perpetrators of it to fly to Novogorod, and reinstated their lawful sovereign at Moscow, where he died. In the midst of this general confusion, John I., the son of Basilus, by his invincible spirit and refined policy, became both the conqueror and deliverer of his country, and laid the first foundation of its future grandeur.

Observing with indignation the narrow limits of his power at his accession to the throne, after the death of his father, he began immediately to revolve within himself the means of enlarging his dominions. Marriage seemed to him one of the best expedients he could begin with; and accordingly he demanded and obtained Maria, sister of Michael duke of Twer, whom he soon after deposed, under pretence of revenging the injuries done to his father, and added this duchy to his own territories of Moscow. Maria, by whom he had a son named John, who died before him, did not live long; and upon her death he married Sophia, daughter of Thomas Palæologus, who had been driven from Constantinople, and forced to take shelter at Rome, where the pope portioned this princess, in hopes of procuring thereby great advantage to the Romish religion; but his expectations were frustrated, Sophia being obliged to conform to the Greek church after her arrival in Russia. John doubtless hoped by this marriage to establish a claim to the empire of the east, to which her father was the next heir: and the Russians certainly owed to this alliance their deliverance from the Tartar yoke. Shocked at the servile homage exacted by those proud victors, her husband going to meet their ambassadors at some distance from the city, and standing to hear what they had to say, whilst they were at dinner, Sophia told him that she was surprised to find that she had married a servant to the Tartar. Nettled at this reproach, John feigned himself ill when the next deputation from the Tartars arrived, and under that pretence avoided a repetition of the stipulated humiliating ceremonial. Another circumstance equally displeasing to this princess was that the Tartars had, by agreement, within the walls of the palace at Moscow, houses, in which their ministers resided; to show their power, and at the same time watch the actions of the great duke. To get rid of these, a formal embassy

was sent to the Tartarian khan, to tell him, that Sophia having been favored with a vision from above, ordering her to build a temple in the place where those houses stood, her mind could not be at ease till she had fulfilled the divine command; and therefore his leave was desired to pull them down, and give his people others. The khan consented: the houses within the Kremlin were demolished; and, no new ones being built, the Tartar residents were obliged to leave Moscow, their prince being prevented from revenging this breach of promise, by a war he was engaged in with the Poles. John taking advantage of this circumstance, and having considerably increased his forces, disclaimed all subjection to the Tartars, attacked their dominions, and made himself master of Casan, where he was solemnly crowned with the diadem of that kingdom, which is still used for the coronation of the Russian sovereigns. The province of Permia, with great part of Lapland and Asiatic Bulgaria, soon submitted to him; and Great Novogorod was reduced by his generals after a seven years' siege, and yielded him 300 cart loads of gold and silver, and other valuable effects. Alexander Witold, waiwode of Lithuania, was in possession of this rich place, from which he had exacted for some years an annual tribute of 100,000 rubles, a prodigious sum for those days in that country. When it was taken by John Basilowitz, he, to secure his conquest, put it under the protection of the Poles, voluntarily rendered himself their tributary for it, and accepted a governor from the hand of their king Casimir III., a weak prince, from whom he had nothing to fear. The Novogorodians continued to enjoy all their privileges till about two years after; when John, ambitious of reigning without control, entered their city with a numerous retinue, under pretence of keeping to the Greek faith, he being accused of an intention to embrace the Romish religion; and, with the assistance of the archbishop Theophilus, stripped them of all their remaining riches. He then deposed the treacherous prelate, and established over Novogorod new magistrates, creatures of his own; thus destroying at once a noble city, which, had its liberties been protected, and its trade encouraged, might have proved to him an inexhaustible fund of wealth. All the north beheld with terror and astonishment the rapid increase of the victor's power: foreign nations courted his alliance; and the petty princes of Russia submitted to him without resistance. The Poles, however, complained loudly of this breach of faith in regard to Novogorod, and threatened revenge; upon which John, elated with his successes, with the riches he had amassed, and the weak condition of most of his neighbours, sent a body of troops into Lithuania, and soon became master of several of its towns. Casimir applied for assistance to Matthias king of Hungary; but was answered that his own soldiers were quite undisciplined; that his auxiliaries had lately mutinied for want of pay; and that it was impossible for him to raise a new army out of the neighbouring countries. The Polish monarch in this distress was obliged to purchase of John a cessation of arms for two years, during which the

Muscovite made new accessions to his dominions. The dukes of Servia, whose territories were about 500 miles in extent, had long thought themselves ill used by the Lithuanians on account of their religion, which was that of the Greek church; and wanted to withdraw from this subjection to Poland, and put themselves under the protection of Russia. An accident afforded them the wished for pretence. Their envoys, arriving at Wilna, desired admittance to the king's presence; which being refused one of them endeavoured to force his way in; but the porter shut the door rudely against him, and in so doing broke one of his fingers. The porter was immediately put to death; but the Servians, not satisfied, returned home in great fury, and prevailed upon their countrymen to submit to the Muscovites. Casimir made several attempts to recal them, but to no purpose. Matthias king of Hungary dying about this time, two of his sons, Uladislau, then king of Bohemia, and John Albert, contended for his vacant crown. Casimir wished to give it to the latter, whom he assisted to the utmost of his power; and, though he was in great want of men and money, he purchased a renewal of the truce with the Russians, and thereby gave John time to establish himself in his new acquisitions. Casimir died in 1492, and was succeeded on the throne of Poland by his son John Albert, who, totally disregarding the Russians, involved himself unnecessarily in a war with the brave Stephen duke of Moldavia; and, though he had at the same time both the Tartars and Turks against him, his propensity to pleasure rendered him so indolent that he not only did not attempt to molest John in any of his possessions, but concluded a peace with him on terms very advantageous to the latter; and even entered into a treaty, by which he stipulated not to assist the Lithuanians, though they had chosen his brother Alexander for their duke, in case the Russians should attack them. Alexander, to parry the inconveniences of this agreement, and to guard against the designs of his enemies, demanded in marriage John's daughter, Helena, by his second wife Sophia, and obtained her. The Lithuanians then expected tranquillity; but the ambitious czar, (for John had assumed that title since his conquest of Casan,) soon found a pretence to break with his new allies, by alleging that Polish Russia, as far as the river Berezina, had belonged to his ancestors, and therefore was his by right, and that Alexander had engaged to build a Greek church at Wilna for his Russian consort, which instead of doing, he had endeavoured to force the Polish Russians to become Roman Catholics. In consequence of this plea, he sent into the territories of his son-in-law, by different ways, three armies, which reduced several places, destroyed the country about Smolensko, and defeated the Lithuanian field marshal Ostrosky near the river Wedrasch, where he fell unawares into an ambush of the Russians. Alexander raised a new army of Silesians, Bohemians, and Moravians; but they came too late, the Russians having retired with their plunder. Elated by their success they invaded Livonia in 1502, with 130,000 men; but Walter Von Plettenberg, grand-master of the knights of the cross, with only 12,000 men,

gave them a total overthrow; killing 10,000 of them with little loss on his own side. John dispirited by this defeat, and being engaged in a war with the Tartars, the Poles, and the city of Pleskow, immediately despatched an embassy to Plettenberg, and concluded a truce with him for fifty years. At the same time he begged of that general to send to Moscow, that he might see him, one of the *iron* dragoons, as he called them, who had performed wonders in the late engagement. Von Plettenberg readily complied; and the czar rewarded the cuirassier's accomplishments with considerable honors and presents. Alexander had been elected king of Poland upon the death of his brother John Albert, in 1501, but the Poles refused to crown his consort Helena, because she adhered to the Greek religion. Provoked at this affront, and probably still more stimulated by ambition, John resolved again to try his fortune with them: and accordingly ordered his son Demetrius to march against Smolensko, and reduce that city. The young prince did what he could, but the vigorous resistance of the besieged, and the arrival of the king of Poland with a numerous army, obliged the Russians to raise the siege and return home; and the czar was glad to make a fresh truce with the Poles for six years, upon the easy terms of only returning the prisoners he had taken. Neither the czar nor Demetrius long survived this event; for Sophia, who had gained an absolute ascendancy over her husband, and wanted to give the sovereignty to her children, persuaded him to set aside and imprison his grandson Demetrius, the only child of the late John, whom he had by his first wife Maria, and declare her eldest son Gabriel his successor. The czar blindly followed the iniquitous advice; but shortly after, finding his end approach, he sent for young Demetrius, expressed great remorse for his barbarity, and on his death-bed declared him his lawful successor. He died in November 1505, after a reign of fifty-five years; leaving behind him an immense territory, chiefly of his own acquiring.

The czar was no sooner dead than his son Gabriel, at the instigation of his mother Sophia, put an end to the life of the young Demetrius, by confining him in prison, where he perished with hunger and cold; after which Gabriel was crowned by the name of Basilius, and took the title of czar. On his accession he expected that the Poles would be in confusion about the election of a new sovereign; but, being disappointed by their unanimous election of Sigismund I. (see *POLAND*), he sent an army into Lithuania, and laid siege to Smolensko. It made a brave resistance, till news arrived that the crown troops of Poland were coming to their assistance, with 80,000 Crim Tartars; on which the Russians retreated with precipitation, but were quickly followed by the Poles, who reduced the czar to submit to their own terms. Basilius remained quiet for some time; after which he, with a numerous army, encamped near Pleskow, where the Poles, presuming on the late treaty, received him as a friend. But the Muscovite priests, of the Greek church, preaching up that it would be advantageous to have a sovereign of their own re-

ligion, brought them to such a height of enthusiasm that they murdered their magistrates, and opened their gates to the czar, who made them all slaves, banished them to different parts, and filled the city with Muscovites, to secure his conquest. Soon after he took Smolensko; and the Swedes, alarmed at his rapid progress, desired a prolongation of the truce for sixty years longer. The duchy of Lithuania was the great object of Basilius; to accomplish which he ordered John Czeladin, a man enterprising even to rashness, to march thither with 80,000 men. The army of the Poles did not exceed 35,000 men, but was commanded by a most experienced general. The two armies met on the opposite banks of the Dneiper, near Orsova, and the Poles passed that river in sight of their enemies. The Lithuanians began the attack, but were repulsed by the Russians, who, imprudently following them, became at once exposed to the full fire of the enemy's artillery. The Polish cavalry then rushed in among them and made dreadful havoc. Those who endeavoured to fly were drowned in the Dneiper; and the rest, including Czeladin himself, were made slaves. Basilius was at Smolensko, when he received the news of this dreadful defeat; on which he immediately fled to Moscow where his danger increased daily. The Crim Tartars ravaged his dominions, and the emperor Maximilian, with whom he had been in alliance, deserted him; his troops were defeated in Livonia, where he was obliged to submit to a peace on dishonorable terms. In the mean time, the king of Poland stirred up the Tartars to invade Russia, while the Russian monarch endeavoured to excite them to an invasion of Poland. These barbarians, equally treacherous to both parties, first invaded and ravaged Podolia in Poland; and then invaded Russia, defeated the armies of the czar in 1521, and quickly made themselves masters of Moscow. An army which had been sent to oppose their progress was defeated near the Occa; and the czar's brother Andrew, who commanded it, was the first who fled. Basilius with great difficulty made his way to Novogorod; but so terrified that he hid himself by the way under a haystack, to avoid a party of the enemy. The Tartars, however, soon obliged him to sign a writing, by which he acknowledged himself their vassal, and promised to pay them a tribute of so much a head for every one of his subjects. Besides this, Machmet Gerei, the commander of the Tartars, caused his own statue to be set up at Moscow, as a mark of his sovereignty; compelled Basilius to return to his capital, to bring thither in person the first payment of this tribute, and, as a token of his submission, to prostrate himself before his statue. Machmet Gerei then left Moscow, and returned home with an immense booty, and upwards of 80,000 prisoners, who were made slaves, and sold like cattle to the Turks. In his way back he attempted to take the city of Rezan; but was repulsed with considerable loss by John Kowen, who commanded in that place for the Russians. Here the Tartar general narrowly escaped with his life, his coat being shot through with a musket ball; and the Muscovites pulled down his statue, and broke it to pieces as soon as the con-

querors had left them. Basilius died in 1533, and was succeeded by his son John Basiliowitz II., an infant of five years of age.

During the minority of John II. his two uncles Andrew and George endeavoured to deprive him of the crown; but their attempts were defeated by the activity of his guardians. The Poles also commenced hostilities, but made little progress. John, as soon as he entered his nineteenth year, showed a desire to rescue his subjects out of that desperate state of ignorance and barbarism in which they had been hitherto immersed. He sent a splendid embassy to the emperor Charles V., who was then at Augsburg, to desire the renewal of a treaty of friendship which had been concluded with his father Maximilian, and offering to enter into a league with him against the Turks, as enemies to the Christian religion; for his farther information in which, particularly in regard to the doctrine and ceremonies of the Latin church, he requested that his ambassador might be allowed to send from Germany to Russia proper priests to instruct him and his subjects. With these he likewise desired to have some wise and experienced statesmen, able to civilize the wild people under his government; and also, the better to help to polish them, he requested that he would send mechanics and artists of every kind; in return for all which he offered to furnish two tons of gold yearly, for twenty years together, to be employed in the war against the Turks. The emperor readily agreed, and the Russian ambassador accordingly engaged upwards of 300 German artists, to repair to Lubec, and proceed thence to Livonia. But the Lubeckers, who were very powerful at that time, and aimed at nothing less than the engrossing of the whole commerce of the north, stopped them, and represented strongly to the emperor, in the name of all the merchants in Livonia, the dangerous consequence of thus affording instructions to the Russians, who would soon avail themselves of it to ruin their trade, and distress the subjects of his imperial majesty. The workmen and others intended for Russia were easily prevailed upon to return home; and the czar's ambassador was arrested upon his arrival at Lubec, and imprisoned there at the suit of the Livonians: however he escaped soon after; and the czar, though provoked at the Lubeckers, was obliged to suspend his resentment. His first enterprise was against the Tartars at Casan, who had hitherto been such formidable enemies. In this he was attended with success: the whole territory was conquered in seven years; but the capital, Casan, being well fortified and bravely defended, made such resistance as quite disheartened the besiegers. John, hearing of this, hastened to them with considerable reinforcement, and exhorted them to push the siege with redoubled vigor. But the greater part, deaf to his remonstrances, proceeded to mutiny, and fell upon their comrades who were for continuing the war. John, alarmed at this, rushed in among the combatants, and with difficulty parted them; but neither menaces nor entreaties, nor even a promise of the whole plunder of the city if they took it, could prevail on them to continue the war. Their rage at last prompted

them to threaten the life of their sovereign, who was obliged to make the best of his way to Moscow; and the mutineers instantly returned thither. John, though justly incensed at this insolence, took a method of punishing it which does honor to his humanity. Having selected a guard of 2000 of his best troops, he ordered a great feast, to which he invited his principal nobles and officers, to each of whom, according to the Russian custom, he gave very rich garments. The chief of the seditious were clothed in black velvet; and after the dinner was over he made a speech to the whole company, setting forth the behaviour of his troops before Casan, their contempt of his commands, and their conspiracy against his life: to which he added that he was doubly sorry to find the instigators of such wickedness among those who were styled, and who ought to be, his faithful counsellors; and that those who knew themselves to be guilty of such atrocious wickedness could not do better than voluntarily to submit themselves to his mercy. Upon this most of them immediately threw themselves at his feet, and implored his pardon. Some of the most criminal were executed, but the rest were only imprisoned. Immediately after this John marched with a fresh army to reinvest Casan, before the Tartars had time to recover themselves. The besieged still made an obstinate defence, and the Russians again began to be dispirited; upon which the czar ordered his pioneers to undermine the walls of the citadel, a practice then unknown to the Tartars. This work being completed, he directed his priests to read a solemn mass to the whole army, at the head of which he afterwards spent some time in prayer, and then ordered fire to be set to the powder, which acted so effectually that great part of the foundation was immediately blown up, and the Muscovites, rushing into the city, slaughtered all before them; while the astonished Tartars, crowding out at the opposite gate, crossed the Casanka, and fled into the forests. Among the prisoners taken on this occasion were Simeon king of Casan, with his queen; both of whom were sent to Moscow, where they were treated with the utmost civility and respect. Encouraged by this success, John invaded the country of Astracan, the capital of which he soon reduced; after which he prepared to revenge himself on the Livonians for their behaviour in stopping the German artists. John Basiliowitz I. had concluded a truce with this people for fifty years; which now being expired, Iodocus, archbishop of Dorpt and canon of Munster, sensible of the danger to which he was exposed by the vicinity of the Russians, requested the czar to give him a prolongation of the truce. John offered him the alternative of a truce for five years, upon payment of one-fifth of a ducat for each person in Dorpt; or for twenty years, on condition that he and the Livonians should rebuild all the Russian churches which had been demolished in their territories, and allow his subjects the free exercise of their religion. Iodocus evaded an answer, but at last levied a considerable sum, and fled with it to Munster, where he resigned his prebend and married. His successor, named Herman and

the deputies from Livonia, accepted of conditions, and swore to observe them; with this additional clause, that the priests of the Romish communion should be exempted from paying tribute. But, while the Livonians swore to these terms, they were at that very time in treaty with Gustavus Vasa, king of Sweden, to join them in attacking Russia. Gustavus complied with their desires; upon which John invaded Finland. Gustavus advanced against him with a powerful army; but, as neither the Poles nor Livonians gave him any assistance, he was obliged to conclude a treaty with the czar, and soon after to evacuate the country. Finland was then governed by William of Furstenberg, grand master of the Livonian knights and the archbishop of Riga; between whom a quarrel happened about this time, which facilitated John's designs. The archbishop, after attempting to set himself above the grand master even in civil affairs, and to persecute those who adhered to the confession of Augsburg, chose for his coadjutor in the archbishopric of Riga Christopher duke of Mecklenburg. From the abilities and haughty temper of this lord the Livonian knights had reason to fear the worst; and the step was, besides, unprecedented, and contrary to the established laws. These discontents were heightened by letters intercepted from the archbishop to his brother Albert, duke of Prussia, inviting this last to suppress the order of Livonian knights, and to secularise their possessions; so that an open war broke out among the contending parties, and the archbishop was seized and made prisoner. He was, however, soon released, through the mediation of the emperor of Germany and other potentates, backed by the powerful preparations of the Prussians to avenge his cause; but in the mean time, the strength of their country being totally exhausted, the Livonians were obliged, instead of preparing for war, to sue to the czar for peace. John replied that he did not believe their intentions to be sincere while they kept 6000 Germans in pay; and, therefore, if they meant to treat of peace, they must begin with dismissing these troops. The Livonians did as they were ordered; and in 1558 an army of 100,000 Russians entered the district of Dorpt, and laid every thing waste with the most shocking cruelty. After this they entered the territories of Riga, where they behaved with equal inhumanity; and, having at last satiated themselves with blood and treasure, they retired with an immense booty and a great number of prisoners. The Livonians, now convinced of their own folly in provoking the rage of the Russians, sent ambassadors to sue for peace. These offered the czar a present of 30,000 ducats, and prevailed upon him to grant their nation a truce for four months, during which they returned home to get the money. But in this interval the Livonian governor of the city of Nerva fired some cannon against Ivanogorod or Russian Nerva, on the opposite side of the river, and killed several of the czar's subjects who were quite unarmed. The Russians, out of regard to the truce, did not attempt to make reprisals, but immediately acquainted John with it; which so incensed the czar that, when the Livonian ambassadors arrived, he told them he looked upon

their nation to be a set of perjured wretches, who had renounced all honesty; that they might go back with their money and proposals, and let their countrymen know that his vengeance would soon overtake them. The ambassadors were scarcely arrived in Livonia when an army of 300,000 Russians entered the district of Nerva, under Peter Sisegaledrii, who had been a famous pirate in the Euxine Sea. He took Nerva in nine days, and soon made himself master of Dorpt, where he found immense treasures. Several other garrisons, terrified by the approach of such numbers, quitted their posts; so that the Russians became masters of a great part of Livonia almost without opposition. At last Gothard Kettler, grand master of the knights of Livonia, entreated Christian III. king of Denmark, to take Riga, Revel, and the countries of Garmland, Wirrland, and Esthonia, under his protection; but, from his advanced age, he declined the offer, though he assisted them with money and powder, of which they stood greatly in need. Having then applied to the emperor of Germany and the court of Sweden, Kettler put himself under the protection of the Poles, who had hitherto been such formidable enemies to the Russians. In the mean time the latter pursued their conquests; took the city of Marienburg, laid waste the district of Riga, destroyed Garmland, and penetrated to the very gates of Revel. Felin, though provided with the best artillery in the whole country, became theirs by the treachery of its garrison; and William of Furstenberg, the old grand master, was taken, and ended his days in a prison at Moscow. The distracted situation of the Livonian affairs now reduced the bishop of Oesal to sell his bishopric to Ferdinand king of Denmark, who exchanged it with his brother Magnus for a part of Holstein. The districts of Revel and Esthonia put themselves under the protection of Sweden; and the grand master, finding himself deserted by all, suppressed the order of which he was the chief, and accepted of the duchy of Courland, which he held as a fief of the crown of Poland. The czar saw with pleasure the division of Livonia between the Swedes and Poles, which, he rightly judged, would produce quarrels between the two nations, and thus give him the fairer opportunity of seizing the whole. In 1564 the Swedes offered him their assistance against the Poles; but he, judging himself strong enough without them, attacked the Poles with his own forces, but was twice defeated, which checked his farther operations in Livonia. In 1569 he entered into a treaty of commerce with England, captain Richard Chancellor having recently discovered a passage to Archangel in Russia, through the White Sea, by which that empire could be supplied with foreign goods, without the assistance of Poland or Livonia. To the discoverers of this new passage John granted many exclusive privileges; and after the death of queen Mary I. renewed the alliance with queen Elizabeth, which has been continued without interruption ever since. In the mean time, however, a prodigious army of Turks and Tartars entered Muscovy, with a design to subdue the whole country; but Zerebrinov, the czar's general, having attacked them in a defile, put them to flight with great slaughter. They then

retired towards the mouth of the Volga; but, being closely pursued by the Russians and Tartars, they were again defeated, and forced to fly towards Azof on the Black Sea, which they found ruined by the blowing up of a powder magazine. The Russians then attacked their ships there, took some, and sunk the rest; by which means almost the whole army perished either with hunger or sword. From this time the empire of Russia became so formidable that none of the neighbouring nations could expect to make a conquest of it. The Poles and Swedes indeed continued to be very formidable; and, by the instigation of the former, the Crim Tartars, in 1571, again invaded the country with an army of 70,000 men. The Russians, who might have prevented their passing the Volga, retired before them till they came within eighteen miles of Moscow, where they were totally defeated. The czar no sooner heard this news than he retired with his most valuable effects to a well fortified cloister; upon which the Tartars entered the city, plundered it, and set fire to several churches. A violent storm of wind soon spread the flames all over the city, which was totally burnt in six hours, though its circumference was upwards of forty miles. The fire likewise communicated itself to a powder magazine at some distance from the city; by which accident upwards of fifty roods of the city wall, with all the buildings upon it, were destroyed; and, according to the best historians, upwards of 120,000 citizens were burnt or buried in the ruins, besides women, children, and foreigners. The castle, however, which was strongly fortified, could not be taken; and the Tartars hearing that a formidable army was coming against them under John Magnus, duke of Holstein, whom John had made king of Livonia, thought proper to retire. The war, nevertheless, continued with the Poles and Swedes; and the czar, being defeated by the latter after some trifling success, was reduced to the necessity of suing for peace. But, the negotiations being somehow or other broken off, the war was renewed with vigor. The Livonians, Poles, and Swedes, having united against the Russians, gained great advantages over them; and in 1579 Stephen Batori, then king of Poland, levied an army to invade Russia, and regain all that Poland had formerly claimed, which indeed was little less than the whole empire. As the Poles understood the art of war much better than the Russians, John found his undisciplined multitudes unable to cope with the regular forces of his enemies; and their conquests were so rapid that he was soon obliged to sue for peace, which, however, was not granted: and the number of enemies which now attacked Russia might probably have conquered it entirely, had not the allies grown jealous of each other. The consequence was that, in 1582, a peace was concluded with the Poles, in which the Swedes were not comprehended. However the Swedes, finding themselves unable to effect any thing of moment after the desertion of their allies, concluded a truce; after which the czar, having been worsted in an engagement with the Tartars, died in 1548. This great prince was succeeded by his son Theodore; a man of such weak under-

standing that he was totally unfit for government. Under him, therefore, the Russian affairs fell into confusion; and Boris Gudenov, a nobleman whose sister Theodore had married, assumed all the authority. At last he resolved to usurp the throne. For this purpose he caused the czar's brother Demetrius, who was only nine years of age, to be assassinated, and afterwards caused the czar also to be murdered. In 1597 the czar himself was taken ill and died, being poisoned by Gudenov; of which indeed the czarina was so well convinced that she would never afterwards speak to her brother. With Theodore ended the line of Ruric, who had governed the empire of Russia for above 700 years.

II. RUSSIA, TILL THE ELECTION OF THEODORE III. OF THE HOUSE OF ROMANO V.—Boris, who in reality was possessed of all the power, and would indeed have suffered nobody else to reign, artfully pretended to be unwilling to accept the crown, till compelled to it by the intreaties of the people; and even then he put the acceptance of it on the issue of an expedition which he was about to undertake against the Tartars. The truth of the matter, however, was, that no Tartar army was in the field, nor had Boris any intention of invading that country; but by this pretence he assembled an army of 500,000 men, which he thought the most effectual method of securing himself in his new dignity. Boris, in 1600, concluded a peace with the Poles, but resolved to continue the war against the Swedes; however, being disappointed in some of his attempts against that nation, he entered into an alliance with the Swedish monarch, and even proposed a match between the king's brother and his daughter. But, while these things were in agitation, the city of Moscow was desolated by one of the most dreadful famines recorded in history. Thousands of people lay in the streets and highways, with their mouths full of hay, straw, or even the most filthy things, which they had been attempting to eat. In many houses the fattest person was killed, in order to serve for food to the rest. Parents were said to have eaten their children, and children their parents, or to have sold them to buy bread. One author, Petrius, says that he himself saw a woman bite several pieces out of a child's arm as she was carrying it along: and Margaret relates that four women, having ordered a peasant to come to one of their houses, under pretence of paying him for some wood, killed and ate both him and his horse. This dreadful calamity lasted three years, notwithstanding all the means which Boris could use to alleviate it; and in this time upwards of 500,000 people perished in the city. In 1604 a young man appeared, who pretended to be Demetrius, whom Boris had caused to be murdered. Being supported by the Poles, he proved very troublesome to Boris all his lifetime; and after his death deprived his son Theodore II., the new czar, of the empire; after which he ascended the throne himself, and married a Polish princess. However he held the empire but a short time, being killed in an insurrection of his subjects; and the unhappy czarina was sent prisoner to Jaroslaw. After the death of Demetrius, Zuski, who had conspired against him, was chosen czar; but rebellions

continually taking place, and the empire being perpetually harassed by the Poles and Swedes, in 1610 Zuski was deposed, and Uladislaus son of Sigismund king of Poland was elected. However, the Poles representing to Sigismund that it would be more glorious for him to be the conqueror of Russia than only the father of its sovereign, he carried on the war with such fury that the Russians in despair fell upon the Poles, who resided in great numbers at Moscow. The Poles being well armed, and mostly soldiers, had greatly the advantage; however, they were on the point of being oppressed by numbers, when they fell upon the most cruel method of insuring their success that could be devised. This was by setting fire to the city in several places; and, while the distressed Russians ran to save their families, the Poles fell upon them sword in hand. In this confusion upwards of 100,000 people perished; but the event was that the Poles were finally driven out, and lost all footing in Russia. The expulsion of the Poles was succeeded by the election of Theodore Romanov, a young nobleman of seventeen years of age, whose posterity still continue to enjoy the sovereignty. He died in 1646, and was succeeded by his son Alexis.

III. RUSSIA UNDER THE HOUSE OF ROMANOV.

—The reign of Alexis was almost one continued scene of tumult and confusion, the empire being harassed on all sides by external enemies, and perpetually disturbed by internal commotions. The sources of these commotions arose from the multiplicity and inconsistency of the laws, and the jarring claims of the border nobles. An eman- noy ukase, or personal order of the sovereign, signed with his own hand, is to this day the law of Russia. These edicts are as various as the opinions, prejudices, passions, or whims of men; and in the days of Alexis they produced endless contentions. To remedy this evil, he made a selection from all the edicts of his predecessors, of such as had been familiarly current for 100 years; presuming that those either were founded in natural justice, or during so long a currency had formed the minds of the people to consider them as just. This digest, which he declared to be the common law of Russia, and which is prefaced by a sort of institute, is the standard law book at this day, known by the title of the *Ulogenié* or *Selection*; and all edicts prior to it were declared to be obsolete. He soon made his *Novellie*, however, more bulky than the *Ulogenié*; and the additions by his successors are beyond enumeration. This was undoubtedly a great and useful work; but Alexis performed another still greater. Though there are many courts of judicature, in this widely extended empire, the emperor has always been lord paramount, and could take a cause from any court immediately before himself. But as several of the old nobles had the remains of principalities in their families, and held their own courts, the sovereign or his ministers, at a distance up the country, frequently found it difficult to bring a culprit out of one of these hereditary feudal jurisdictions, and try him by the laws of the empire. This was a very disagreeable limitation of imperial power; and the more so, that some families claimed even a right to repledge. A

lucky opportunity offered of settling this dispute; and Alexis embraced it with great ability. Some families on the old frontiers were taxed with their defence, for which they were obliged to keep regiments on foot; and, as they were but scantily indemnified by the state, it sometimes required the exertion of authority to make them keep up their levies. When the frontiers, by the conquest of Casan, were far extended, those gentlemen found the regiments no longer burdensome, because, by the help of false musters, the former scanty allowance much more than reimbursed them for the expense of the establishment. The consequence was that disputes arose among them about the right of guarding certain districts, and law-suits were necessary to settle their respective claims. These were tedious and intricate. One claimant showed the order of the court, issued a century or two back to his ancestor, for the marching of his men, as a proof that the right was then in his family. His opponent proved that his ancestors had been the real lords of the marches; but that, on account of their negligence, the court had issued an eman- noy ukase to the other, only at that particular period. The emperor ordered all the family archives to be brought to Moscow, and all documents on both sides to be collected. A time was set for the examination; a fine wooden court-house was built; every paper was lodged under a good guard; the day was appointed when the court should be opened and the claims heard; but that morning the house, with all its contents, was in two hours consumed by fire. The emperor then said, 'Gentlemen, henceforward your ranks, your privileges, and your courts, are the nation's, and the nation will guard itself. Your archives are unfortunately lost, but those of the nation remain. I am the keeper, and it is my duty to administer justice for all and to all. Your ranks are not private, but national, attached to the services you are actually performing. Henceforward colonel Buturlin (a private gentleman) ranks before captain Viázemsky (an old prince).' This constitution, which established the different ranks of Russia, as they remain to this day, is by Voltaire ascribed to Peter; but it was the work of Alexis, who, when the situation of himself and his country is considered, must be allowed to have been a great and a good man. He died in 1676.

Alexis was succeeded by his son Theodore IV., who after an excellent reign, during the whole of which he exerted himself to the utmost for the good of his subjects, died in 1682, having appointed his brother Peter I., commonly called the Great, his successor. See *PETER I.* Theodore had another brother named John; but, as he was subject to the falling sickness, the czar had preferred Peter, though very young, to the succession. But through the intrigues of the princess Sophia, sister to Theodore, a strong party was formed in favor of John; and soon after both John and Peter were proclaimed sovereigns of Russia under the administration of Sophia, who was declared regent. But the princess regent conspired against Peter, and, being discovered, was confined for life in a convent. From this time also John continued to be only a nominal sovereign till his death, which

happened in 1696, Peter continuing to engross all the power. To this emperor Russia has long ascribed the whole of her present greatness. The private character of Peter, however, seems to have been very indifferent. Though he had been married in his eighteenth year to a young and beautiful princess, he was not restrained by the vows of wedlock; and was besides so much addicted to the pleasures of the table, the prevailing vice of his country, that nobody could have imagined him capable of effecting the reformation which he accomplished. In spite of all disadvantages, however, he applied himself to the military art and to civil government. He had also a very singular dread of water, which, had it not been conquered, would have rendered him for ever incapable of accomplishing what he afterwards did. When he was about five years of age, his mother went with him in a coach in the spring season; and passing over a dam where there was a considerable water-fall, whilst he lay asleep in her lap, he was so suddenly awaked and frightened by the rushing of the water, that it brought a fever upon him; and after his recovery he retained such a dread of that element that he could not bear to see any standing water, much less to hear a running stream. This aversion, however, he conquered by jumping into water; and afterwards became fond of that element. Being ashamed of the ignorance in which he had been brought up, he learned almost of himself, and without a master, enough of the High and Low Dutch languages to speak and write intelligibly in both. He looked upon the Germans and Dutch as the most civilised nations; because the former had already erected some of those arts and manufactures in Moscow which he was desirous of spreading throughout his empire, and the latter excelled in navigation. During the administration of the princess Sophia, he had formed a design of establishing a maritime power in Russia; which he accomplished by the means recorded in our memoir of him. Having reformed his army, and introduced new discipline, he led his troops against the Turks; from whom, in 1696, he took the fortress of Azof; and had the satisfaction to see his fleet defeat that of the enemy. On his return to Moscow were struck the first medals which had ever appeared in Russia. The legend was, 'PETER THE FIRST, the august emperor of Russia.' On the reverse was Azof, with these words 'Victorious by fire and water.' Notwithstanding this success, however, Peter was much chagrined at having his ships all built by foreigners; having besides as great an inclination to have a harbour on the Baltic as on the Euxine. These considerations determined him to send some of the young nobility of his empire into foreign countries, where they might improve. In 1697 he sent sixty young Russians into Italy, most of them to Venice, and the rest to Leghorn, to learn the method of constructing their galleys. Forty more were sent to Holland, to be instructed in building and working large ships; others to Germany, to serve in the land forces, and to learn military discipline. At last he resolved to travel through different countries in person, that he might have the opportunity of profiting by his

own observation and experience. Of this journey we have given a short account in our memoir of him; and shall only add that, in executing his great design, he lived and worked like a common carpenter. He labored hard at the forges, rope-yards, and mills for sawing timber, manufacturing of paper, wire-drawing, &c. In acquiring the art of a carpenter he began with purchasing a boat, to which he made a mast himself, and by degrees executed every part of the construction of a ship. Peter went also from Sweden to Amsterdam, to attend the lectures of the celebrated Ruysch on anatomy. He likewise attended the lectures of burgo-master Witsen on natural philosophy. From this place he went to Utrecht, to visit king William III. of England; and on his return sent to Archangel a sixty gun ship, in the building of which he had assisted with his own hands. In 1698 he went to England, where he employed himself as he had done in Holland, and perfected himself in the art of ship-building; and, having engaged a great number of artificers, returned with them to Holland: whence he set out for Vienna, where he visited the emperor; and was on the point of setting out for Venice, to finish his improvements, when he was informed of a rebellion having broken out in his dominions. This was occasioned by the superstition and obstinacy of the Russians, who, having an almost invincible attachment to their old ignorance and barbarism, had resolved to dethrone the czar on account of his innovations. But Peter, arriving unexpectedly at Moscow, quickly put an end to their machinations, and took a most severe revenge on those who had been guilty. Having then made great reformations in every part of the empire, in 1700 he entered into a league with the kings of Denmark and Poland against Charles XII. of Sweden. The particulars of this famous war are related under SWEDEN. Here we shall only observe that, from the conclusion of this war, Sweden ceased not only to be a formidable enemy to Russia, but even lost its political consequence in a great measure altogether. Peter applied himself to the cultivation of commerce, arts, and sciences, with equal assiduity as to war; and he made such acquisition of dominion, even in Europe itself, that he may be said, at the time of his death, to have been the most powerful prince of his age. He was unfortunate in the Czarovitz his eldest son, whom he contrived to get rid of by the forms of justice, and then ordered his wife Catharine to be crowned with the same magnificent ceremonies as if she had been a Greek empress, and to be recognised as his successor; which she accordingly was, and mounted the Russian throne upon the decease of her husband.

Catharine I. succeeded her husband in 1725, and carried into execution many of the great designs which he had left unfinished. See CATHARINE. She died after a short but glorious reign, in 1727, and was succeeded by Peter II. a minor, son to the Czarovitz Alexis. Many domestic revolutions happened in Russia during the short reign of this prince; but none was more remarkable than the disgrace and exile of prince Menzikoff, the favorite general in the two late

New Code of Laws, &c., and is a very respectable work, which does honor to the empress, by whom it was undoubtedly composed, if she had seriously intended to put it in execution. But the most consequential of the deputies were privately instructed to be very cautious, and informed that carriages and guards were ready for Siberia. There was a grand procession at their presentation. Each had the honor of kissing her majesty's hand and receiving a gold medal. They met in form to recognise one another, then parted, and have never met since. The New Code melted away without notice; and the princess Dashkoff was handsomely given to understand that her counsels were no longer necessary, and that she could not do better than take the amusement of the tour of Europe. She was liberally supplied, visited London, Edinburgh, and most other capitals in Europe; accompanied by one of the young princes, said to have been Paul, afterwards emperor; and was treated with great kindness, but kept amused with something very different from legislation. In the mean time, many patriotic things were really done. Taxes were frequently remitted where they were burdensome. Every person was declared free who had served government without pay for two years. No man was allowed to send boors from his cultivated estates to his mines in Siberia, nor to any distant estates, but for the purposes of agriculture. Many colonies of German peasants were in various places settled on the crown-lands, to teach the natives the management of the dairy: a branch of rural economy of which the Russians were till that period so completely ignorant that there is not in their language an appropriated word for butter, or cheese, or even for cream. The Russians hoped to be likewise instructed in agriculture; but the colonists were poor and ignorant; and this part of the project came to nothing, like the great national schools. Other improvements, however, took place in favor of commerce; for all barriers were removed, and goods suffered to pass through the empire duty-free. The empress with great liberality encouraged the introduction of arts and manufactures. An academy was instituted of sculpture, painting, architecture, &c., a magnificent and elegant building was erected for it, and many élèves supported in it at the expense of the crown. Several very promising youths have been educated in that academy; but as the Russians are childish fond of finery, and cannot be persuaded that any thing fine was ever done by their own countrymen, the students are all, on leaving the academy, suffered to starve. The empress, who had a very just taste in architecture, designed several buildings equally useful and ornamental to her capital (see NEVA and PETERSBURG); and, while she thus diligently cultivated the arts of peace, she did not neglect those of war. She put her fleets on the most respectable footing, and procured a number of British officers to instruct her seamen in the science of naval tactics. By land, her successes against the Turks, the Swedes, and the Poles (see POLAND, SWEDEN, and TURKEY), compel us to believe that her troops were better disciplined, and her generals more skilful, than

any whom the greatest of her predecessors could bring into the field; and the empire of Russia, though the people are but just emerging from a state of barbarism, is at this day one of the most powerful in Europe. But the glory of Catharine's reign is stained by injustice and cruelty. More horrible massacres than those of Ismail and Prague, by her general Suwarrow, were not committed by the most savage troops in the most barbarous ages. Of her character, both public and private, we have given a general sketch under the article CATHARINE II. About fifteen different princes and courtiers successively gratified her desires. Among these were Alexis and Gregory Orloffs, brothers; prince Potemkin; prince Lauskoi; the two Zubows, brothers; Vassiltchikoff, a lieutenant of the guards; count Panin; and several others. The first of her lovers was Stanislaus Augustus, count Poniatowski, with whom she had formed a connexion even in her husband's life time; and whom she afterwards rewarded with the kingdom of Poland, for it was by her influence, and the presence of her troops, that the election was over-awed in his favor, on the 7th of September 1764; though she afterwards deprived him of his crown and dominions, when she found him no longer pliable, but willing to give the Poles a free constitution. While she was thus disposing of foreign kingdoms, she was under continual dread of being thrown, by some sudden plot or revolution, from the throne she had usurped. To prevent this, she hesitated at no new crimes. She procured the private assassination of prince John, whom her husband Peter III. had generously liberated from prison. She also, by the most treacherous means, wherein prince Alexis Orloff was her villainous agent, shut up the princess Tarrakanoff, a daughter of the empress Elizabeth, by Alexis Razumoffsky (who had been privately married to her), in a fortress, where she was never more heard of. Such were the means she used to get rid of all who had any claim to the throne. Yet, with all her crimes and vices, it must be allowed that she did more to civilize her barbarous subjects than even Peter the Great. In Petersburg alone she founded thirty-one seminaries, wherein 6800 children of both sexes were educated at the annual expense of 754,335 rubles. She superintended the education of her own grandchildren, and even wrote books for their instruction; while jealousy led her to keep their father, her own son Paul, at a distance from court and from all opportunity of improvement. But her greatest effort for the improvement of science was in 1767, when she employed the celebrated Drs. Pallas, Gmelin, Euler, and several other men very eminent in the republic of letters, to travel through her vast dominions, to determine the geography of her extensive territories, the position of the chief towns, their temperature, soil, and productions; and the manners of the inhabitants, &c. This survey of her empire must immortalise her name in science, when her crimes are forgotten. In the coalition against the French republic Catharine promised much, but did nothing, except granting refuge to French emigrants, and sending a squadron of crazy ships to co-operate with the British navy, which were

obliged to be repaired at the expense of the British government. This extraordinary woman was meditating a new war with the Turks, when she was suddenly seized on the morning of November 9th, 1796, with a fit of apoplexy, which put an end to her life at 10 o'clock in the evening of the 10th, in the sixty-eighth year of her age. And she certainly died with the character of one of the greatest sovereigns that ever swayed the sceptre in Russia.

Catharine II. was succeeded in the empire of all the Russias by her son Paul, whose reign was short, and his end, like that of his father, unfortunate. Paul, though his education, from his mother's jealousy, had been very much neglected, seemed not to want spirit for great exertions. He took an active and zealous part with the combined powers in the operations against the French republicans; and, by the exertions of his troops under Suwarrow, the French power in Italy was for some time totally overthrown. They also made some exertions in Holland to assist the British troops, but with less success. But all Suwarrow's exertions were unrewarded by Paul; who, adopting a new system of politics, and showing an evident inclination to favor the French republicans, disgraced instead of recompensing the old general. But, while Paul was meditating farther exertions in favor of his new allies, the French republicans, he was murdered on the 23d March, 1801. The particulars of this transaction have been so variously related that we forbear to state any of them. The causes of the murder have been also so variously assigned that we shall likewise leave the investigation of them to future historians. But it is per-

haps an instructive exhibition of the nature of all arbitrary governments that, where the lives of the subjects are all at the mercy of the sovereign, the life of the sovereign should be at all times at the mercy of assassins. Of the character of Paul we shall only say that he appears to have been a well meaning man, but too fond of that arbitrary power to which he thought himself entitled by his birth, and of consequence rash and precipitate in his measures. See PAUL.

Paul was succeeded by his eldest son, Alexander; who, whether he was previously acquainted with the plot or not, appears to have made little enquiry after his father's murderers. For some time after his accession to the throne he appears to have profited considerably by his grandmother's instructions, and those of the preceptors she placed over him. He encouraged learning, the sciences, commerce, and manufactures, for the benefit of his subjects and empire. After several energetic but unsuccessful struggles against France, he became the humble friend of Buonaparte. See his life in detail in our article ALEXANDER OF RUSSIA. At the death of Alexander, through the intrigues of the empress mother, Constantine the elder brother was set aside, or compelled to abdicate the throne in favor of the reigning emperor Nicholas: he has already distinguished himself by a successful war against Turkey, in which he at last compelled the Porte to sue for peace upon humiliating conditions. In 1831 he engaged in a struggle with the Poles, in which he lost many thousand men, besides his general field-marshal Count Diebitsch Sabalkanski, but succeeded in crushing their liberties and reducing Poland to the form of a province.

RUST, *n. s., v. n., & v. a.* } Sax. *rust*; Dan. RUSTY, *adj.* } *rust*; Sard. *rost*.
Is the oxide of a metal, and is composed of oxygen combined with a metal: to gather rust or make rusty; the adjective corresponding.

Her fallow leas,
The darnel, hemlock, and rank fumitory
Doth root upon, while that the culter *rusts*,
That should deracinate such savagery. *Shakspeare.*
Keep up your bright swords, for the dew will *rust*
them. *Id. Othello.*
Hector, in his dull and long continued truce,
Is *rusty* grown. *Id. Troilus and Cressida.*
Let her see thy sacred truths cleared from all *rust*
and dross of human mixtures. *King Charles.*
Rust eaten pikes and swords in time to come,
When crooked ploughs dig up earth's fertile womb,
The husbandman shall oft discover. *May's Virgil.*
Gold is the best metal; and, for purity, not sub-
ject to *rust* as all others: and yet the best gold has
some dross. *Bp. Hall.*
After a long calm of peace, he was left engaged
in a war with a *rusty* sword and empty purse.

But Pallas came in shape of *rust*,
And 'twixt the spring and hammer thrust
Her Gorgon shield, which made the cock
Stand stiff, as 'twere transformed to scorp.

By dint of sword his crown he shall increase,
And scour his armour from the *rust* of peace.
Howel.
Hudibras.
Dryden.

Must I *rust* in Egypt never more
Appear in arms, and be the chief of Greece? *Id.*
Part scour the *rusty* shields with seam, and part
New grind the blunted axe. *Id. Aeneis.*
My scymitar got some *rust* by the sea water.
Gulliver.

RUST is the oxide of any metal, procured by corroding and dissolving its superficial parts by some menstruum. Water is the great agent in producing rust; and hence oils and other fatty bodies secure metals from rust; water being no menstruum for oil, and therefore not able to make its way through it. All metals except gold are liable to rust; and even this also if exposed to the fumes of sea-salt. Iron, for instance, when exposed to the air, soon becomes tarnished, and gradually changed into a brownish-red or yellow powder, well known by the name of rust. This change is occasioned by the gradual combination of the iron with the oxygen of the atmosphere, and is therefore an oxide of iron. The cutlers in Sheffield, when they have given knife or razor blades the requisite degree of polish, rub them with powdered quicklime, in order to prevent them from tarnishing; and we have been informed that articles made of polished steel are dipped in lime-water by the manufacturer, before they are sent into the retail market. Another method is that of varnishing over the metal with a composition of two parts oil varnish, mixed with one part rectified

spirits of turpentine. This varnish must be lightly and evenly applied with a sponge; after which the article is to be left to dry in some situation not exposed to dust. Articles thus varnished retain their metallic lustre, and do not contract any spots of rust. This varnish may be employed with particular advantage to preserve philosophical instruments from any change, in experiments where, by being placed in contact with water, they are liable to lose that polish and precision of form, which constitute part of their value. Plumbago, or black lead, also protects iron from rust for a time, and is on that account used on the fronts of grates, &c.

RUSTIC, *adj. & n. s.* } Lat. *rusticus*.
 RUSTICAL, } Rural; country;
 RUSTICALLY, } rude; untaught;
 RUSTICALNESS, } plain: a rustic is a
 RUSTICATE, *v. n. & v. a.* } clown, a country-
 RUSTICITY. } man: the adverb
 and noun-substantive corresponding: to rusticate
 is to reside in or banish into the country.

By Lelius willing missing was the odds of the Iberian side, and continued so in the next by the excellent running of a knight, though fostered by the muses, as many times the very *rustick* people left both their delights and profits to hearken to his songs.

Sidney.

There presented himself a tall, clownish, young man, who, falling before the queen of the fairies, desired that he might have the achievement of any adventure, which, during the feast, might happen; that being granted, he rested him on the floor, unfit for a better place by his *rusticity*.

Spenser.

My brother Jaques he keeps at school,
 And report speaks goldenly of his profit;
 For my part he keeps me *rustically* at home.

Shakespeare.

An altar stood, *rustick*, of grassy ford. *Milton.*
 This is by a *rustical* severity to banish all urbanity, whose harmless and confined condition is consistent with religion. *Browne's Vulgar Errors.*

He confounds the singing and dancing of the satyrs with the *rustical* entertainment of the first Romans. *Dryden.*

Quintius here was born,
 Whose shining ploughshare was in furrows worn,
 Met by his trembling wife, returning home,
 And *rustically* joyed, as chief of Rome. *Id.*

I was deeply in love with a milliner, upon which I was sent away, or, in the university phrase, *rusticated* for ever. *Spectator.*

The sweetness and *rusticity* of a pastoral cannot be so well express'd in any other tongue as in the Greek, when rightly mixed with the Dorick dialect. *Addison.*

As nothing is so rude and insolent as a wealthy *rustick*, all this his kindness is overlooked, and his person most unworthily rail'd at. *South.*

This so general expense of their time would curtail the ordinary means of knowledge, as 'twould shorten the opportunities of vice; and so accordingly an universal *rusticity* presently took place, and stopped not till it had over-run the whole stock of mankind. *Woodward's Natural History.*

With unguent smooth the polished marble shone,
 Where ancient Neleus sat, a *rustick* throne. *Pope.*

My lady Scudamore, from having *rusticated* in your company too long, pretends to open her eyes for the sake of seeing the sun, and to sleep because it is night. *Id.*

An ignorant clown cannot learn fine language or

a courtly behaviour, when his *rustick* airs have grown up with him till the age of forty. *Watt's Logic.*

RUSTIC GODS, *dii rustici*, in antiquity, the gods of the country, or those who presided over agriculture, &c. Varro invokes the twelve di. consentes, as the principal among the rustic gods, viz. Jupiter, Tellus, the Sun, Moon, Ceres, Bacchus, Rubigus, Flora, Minerva, Venus, Lympha, and Fortune. Besides these twelve arch-rustic gods, there were a number of lesser ones; as Pales, Vertumnus, Tutelina, Fulgor, Sterculius, Mellona, Jngatinus, Collinus, Val-lonia, Terminus, Sylvanus, and Priapus. Struvius adds the Satyrs, Fauns, Sileni, Nymphs, and even Trytons; and gives the empire over all the rustic gods to Pan.

RUSTIC WORK, is where the stones in the face, &c., of a building, instead of being smooth, are hatched, or picked with the point of a hammer.

RUSTICUS (L. Junius Arulenus), a learned Roman, the preceptor and friend of Pliny the younger. His abilities are celebrated by Pliny and Tacitus. He was put to death by Domitian. —Sueton.

RUSTLE, *v. n.* Sax. *prurrlan*. To make a low continued small noise or rattle.

He is coming; I hear the straw *rustle*.

Shakespeare.

This life

Is nobler than attending for a check;
 Richer than doing nothing for a bauble;
 Prouder than *rustling* in unpaid-for silk. *Id.*

Thick swarmed, both on the ground, and in the air

Brushed with the hiss of *rustling* wings. *Milton.*

As when we see the winged winds engage,
Rustling from every quarter of the sky,
 North, East, and West, in airy swiftness *vy*.

Granville.

All begin the attack;
 Fans clap, silks *rustle*, and tough whalebones crack. *Pope.*

Not less their number than the milk-white swans
 That o'er the winding of Cyaster's springs,
 Stretch their long necks, and clap their *rustling*
 wings. *Id.*

RUSTSCHUK, or RUSCEK, a large town or European Turkey, in Bulgaria, situated at the influx of the Cara Lom into the Danube, which is here nearly two miles wide. It has a strong castle and several mosques and public baths; is the see of a Greek archbishop, and contains considerable manufactures of silk, cotton, linen, woollen, and tobacco. Giorgley and this town are the two great entrepôts for the commercial intercourse by the Danube between the Euxine and the interior. It was taken by the Russians in 1810, and the following year a Turkish army was totally defeated near this by the Russians, with the loss of all its artillery and baggage. About five miles from Rustschuk are to be seen the ruins of the old town of Tschernow or Csernavoda. Population 24,000. Forty miles east of Nicopoli, and fifty-five west of Semendria.

RUT, *n. s.* Fr. *rut*. Copulation of deer: also, from the Fr. *route*, the track of a cart-wheel.

That is an advertisement to one Diana, to take heed of the allurements of coant Rousillon, a foolish idle boy; but for all that very *rustish*.

Shakespeare. All's Well that Ends Well.

The time of going to *rut* of deer is in September; for that they need the whole summers feed to make them fit for generation; and, if rain come about the middle of September, they go to *rut* somewhat the sooner. *Bacon.*

From hills raine waters headlong fall,
That always eat huge *ruts*, which, met in one bed
fill a vall

With such a confluence of streames, that on the
mountaine grounds

Farre off, in frighted shepherds eares the bustling
noise rebounds. *Chapman.*

The ground hereof was the observation of this part
in deer after immoderate venery, and about the end
of their *rut*. *Browne.*

RUTA, in botany, rue; a genus of the monogynia order, and decandria class of plants; natural order twenty-sixth, multisiliquæ: CAL. quinquepartite; petals concave; receptacle surrounded with ten melliferous pores: CAPS. lobed: SEEDS numerous. There are several species, of which the most remarkable are these:—

1. *R. baga*, or Swedish turnip. See RURAL ECONOMY. Besides being later in shooting than the common turnip, this plant loses not its nutritive qualities after being shot, but retains all its juices and solidity. This root has been supposed a mere variety of the yellow turnip, but it is found to differ very materially. The stem has something of the appearance of the rape, or cabbage kind; and that part of the root which is above the surface of the ground is covered by a thick, green skin, which in some is smooth, but in others quite rough, and the internal fleshy part is of a dense firm consistence, having a yellowish tinge, nearly similar to that of the horn carrot. The great inducements for the farmer to enter freely into the culture of this root are, according to Mr. Young, 1. If he has the right sort of seed, the root yellow in flesh, and rough in coat, it lasts through all frosts, and may be depended on for sheep quite through the month of April, though drawn two months before, and spread on a grass field. 2. It is an excellent and nourishing food for sheep, and also for any sort of cattle. 3. It is equal to potatoes in keeping stockswine: a point of very great consequence. 4. It is, next to carrots, the very best food that can be given to horses. 5. It is sown at a season which leaves ample time, in case of a failure, to put in common turnips, or cabbages. Another extraordinary quality of the *ruta baga* is that it seems impossible to make it rot: though bit, or trod upon by cattle or horses, it never rots; but whatever part of the root is left, nay, if scooped out to the shell, it remains perfectly fresh, and in spring puts out a new stem. Both roots and leaves are excellent for culinary purposes.

2. *R. hortensis*, or common broad-leaved garden rue, has been long cultivated for medicinal use. It rises with a shrubby stalk to the height of five or six feet, sending out branches on every side, garnished with leaves, whose small lobes are wedge-shaped, of a gray color, and have a strong odor. The flowers are produced at the end of the branches in bunches almost in the form of umbels: they are composed of four yellow concave petals, which are cut on their edges, and eight yellow stamina which are longer

than the petals, terminated by roundish summits. The germen becomes a roundish capsule, with four lobes, full of holes containing rough black seeds. Rue has a strong unpleasant smell, and a bitterish penetrating taste: the leaves, when full of vigor, are extremely acrid, insomuch as to inflame and blister the skin, if much handled. With regard to their medicinal virtues, they are powerfully stimulating, attenuating, and detergent. Boerhaave entertained a very high opinion of the virtues of this plant, particularly of the essential oil, and the distilled water cohobated or redistilled several times from fresh parcels of the herb

RUTCHESTER, an ancient town of Northumberland, north-west of Chollerton, called Vindobala by the Romans. The wall of Severus runs on the middle of the east rampart, and that of Adrian passes about a chain to the south of it. Its fort was formerly considerable, and its ruins are still remarkable.

RUTH, *n. s.* } From rue. Mercy;
RUTH'FUL, *adj.* } pity; tenderness: the
RUTH'FULLY, *adv.* } rivatives all correspond-
RUTH'LESS, *adj.* } ing. Out of use.

His archers circle me; my reins they wound,
And *ruthless* shed my gall upon the ground.

Sandys.

The Britons, by Maximilian laid way
With wretched miseries and woful *ruth*,
Were to those Pagans made an open prey. *Spenser.*

Help me, ye baneful birds, whose shrieking sound
Is sign of dreary death, my deadly cries
Most *ruthfully* to tune. *Id. Pastorals.*

The flower of horse and foot, lost by the valour of
the enemy, *ruthfully* perished. *Knolles.*

What is Edward but a *ruthless* sea?

What Clarence but a quicksand of deceit?

Shakspeare.

All *ruth*, compassion, mercy be forgot. *Fairfax.*

By this Minerva's friend bereft

Oileades of that rich bowl, and left his lips, nose,
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Ruthfully smeared. *Chapman's Iliad.*

O wretch of guests, said he, thy tale hath stirred
My mind to much *ruth*. *Chapman.*

The inhabitants seldom take a *ruthful* and reaving
experience of those harms, which infectious dis-
eases carry with them. *Carew.*

The better part with Mary and with Ruth
Chosen thou hast; and they that overween,
And at thy growing virtues fret their spleen,
No anger find in thee, but pity and *ruth*. *Milton.*

Their age the *ruthless* powers restrain,
All but the *ruthless* monarch of the main. *Pope.*

RUTH, a canonical book of the Old Testament, being a kind of appendix to the book of Judges, and an introduction to Samuel; and having its title from the person whose history is herein principally related. In this history are observable the ancient rights of kindred and redemption, and the manner of buying the inheritance of the deceased. The authenticity of this book was never disputed; but the learned are not agreed about the epocha of the history it relates. Watkins places it about A. A. C. 1254.

RUTHERFORD (John), M. D., one of the founders of the medical school in the University of Edinburgh, was born in 1695, and received the rudiments of his education at the parish school of Selkirk. After his father's death he

spirits of turpentine. This varnish must be lightly and evenly applied with a sponge; after which the article is to be left to dry in some situation not exposed to dust. Articles thus varnished retain their metallic lustre, and do not contract any spots of rust. This varnish may be employed with particular advantage to preserve philosophical instruments from any change, in experiments where, by being placed in contact with water, they are liable to lose that polish and precision of form, which constitute part of their value. Plumbago, or black lead, also protects iron from rust for a time, and is on that account used on the fronts of grates, &c.

RUSTIC, *adj.* & *n. s.* } Lat. *rusticus*.
 RUST'ICAL, } Rural; country;
 RUST'ICALLY, } rude; untaught;
 RUST'ICALNESS, } plain: a rustic is a
 RUST'ICATE, *v. n.* & *v. a.* } clown, a country-
 RUSTIC'ITY. } man: the adverb
 and noun-substantive corresponding: to rusticate
 is to reside in or banish into the country.

By Lelius willing missing was the odds of the Iberian side, and continued so in the next by the excellent running of a knight, though fostered by the muses, as many times the very *rustick* people left both their delights and profits to hearken to his songs.
Sidney.

There presented himself a tall, clownish, young man, who, falling before the queen of the fairies, desired that he might have the achievement of any adventure, which, during the feast, might happen; that being granted, he rested him on the floor, unfit for a better place by his *rusticity*.
Spenser.

My brother Jaques he keeps at school,
 And report speaks goldenly of his profit;
 For my part he keeps me *rustically* at home.
Shakespeare.

An altar stood, *rustick*, of grassy ford. *Milton.*
 This is by a *rustical* severity to banish all urbanity, whose harmless and confined condition is consistent with religion.
Browne's Vulgar Errors.

He confounds the singing and dancing of the satyrs with the *rustical* entertainment of the first Romans.
Dryden.

Quintius here was born,
 Whose shining ploughshare was in furrows worn,
 Met by his trembling wife, returning home,
 And *rustically* joyed, as chief of Rome. *Id.*

I was deeply in love with a milliner, upon which I was sent away, or, in the university phrase, *rusticated* for ever.
Spectator.

The sweetness and *rusticity* of a pastoral cannot be so well express'd in any other tongue as in the Greek, when rightly mixed with the Dorick dialect.
Addison.

As nothing is so rude and insolent as a wealthy *rustick*, all this his kindness is overlooked, and his person most unworthily rail'd at.
South.

This so general expense of their time would curtail the ordinary means of knowledge, as 'twould shorten the opportunities of vice; and so accordingly an universal *rusticity* presently took place, and stopped not till it had over-run the whole stock of mankind.
Woodward's Natural History.

With unguent smooth the polished marble shone,
 Where ancient Neleus sat, a *rustick* throne. *Pope.*

My lady Scudamore, from having *rusticated* in your company too long, pretends to open her eyes for the sake of seeing the sun, and to sleep because it is night.
Id.

An ignorant clown cannot learn fine language or

a courtly behaviour, when his *rustick* airs have grown up with him till the age of forty. *Watts's Logick.*

RUSTIC GODS, *dii rustici*, in antiquity, the gods of the country, or those who presided over agriculture, &c. Varro invokes the twelve *dii* consentes, as the principal among the rustic gods, viz. Jupiter, Tellus, the Sun, Moon, Ceres, Bacchus, Rubigus, Flora, Minerva, Venus, Lympha, and Fortune. Besides these twelve arch-rustic gods, there were a number of lesser ones; as Pales, Vertumnus, Tutelina, Fulgor, Sterculius, Mellona, Jugatinus, Collinus, Valonia, Terminus, Sylvanus, and Priapus. Struvius adds the Satyrs, Fauns, Sileni, Nymphs, and even Trytons; and gives the empire over all the rustic gods to Pan.

RUSTIC WORK, is where the stones in the face, &c., of a building, instead of being smooth, are hatched, or picked with the point of a hammer.

RUSTICUS (L. Junius Arulenus), a learned Roman, the preceptor and friend of Pliny the younger. His abilities are celebrated by Pliny and Tacitus. He was put to death by Domitian. — Sueton.

RUSTLE, *v. n.* Sax. *purplan*. To make a low continued small noise or rattle.

He is coming; I hear the straw *rustle*.
Shakespeare.

This life
 Is nobler than attending for a check;
 Richer than doing nothing for a bauble;
 Prouder than *rustling* in unpaid-for silk. *Id.*

Thick swarmed, both on the ground, and in the air

Brushed with the hiss of *rustling* wings. *Milton.*

As when we see the winged winds engage,

Rustling from every quarter of the sky,

North, East, and West, in airy swiftness vy.

Granville.

All begin the attack;
 Fans clap, silks *rustle*, and tough whalebones crack.
Pope.

Not less their number than the milk-white swans
 That o'er the winding of Cyaster's springs,
 Stretch their long necks, and clap their *rustling*
 wings. *Id.*

RUSTSCHUK, or RUSCEK, a large town or European Turkey, in Bulgaria, situated at the influx of the Cara Lom into the Danube, which is here nearly two miles wide. It has a strong castle and several mosques and public baths; is the see of a Greek archbishop, and contains considerable manufactures of silk, cotton, linen, woollen, and tobacco. Giorgley and this town are the two great entrepots for the commercial intercourse by the Danube between the Euxine and the interior. It was taken by the Russians in 1810, and the following year a Turkish army was totally defeated near this by the Russians, with the loss of all its artillery and baggage. About five miles from Rustschuk are to be seen the ruins of the old town of Tschernow or Csernavoda. Population 24,000. Forty miles east of Nicopoli, and fifty-five west of Semendria.

RUT, *n. s.* Fr. *rut*. Copulation of deer: also, from the Fr. *route*, the track of a cart-wheel.

That is an advertisement to one Diana, to take heed of the allurements of count Rousillon, a foolish idle boy; but for all that very *rustish*.

Shakespeare. All's Well that Ends Well.

The time of going to *rut* of deer is in September ; for that they need the whole summers feed to make them fit for generation ; and, if rain come about the middle of September, they go to *rut* somewhat the sooner.

Bacon.

From hills raine waters headlong fall,
That always eat huge *ruts*, which, met in one bed
fill a vall

With such a confluence of streames, that on the
mountaine grounds

Farre off, in frighted shepherds eares the bustling
noise rebounds.

Chapman.

The ground hereof was the observation of this part
in deer after immoderate venery, and about the end
of their *rut*.

Browne.

RUTA, in botany, rue ; a genus of the mono-
gynia order, and decandria class of plants ; natu-
ral order twenty-sixth, multisiliquæ : CAL.
quinquepartite ; petals concave ; receptacle
surrounded with ten melliferous pores : CAPS.
lobed : SEEDS numerous. There are several
species, of which the most remarkable are
these :—

1. R. baga, or Swedish turnip. See RURAL
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the common turnip, this plant loses not its nutri-
tive qualities after being shot, but retains all its
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went to Edinburgh, where he studied at the University. He next engaged himself as an apprentice to a surgeon in Edinburgh, with whom he continued till 1716, when he went to London, and attended the lectures on anatomy by Dr. Douglas, on surgery by André, and on materia medica by Strother. In 1717 he returned to Edinburgh, and afterwards he went to Leyden, then the most famous medical school in Europe. In 1719 he went to France, and was, in July, admitted to the degree of M. D. at the University of Rheims. He spent the winter in Paris, for the sake of Winslow's demonstrations in anatomy; and in 1720 returned to Britain. In 1721 he settled as a physician in Edinburgh; and soon afterwards joined with Drs. Sinclair, Plummer, and Innes, in purchasing a laboratory, for the preparation of compound medicines. They also gave lectures on chemistry to a numerous audience; and soon after on other branches of medicine. In 1725 they were appointed conjunct professors in the University, and each for some time read lectures in every department of medical science, except anatomy, and carried forward their classes in rotation. In 1748 Dr. Rutherford introduced a great improvement in medical education. Sensible that abstract lectures on the symptoms and the mode of treating various diseases, of which the students know little but the names, could scarcely be of any benefit, he had for some time encouraged his pupils to bring patients to him on Saturday, when he enquired into the nature of their diseases, and prescribed for them in the presence of the class. This gave rise to the course of clinical lectures; the utility of which was so obvious that it was enacted, by a decree of the senate of the University, that no man should be admitted to an examination for his degree who had not attended those lectures; to which an excellent hospital, then newly erected, gave the professors every opportunity of doing ample justice. He resigned his professorship in 1765, after having taught medicine in its different departments for upwards of forty years. He died in Edinburgh in 1779.

RUTHERFORD (Thomas), D.D., was born in 1712; became fellow of St. John's College, Cambridge, regius professor of divinity in that university, rector of Shenfield, and archdeacon of Essex. He married Charlotte Elizabeth Abdy, daughter of Sir William Abdy, Bart. He published, 1. *An Essay on the Nature and Obligations of Virtue*; 8vo. 1744. 2. *A System of Natural Philosophy*; Cambridge, 1748; 2 vols. 8vo. 3. *A Letter to Dr. Middleton, in defence of Bishop Sherlock*; 8vo. 1750. 4. *A Discourse on Miracles*; 8vo. 1751. 5. *Institutes of Natural Law*; 2 vols. 8vo. 6, 7. *Two Letters to Dr. Kennicott*; 1761 and 1762. 8. *A Vindication of Subscriptions to an Established Confession of Faith, &c.*; Cambridge, 1767. 9, 10. *Two other Tracts on the same subject*; 1766 and 1767: besides several Sermons, and Charges to the Clergy. He died October 5th, 1771, aged fifty-nine.

RUTHERGLEN, or RUGLEN, an ancient royal borough of Scotland, in Lanarkshire. Maitland says it was founded by Ruther, the

seventh king of Scots, from whom it derived its name. From several original charters, still preserved, it is certain that it was erected into a royal borough by king David I. about 1126. The territory under the jurisdiction of the borough was extensive, and the inhabitants enjoyed many distinguished privileges, which were however gradually wrested from them in favor of Glasgow, which in later times rose into consequence by trade and manufactures. It is now much reduced, consisting of but one street and a few lanes. About 150 yards to the south of the main street is a kind of lane, named Dins Dykes, where queen Mary was for a short time stopt in her flight, after the battle of Langside, by some insolent rustics. Adjoining to a lane called the Back Row stood the castle of Rutherglen, originally built about the time of the foundation of the town. This ancient fortress underwent several sieges during the wars in the days of king Robert Bruce, and it remained a place of strength until the battle of Langside; soon after which it was destroyed by the regent, to revenge himself on the Hamilton family, in whose custody it then was. No relic of it now exists. Rutherglen joins with Kilmarnock, Port-Glasgow, Renfrew, and Dumbarton, in electing a member to parliament. Rutherglen is two miles south-east of Glasgow, and nine west of Hamilton.

RUTHYN, a borough of North Wales, in Denbighshire, with a good market on Monday, with an ancient castle restored and occupied by the Wests. The church, a handsome building, was made collegiate in 1310, at which time there was here a monastery of White Friars. The town was formerly surrounded by walls, but it is now little more than a broad ill-built street, leading to the market-house, in which stands the town-hall. It has a free school, hospital, and county court-house; fifteen miles south-west from Holywell, and 210 miles north-west of London.

RUTILIUS RUFUS (Publius), a Roman consul, in the age of Sylla, celebrated for his writings. Sylla having banished him, he retired to Smyrna, and refused, when solicited by his friends, to be restored by arms. He was the first who taught the Roman soldiers to fabricate their own weapons; and, during his exile, wrote a History of Rome, in Greek; and an account of his own life in Latin; and many other works, which are lost. Ovid, Fast., Seneca, Cic. &c.

RUTLAND, county of, or RUTLANDSHIRE, is the smallest county of England. The Saxon name of this county was Roteland, but its etymology is otherwise unknown. Some have derived it from Roet, or Rud, which signifies red, because in many parts of the county the land is of a red color. But others object that this cannot be the reason, and allege that there is only one part of the county, which is about Glaiston, that has a ruddy soil; besides, most of the English counties have soils of the same color; and therefore these would have it to be derived from the word Rotundalandia, from its circular figure; but its form was not round when this name, of which Rutland is supposed to be a contraction, was given it; and, besides, it is not probable that the Saxons would give a Latin name to an English county. The Coritani inhabited this

district in the time of the Romans; but under the Saxons it was part of the kingdom of Mercia. This county is bounded by Leicestershire on the N. N. W., west and south-west; and by Lincolnshire on the east and north-east. It is only forty-eight miles in circumference. It is divided into five hundreds, and contains 91,002 acres and twenty-nine perches.

The climate of this county is generally esteemed very good and healthy; and it is thought that the winds blow as many days in the year from one point as another, the west excepted. The mean quantity of rain which has been observed, according to a journal kept by Samuel Barker, esq., and cited in Mr. Parkinson's Survey, in eight years, was 24.61. The soil of this county is, generally speaking, fertile, but varying very much in different parts; the east and south-east parts, through which the great North road runs, being in general of a shallow staple, upon limestone rock, with a mixture of cold woodland clay soil. The other parts of the county are composed of a strong loamy red land, intermixed with keal (iron-stone is found amongst it). This soil is esteemed most congenial for convertible tillage crops; the understratum of the whole county, at different depths, is generally a very strong blue clay. The circumstance of this county varying so much in its soils, at such small distances, causes each sort to be much more valuable than it would be were it of one kind through the whole of a lordship; there being a proportion of each soil on the different farms, so as to have convertible high lands for tillage, and low lands for grass, having the advantage of being proper for breeding and store stock; thus producing every thing useful within themselves, the tillage land growing turnips for the store and fattening sheep; barley, clover, wheat, and grass-seeds plentifully. The face of the county is, generally speaking, very beautiful, especially where it is well timbered, being much diversified by small and gently rising hills running east and west, with valleys of about half a mile in width intervening; so that in travelling through the county there are fresh views at the distance of every three or four miles, causing its appearance to be very lively. The produce of this county has already been partially alluded to: its barley is of a very superior quality, so that the inhabitants call it corn, giving other grain its name, such as wheat, oats, &c. At Ketton there is a kind of stone very proper and famous for building. There is also in many parts stone for lime, consisting of a soft and hard species. Various opinions are entertained of the lime made from these two sorts; but in general that from the hard stone is preferred. This county is, upon the whole, well watered. The rivers Eye and Welland are its south-west and south-east boundaries; but its two principal rivers are the Guash and the Chater: there are also many rivulets and numberless springs. The Welland divides this county from Northamptonshire; the Guash, or, as it is commonly called, the Wash, rises near Oakham, in a district surrounded with hills, and running eastward divides the county nearly into two equal parts, and running into

Lincolnshire falls into the Welland to the east of Stamford. This river supplies many towns with excellent water, and affords plenty of fish; and most of the other towns and villages at a distance from this river have rivulets and brooks that pass by them.—There is a navigable canal in this county, made by act of parliament passed in 1793, for extending the Melton Mowbray canal to Oakham, the centre of the county, which has proved of great benefit to it. It is said, however, to be frequently defective in the summer season from the very scanty supply of water. Rutlandshire sends only two members to parliament, both for the county.

The smallness of this county will account for the few eminent men it has produced. We know not whether we may apply the term eminent to Jeffery Hudson, the dwarf; but certainly he thought himself of some consequence when he fought a duel with a brother of lord Croft's. He was born at Oakham, the county town, in the year 1619, and when seven years of age was not above fifteen inches high, though his parents, who had several other children of the usual size, were tall and lusty. At that age the duke of Buckingham took him into his family; and, to divert the court, who, on a progress through this county, were entertained at the duke's seat at Burreleigh-on-the-Hill, he was served up at table in a cold pie. Between the seventh and the thirteenth year of his age he did not advance many inches in stature: but it is remarkable that even after thirty he shot up to the height of three feet nine inches, which he never exceeded. He was given to Henrietta Maria, consort to king Charles I., probably at the time of his being served up in the pie; and that princess, who kept him as her dwarf, is said frequently to have employed him in messages abroad. In the civil wars between king Charles the First and the Parliament, Hudson was raised to the rank of captain of horse in the king's service, and afterwards accompanied the queen, his mistress, to France; whence he was banished for killing his antagonist, as above mentioned. They fought on horseback. After his banishment, he was taken at sea by an Algerine corsair, and was many years a slave in Barbary; but being redeemed he came to England, and in 1678 was committed prisoner to the Gate House, Westminster, on suspicion of being concerned in what was called Oates's plot. After lying there a considerable time he was discharged, and died in 1682, aged sixty-three years. In Newgate Street, London, there is a small stone sculpture of one William Evans, a gigantic porter to Charles I.; and another of his diminutive fellow-servant. Pennant has given us a sketch of this sculpture on the same plate with the Boar in East Cheap, but has omitted to insert the date, 1669. The same author observes that it was probably by his own consent that the dwarf was put into the pocket of the giant, and drawn out by him at a masque at court to amaze and divert the spectators; for it is certain he had too much spirit to suffer such an insult from even Goliath, as was evident from his courage in 1644, when he killed Mr. Croft, who had presumed to ridicule the irritable hero. These figures are in

very excellent preservation, having been recently painted, with red surtouts, by the owner or occupier of the house (No. 80), Mr. George Payne, hatter, hosier, and glover. Mr. Pennant, and others after him, have placed this sculpture over the entrance to Bagnio Court.—This county has given the title of earl ever since the reign of Richard II. The first earl of Rutland was Edward, the eldest son of Edward Langley, the fifth son of Edward III.: but the first earl of the present family of Manners was created earl of Rutland by Henry VIII. In the reign of queen Anne, John Manners, then earl of Rutland, received from that princess the title of marquis of Granby and duke of Rutland, which his successors still enjoy.

‘There is no manufacture carried on in this county of any account. Want of water and scarcity of fuel are the only reasons, and not any want of inclination, spirit, or property, in the inhabitants of the county.’ Parkinson.

RUTTUNPORE, a town and district of Hindostan, in the province of Gundwahneh. It is governed by a rajah, who is tributary to the Mahrattas. The town consists of about 1000 houses, but it was formerly a place of much greater consequence. There are other places of this name in Hindostan.

RUTUBA, in ancient geography, two rivers of Italy: one in Liguria, rising in the Apennine mountains, and running into the Mediterranean; another in Latium, falling into the Tiber.

RUTULI, an ancient people of Latium, over whom Turnus reigned, when Æneas arrived in Italy. Their capital was Ardea.

RUTUPÆ, **RUTUPIUM**, or **RUTUPENSIS PORTUS**, in ancient British geography, a sea-port town of Cantium, on the south coast of Britain, abounding in oysters. Some suppose it to be Dover; others Richborough, or Sandwich.

RUYSCH (Frederick), the celebrated Dutch anatomist, was born at the Hague in 1638. After making great progress at home, he repaired to Leyden, and there prosecuted the study of anatomy and botany. He studied next at Franeker, where he became M. D. He then returned to the Hague; and, marrying in 1661, devoted his whole time to his profession. In 1665 he published a treatise, entitled *Dilucidatio valvularum de Vasis Lymphaticis et Lacteis*; which raised his reputation so high that he was chosen professor of anatomy at Amsterdam. After this he was perpetually engaged in dissecting the various parts of the human body. His anatomical collection was very valuable. He had a series of fetuses of all sizes, from the length of the little finger to that of a new born infant. Peter the Great of Russia, in his tour through Holland in 1698, visited Ruysch, passed whole days with him, and, when he returned to Holland in 1717, purchased his cabinet of curiosities for 30,000 florins, and sent it to Petersburg. In 1685 he was made professor of medicine. Ruysch retained his vigor of mind and body till 1731, when he died on the 22d of February. His anatomical works are printed in 4 vols. 4to. The style of his writings is simple and concise, but sometimes inaccurate. The academy of

sciences at Paris in 1727 elected him a member. He was also F. R. S. of London.

RUYSDAAL, or **RUYSBALL** (Jacob), an eminent Dutch landscape painter, born at Haerlem, in 1636. He painted sea pieces with inimitable truth and transparency. He died in 1681.

RUYSER (Michael Adrian), a distinguished Dutch naval officer born at Flushing, in Zealand, in 1607. He entered on a seafaring life when he was only eleven years old, was first a cabin boy, and advanced successively to the rank of mate, master, and captain. He made eight voyages to the West Indies, and ten to Brasil. He was then promoted to the rank of rear admiral, and sent to assist the Portuguese against the Spaniards. His gallantry was still more conspicuous before Sallee in Barbary. With one single vessel he sailed through the roads of that place in defiance of five Algerine corsairs. In 1653 a squadron of seventy vessels was sent against the English under admiral Van Tromp. Ruyster, who accompanied the admiral in this expedition, seconded him with great skill and bravery in the three battles which the English so gloriously won. He was afterwards stationed in the Mediterranean, where he took several Turkish vessels. In 1659 he received a commission to join the king of Denmark in his war with the Swedes; and the king of Denmark ennobled him and gave him a pension. In 1661 he run ashore a vessel belonging to Tunis, released forty Christian slaves, made a treaty with the Tunisians, and reduced the Algerine corsairs to submission. His country raised him to the rank of vice-admiral and commander in chief. He obtained a signal victory over the combined fleets of France and Spain in 1672, about the time of the conquest of Holland. Ruyster, having thus made himself master of the sea, conducted a fleet of Indiamen safely into the Texel; thus defending and enriching his country, while it was the prey of hostile invaders. In 1673 he had three engagements with the fleets of France and England, in which his bravery was more distinguished than ever. But in an engagement with the French fleet, off the coast of Sicily, he lost the day, and received a mortal wound, of which he died in a few days. His corpse was carried to Amsterdam, and a magnificent monument was there erected by the command of the states-general.

RYDAL WATER, a lake of Westmoreland, a little west of Ambleside; about one mile long. It has many small islands; and communicates by a narrow channel with Grassmere Water on the west, and by the Rothway with Windermere Lake on the south. Rydal Hall stands on an eminence near the lake.

RYDROOG, a town and district of Hindostan, in the province of Bijanagur, now included in the British collectorship of Bellary. It was taken possession of in the end of the sixteenth century, by the delawai, or minister of the rajah of Bijanagur, after the defeat of that prince by the Mahometans. In 1766 it was subdued by Hyder Aly; and at the peace of 1792 ceded to the Nizam; but in the year 1800 it was

made over to the British. The town stands in long. 77° 22' E., and lat. 14° 19'.

RYE, *n. s.* Sax. *ryge*; Swed. *ryg, rog*; Belg. *rogge*, i. e. rough. A coarse kind of bread corn.

Between the acres of the *rye*,
These pretty country folks would lye. *Shakspeare*
Some sow *rye grass* with the corn at Michaelmas
Mortimer.

Rye is more acrid, laxative, and less nourishing than wheat. *Arbutnot on Aliments.*

RYE, in botany. See SECALE.

RYE, a town of Sussex, with markets on Wednesday and Saturday. It is one of the cinque-ports; is a handsome well built place, governed by a mayor and jurats, and sends one member to parliament. It has a church built with stone, and a town hall; and the streets are paved with stone. It has two gates, and is a place of great naval trade. Thence large quantities of corn are exported, and many of the inhabitants are fishermen. It is thirty-four miles south-east by south of Tunbridge, and sixty-four on the same point from London. The mouth of the harbour is choked up with sand, though of late it has been considerably improved, by cutting a new channel to the sea, and erecting a dam across the old one, under the direction of Dr. Pape, vicar of Pen. The corporation is held by prescription, and consists of a mayor, jurats, and freemen; and, ever since the reign of king Edward III., this place has sent two members to parliament, who are elected by the mayor and freemen. A store-house, called the Friary, was formerly a church belonging to the Augustines.

RYEGATE, a borough and market town of Surrey, seated in the valley of Holmsdale. It sends one member to the imperial parliament. It had a castle, the ruins of which are still to be seen; particularly a long vault, with a large room at one end, where the barons held their private meetings in the reign of king John, before they took up arms against him. It is sixteen miles east of Guildford, and twenty-one south-west of London. Market on Tuesday.

RYEGRASS. See HORDEUM.

RYEPOOR, a large town of Hindostan, province of Gundwaneh, district of Choteesgur. It was formerly reckoned the second in the Nagpore dominions, and is situated on the road from Cuttack to Nagpore, in long. 82° 26' E., lat. 21° 17' N.

RYER (Peter Du), a French dramatic writer, born in Paris in 1605. He was secretary to the king, and afterwards became secretary to the duke of Vendome. He wrote for the booksellers, and his works procured him a place in the French Academy in 1646. He was afterwards made historiographer of France. He wrote nineteen dramatic pieces, and thirteen translations. He died in 1658.

RYMER (Thomas), esq., the author of the *Fœdera*, was born in the north of England, and educated at the grammar school of Northallerton.

He was admitted a scholar at Cambridge, then became a member of Gray's Inn, and at length was appointed historiographer to king William. He wrote *A View of the Tragedies of the Last Age*, and afterwards published a tragedy named *Edgar*. His *Fœdera*, a collection of all the public transactions, treaties, &c., of the kings of England with foreign princes, is esteemed one of our most authentic and valuable records, and is often referred to by the best English historians. It was published in London about 1700, in 17 vols. folio. Three were added by Sanderson after Rymer's death. The whole were reprinted at the Hague in 10 vols. in 1739. They were abridged by Rapin in French, and inserted in *Le Clerc's Bibliothéque*. Rymer died in 1713. Some specimens of his poetry are preserved in *Nichols's Select Collections*.

RYMER, THOMAS THE. See RHYMER.

RYNABAD, a town of Bengal, in the district of Jessore, stands on the south bank of the Boirub, and is one of the most frequented channels for boats coming down the country in the hot season, through the woods or *sunderbunds*. Long. 89° 44' E., lat. 22° 42' N.

RYNCHOPS, in ornithology, a genus belonging to the order of anseres. The bill is straight; and the superior mandible much shorter than the inferior, which is truncated at the point. The species are two, viz.

1. *R. fulva*, and 2. *R. nigra*, both natives of America.

RYSCHIA, in botany, a genus of the monogynia order, and pentandria class of plants: CAL. pentaphyllous: COR. pentapetalous; the apices turned back, about three times the length of the calyx; the filaments are five, awl-shaped, and shorter than the petals: CAPS. quadrilocular, and contains many seeds. Of this there are two species, viz.

1. *R. clausifolia*; and 2. *R. souroubea*.

RYVES (Sir Thomas), an English lawyer, born about 1590, and educated at Winchester school, and the university of Oxford. He became a celebrated civilian in *Doctors' Commons*, and the court of Admiralty. On the accession of Charles I. he was made king's advocate, and knighted. He wrote, 1. *The Vicar's Plea*; 2. *Historia Navalis Antiqua*; 3. *Historia Navalis Media*. He died in 1651.

RZESZOW, one of the circles of Austrian Poland, lying along the southern frontier of the new kingdom of Poland, and containing a tract of 1675 square miles. It is watered by the San and the Wisloka, and has about 225,000 inhabitants. It is in general level and fertile, but is covered on the north side by almost impenetrable forests. The capital of the same name is a small town on the Wisloka, seventy miles west of Lemberg, and eighty east of Cracow. It is one of the best built towns of the Austrian part of Poland, and has a brisk traffic in corn and poultry. Inhabitants 4600.

S.

As a letter, S is the eighteenth in our alphabet, and the fourteenth consonant. The sound is formed by driving the breath through a narrow passage between the palate and the tongue, elevated near it, together with a motion of the lower jaw and teeth towards the upper, the lips being a little way open; with such a configuration of every part of the mouth and larynx as renders the voice somewhat hissing.

S has in English the same sound as in other languages, and unhappily prevails in so many of our words that it produces in the ear of a foreigner a continued sibilant. In the beginning of words it has invariably its natural and genuine sound: in the middle it is sometimes uttered with a stronger appulse of the tongue to the palate, like *z*, as *rose*, *rosy*, *osier*, *resident*, *business*. In the end of monosyllables it is sometimes *s*, as in this; and sometimes *z*, as in *as*, *has*; no noun singular should end with *s* single: therefore in words written with diphthongs, and naturally long, an *e* is nevertheless added at the end, as *goose*, *house*; and, where the syllable is short, the *s* is doubled, and was once *sse*, as *ass*, anciently *asse*; *wilderness*, anciently *wildernessse*; *distress*, anciently *distressse*. In some words it is silent, as *isle*, *island*, *viscount*, &c. Of all other letters, the *s* is nearest akin to the *r*; whence it was frequently changed, on account of its disagreeable sound, into *r*. See *R*. Add to this, that the Latin nouns now terminating in *or*, as *arbor*, *labor*, &c., all anciently ended in *s*, as *arbos*, *labos*, &c. As an abbreviation, *S* stands for *societas* or *socius*; as, *R.S.S.* for *Regiæ societatis socius*; or *F.R.S.* *Frater regiæ societatis*, i. e. fellow of the royal society. As a numeral, *S* was anciently used for seven.

SAAD EDDIN MOHAMMED BEN HASSAN, known also by the appellation of *Khodja Effendi*, the most celebrated of the Turkish historians. He became preceptor to sultan *Amurath III.*; and was subsequently appointed *mufti*, which office he held till his death, about A.D. 1600. He was the author of *The Crown of Histories*, containing an account of all the Turkish emperors to his own times, translated into Italian by *Vincent Brattuti*, and into Latin by *Kollar*. *A. L. Schloezer*, in his *Critico-Historical Amusements*, *Gottingen, 1797, 8vo.*, has given full details of this Chronicle, which has been continued from 1510, where the author concluded it, to 1751, by five other historiographers appointed by the sultans.

SAADE, a town of Arabia, the capital of the mountainous district of *Yemen*, called also the *Sahan*. It is the residence of a chief, who assumes the title of *Imam*; but who finds it difficult to maintain his ground. His revenue arises chiefly from a custom-house here established, at which duties are paid by goods passing into the interior. In the neighbourhood is a fortified height. 368 miles N.N. E. of *Mocha*.

SAAN LOUIS, a town of the Prussian province of the Lower Rhine, fortified by *Vauban*,

under *Louis XIV.*, but ceded to Prussia by a treaty of *Paris* in 1815. During the revolution, this place was called *Sarre Libre*. It is eleven miles north-west of *Saarbruck*, and thirty-four east of *Thionville*, contains 4100 inhabitants, and has manufactures of iron and leather.

SAATZ, a circle of *Bohemia*, contiguous to the *Saxon* frontier, and to the circles of *Leutmeritz*, *Rakonitz*, and *Elnbogen*. Its area is about 820 square miles, is level towards the south, and contains some of the best corn land in *Bohemia*, but the north is traversed by the *Erzgebirge* mountains, in which there are mines of iron, alum, and tin. The woods are here also extensive. Other products of this circle are flax, hops, turf, and coal. There are some cotton manufactures. Population 114,000.

SAATZ, in *Bohemian* *Zatets*, a town of *Bohemia*, on the *Egra*, the chief place of the preceding circle. Population 3800. Eighty-nine miles west by north of *Prague*, and twenty-eight east of *Carlsbad*.

SAAVEDRA. See *CERVANTES*.

SABA, a Dutch island of the *West Indies*, is a great but fruitful rock, four leagues in circuit, without any road for ships, and with but one landing place, at a creek on the south side. One delightful valley produces necessaries for the few inhabitants, and materials for several manufactures; but, being destitute of a port, its commerce is inconsiderable. There is abundance of fish, particularly *bonitos*, caught on the coasts. Rocks appear for some distance on the coast, and vessels of course cannot come in, unless they be very small.

SABÆANS, or *SABÆI*. See *SABIANS*.

SAB'AOTH, *n.s.* Heb. *סבא*. Signifying an army.

Holy Lord God of *sabaoth*; that is, Lord of hosts.
Common Prayer.

SABAZIA, in *Greek* antiquity, were nocturnal mysteries in honor of *Jupiter Sabazius*. All the initiated had a golden serpent put in at their breasts, and taken out at the lower part of their garments, in memory of *Jupiter's* ravishing *Proserpine* in the form of a serpent. There were also other feasts and sacrifices distinguished by this appellation, in honor of *Mithras*, the deity of the Persians.

SABBATARIANS, a sect of Christians, chiefly *Baptists*, who observe the *Jewish* or seventh-day Sabbath, from a persuasion that, being one of the ten commandments, which they contend are all in their nature moral, it was not abrogated by the *New Testament*. They say that *Saturday* must at least be deemed of equal validity for public worship with any day never particularly set apart by *Jesus Christ* and his *Apostles*. In our own country this sect is by no means numerous. They have but two congregations in *London*, if these are not united. In *America*, however, there are many Christians of this persuasion, particularly in *Rhode Island* and *New Jersey*.

SABBATH, *n. s.* } Heb. שַׁבָּת, signifying
SABBATICAL, *adj.* } rest; Fr. *subbat*; Lat. *sab-*
batum. The day appointed by God for public
worship among Jews and Christians: the adject-
ive corresponding.

I purpose,
And by our holy sabbath have I sworn,
To have the due and forfeit of my bond.

Shakspeare

The usurer is the greatest sabbathbreaker, because
his plough goes every Sunday. *Bacon's Essays.*
The sabbathless pursuit of wealth is the present
disease of Great Britain. *Bacon.*

Never any sabbath of release
Could free his travels and afflictions deep.
Daniel's Civil War.

Glad we returned up to the coasts of light,
Ere sabbath ev'ning. *Milton.*
Nor can his blessed soul look down from heaven,
Or break the eternal sabbath of his rest,
To see her miseries on earth. *Dryden.*

The appointment and observance of the sabbatical
year, and, after the seventh sabbatical year, a year
of jubilee, is a circumstance of great moment.

Forbes.

Peaceful sleep out the sabbath of the tomb,
And wake to raptures in a life to come. *Pope.*

SABBATH, Heb. שַׁבָּת, i. e. rest. The seventh
day was so denominated, because in it God had
rested from his works of creation. From that
time the seventh day was set apart for religious
services; and, by a particular injunction, was
afterwards observed by the Hebrews as a holy
day. They were commanded to set it apart for
sacred purposes in honor of the creation being
completed in six days, God resting on the
seventh.

The importance of the institution may be gathered from the different laws respecting it. When the ten commandments were published from Mount Sinai, the law of the Sabbath held a place in what is commonly called the first table, and by subsequent statutes the violation of it was punished with death. Six days were allowed for the service of man; but the seventh God reserved to himself, and appointed it to be observed as a stated time for holy offices, and the duties of piety and devotion. On this day the ministers of the temple entered upon their week; and those who had attended on the temple service the preceding week went out at the same time. New loaves of show-bread were placed upon the golden table, and the old ones taken away. Two lambs for a burnt-offering, with a certain proportion of fine flour mingled with oil, and wine for a libation, were offered. The Sabbath too was celebrated from evening to evening. It began at six in the evening on Friday, and ended at the same time the next day. Concerning the time at which the Sabbath day was first instituted, different opinions have been held, some have maintained that the sanctification of the seventh day, mentioned in Gen ii., is only there spoken of *δια προλεψιν*, or by anticipation; and is to be understood of the Sabbath afterwards enjoined the children of Israel. But it cannot be supposed that the inspired penman would have mentioned the sanctification of the seventh day amongst the primeval transactions, if such sanctification had not taken place until 2500 years afterwards.

From the accounts we have of the religious service practised in the patriarchal age, it appears that, immediately after the fall, when Adam was restored to favor through a mediator, a stated form of public worship was instituted, which man was required to observe, in testimony, not only of his dependence on the Creator, but also of his faith and hope in the promise made to our first parents, and seen afar off. It is no objection to the early institution of the Sabbath that it is not mentioned in the history of the patriarchal age. When Moses wrote the book of Genesis it was unnecessary to relate minutely transactions and institutions already well known by tradition; accordingly we see that his narrative is every where very concise, and calculated only to preserve the memory of the most important facts. The sabbath is first taken notice of as a well known solemnity; and the incidental manner in which it is mentioned is a convincing proof that the Israelites were no strangers to the institution; for, had it been a new one, it must have been enjoined in a positive and particular manner, and the nature of it must have been laid open and explained, otherwise the term would have conveyed no meaning.

The division of time into weeks, or periods of seven days, which obtained so early and almost universally, is a strong indication that one day in seven was always distinguished in a particular manner. God commanded Noah, seven days before he entered the ark, to introduce into it all sorts of living creatures. When the waters of the flood began to abate, Noah sent forth a dove, which, finding no rest for the sole of her foot, returned to him. After seven days he sent forth the dove a second time; again she returned to the ark, &c. This septenary division of time has been, from the earliest ages, uniformly observed over all the eastern world. The Assyrians, Egyptians, Arabians, and Persians, made use of a week, consisting of seven days. Many vain attempts have been made to account for this uniformity; but a practice so general and prevalent could never have taken place had not the septenary distribution of time been instituted from the beginning, and handed down by tradition. From the same source also must the ancient heathens have derived their notions of the sacredness of the seventh day. That they had such notions of it is evident from several passages of the Greek poets, quoted by Aristobulus, a learned Jew, by Clement of Alexandria, and Eusebius.

—εβδομη, ιερον ημαρ. *Hesiod.*
The seventh, the sacred day.

Εβδοματη δ' ηπειτα κατηλυθεν, ιερον ημαρ.
Homer.

Afterwards came the seventh, the sacred day.

That they likewise held the number seven in high estimation has been also shown. The Pythagoreans call it the venerable number, *σεβαστα ασιος*, worthy of veneration, and held it to be perfect and most proper to religion. These facts can be accounted for only by admitting the primeval institution of the Sabbath, as related by Moses in the book of Genesis. That institution was absolutely necessary to preserve among men a sense of religion; and it was renewed to

the Jews at the giving of the law, and its observance enforced by the severest penalties. It was accordingly observed by them with more or less strictness in every period of their commonwealth and kingdom; and there is no one of the institutions of their divine lawgiver which, in their present state of dispersion, they more highly honor. In the time of the Maccabees they carried their respect for the Sabbath so very high that they would not on that day defend themselves from the attacks of their enemies. But afterwards they did not scruple to stand upon their necessary defence, although they would do nothing to prevent the enemy from carrying on their operations. When our Saviour was on earth, it was no sin to loose a beast from the stall, and lead him to water; and, if he had chanced to fall into a ditch, they pulled him out: but now it is absolutely unlawful to give a creature in that situation any other assistance than that of food. Their various ceremonies are so trifling, superstitious, and ridiculous, that we think it would be disgracing a work of science to take up room with them. Vide Buxtorf's *Judaica Synagoga*; and Allen's *Modern Judaism*.

As the seventh day was observed by the Jewish church, in memory of the rest of God after the works of creation, so the first day of the week has always been observed by the Christian church, in memory of the resurrection of Jesus Christ, by which he completed the work of man's redemption on earth, and rescued him from the dominion of him who has the power of death. This day was denominated by the primitive Christians the Lord's Day, or Sunday, but it was never styled the Sabbath; a name solely appropriated to Saturday, or the seventh day, both by sacred and ecclesiastical writers. Of the change from the seventh to the first day of the week, or even of the institution of the Lord's Day festival, there is no account in the New Testament. However, it may be fairly inferred from it that the first day of the week was, in the apostolic age, a stated time for public worship. On this day the apostles were assembled, when the Holy Ghost came down so visibly upon them to qualify them for the conversion of the world. On this day we find St. Paul preaching at Troas, when the disciples came to break bread: and the directions which the same apostle gives to the Corinthians, concerning their contributions for the relief of their suffering brethren, plainly allude to their religious assemblies on the first day of the week. From the consentient evidence and uniform practice of the primitive church, and also from the attestation of Pliny, we find that the first day of the week was observed in the earliest ages as a holy day or festival, in honor of the resurrection of Christ. In the early ages this day was occupied in a constant attendance on all the offices of divine worship. On it they held their religious assemblies, in which the writings of the apostles and prophets were read to the people, and the doctrines of Christianity pressed upon them by the exhortations of the clergy. Solemn prayers and praises were offered up to God, and hymns sung in honor of Christ; the Lord's supper was celebrated; and collections were made for the main-

tenance of the clergy and the relief of the poor. On this day they abstained, as much as they could, from bodily labor. They looked upon it as a day of joy and gladness; and therefore all fasting on it was prohibited, even during Lent, their great annual fast.—Such was the zeal of those times that nothing, no, not the severest persecutions, hindered them from celebrating holy offices on this day; and, when they could not meet in the day time, they assembled in the morning before it was light. When the empire became Christian, Constantine and his successors made laws for the more solemn observation of the Lord's day. They prohibited all prosecutions and pleadings, and other juridical matters, to be transacted on it, and also all unnecessary labor.

SABBATH BREAKING, or profanation of the Lord's day, is punished by the municipal laws of England. The keeping one day in seven holy, as a time of relaxation and refreshment, as well as for public worship, is of great service to a state, considered merely as a civil institution. The laws of king Athelstan forbid all merchandising on the Lord's day, under very severe penalties. And by the statute 27 Henry VI., c. 5, no fair or market shall be held on the principal festivals, Good Friday, or any Sunday (except the four Sundays in harvest), on pain of forfeiting the goods exposed to sale. And by the statute 1 Car. I., c. 1, no persons shall assemble, out of their own parishes, for any sport whatsoever, upon this day; nor, in their parishes, shall use any bull or bear beating, interludes, plays, or other unlawful exercises or pastimes, on pain that every offender shall pay 3s. 4d. to the poor. By statute 29 Car. II., c. 7, no person is allowed to work on the Lord's day, or use any boat or barge, or expose any goods to sale, except meat in public houses, milk at certain hours, and works of necessity or charity, on forfeiture of 5s.

SABBATH DAY'S JOURNEY, a measure, among the ancient Jews, of 729 English paces and three feet; or 2000 cubits; or 3648 feet.

SABBATICAL YEAR, or the year of jubilee, among the ancient Jews, was every seventh year; in which it was unlawful to till the ground, and all slaves were set at liberty, except those who preferred continuing in service to freedom. There was also a grand sabbatical year held by the Jews with uncommon splendor every forty-ninth year: though some commentators assert it was held the fiftieth year. See **JUBILEE**.

SABEANS, in ancient history, a tribe of Arabs, descended from Sheba, the son of Cush, or from Sheba, the son of Raamah, and grandson of Cush. They inhabited the country called Saba or Sheba; they carried off Job's cattle, and were afterwards conquered by Cyrus.

SABEANS, in ecclesiastical history, a sect of Christian heretics, who held mixed doctrines derived from Christianity, Judaism, Mahometanism, and Paganism. They adopted baptism after the example, and in commemoration of, John the Baptist; but did not administer it in the name of the Trinity. They have four sacraments; baptism, the eucharist, orders, and marriage. Both ministers and laity are allowed two wives. They still retain some knowledge of the gospel;

but their superstitious ceremonies and frequent washings are supposed to be of Jewish origin, and derived from the Hemerobaptists, who had a chief of the name of John.

SABELLI, an ancient people of Italy, descended from the Sabines, or, as others say, of the Samnites. They inhabited that part of Italy which lay between the Sabines and the Marsi.

SABELLIANS, in ecclesiastical history, a sect of the third century, who embraced the opinions of Sabellius. They maintained that the Word and the Holy Spirit are only virtues, emanations, or functions of the Deity; and held that he who is in heaven is the Father and Creator of all things, that he, through the virgin, became a child; and that, having accomplished the mystery of our salvation, he diffused himself on the apostles in tongues of fire, and was then denominated the Holy Ghost. This they explained by resembling God to the sun, the illuminative virtue or quality of which was the Word, and its warming virtue the Holy Spirit. The Word, they taught, was darted like a divine ray, to accomplish the work of redemption; and that, being re-ascended to heaven, the influences of the Father were communicated after a like manner to the apostles. They were anathematised in a council held at Constantinople, A. D. 381.

SABELLICUS (Mark Anthony Coccius), a learned Italian, born at a small town upon the Teveron, in the fifteenth century. He became professor of belles lettres at Vicenza, and died in the seventieth year of his age.

SABELLIUS, an ancient philosopher of Egypt, the founder of the sect of the Sabellians, was a native of Libya. He first broached his doctrines in the third century, about the year 255, in Ptolemais. He taught, according to Epiphanius, that the same person is Father, Son, and Holy Ghost; so that there are only three denominations in one hypostasis or subsistence; or, as in man, body, soul, and spirit. This author says that the Sabellians agreed with the Noetians, except in one thing, viz. that they said the Father did not suffer. Theodoret's account of Sabellius is, that he taught the Father, and the Son, and the Holy Spirit, to be one hypostasis or subsistence, and one person with three names; that he speaks of the same sometimes as Father, sometimes as Son, and sometimes as Holy Ghost.

SABIA, a country of Eastern Africa, to the south of Sofala, traversed by a river of the same name, which falls into the Indian Ocean. Slaves, ivory, and gold dust, may be procured here.

SABIANS, or SABBÆANS, an ancient sect of idolaters, who worshipped the sun. Some critics derive the name from the Hebrew Tsaba, a host or army, because they worshipped the host of heaven, the Tsaba hememim, against which idolatry Moses cautions the Israelites. The word is sometimes also written Sabaites, Zabæans, Zabians, Zabaites, Tsabæans, Tsabians, and Tsabaists. Mahomet, in the Koran, and the Arabian authors since him, make frequent mention of them. Beidavius, in his comment on the Koran, represents them as a kind of mean between the Christians and the Magusians, who are the followers of the Magi among the Persians:

he adds, that they pretend to be of the religion of Noah. Some charge them with worshipping the stars; and others the angels' or demons. Maimonides attributes both to them.

Sale, in his preliminary discourse to the Koran, has given the following brief account of the tenets and worship of this sect:—They believe in the existence of one God, though they also pay an adoration to the stars, or the angels and intelligences which they suppose reside in them, and govern the world under the supreme Deity. They endeavour to perfect themselves in the four intellectual virtues, and believe the souls of the wicked men will be punished for 9000 ages, but will afterwards be received to mercy. They are obliged to pray three times a day, before sunrise, before noon, and before sun-set; and in praying they turn their faces, as some say, to the north; according to others to the south, to Mecca, or to the star to which they pay their devotion. They have three fasts in the year; the first lasts thirty days, the second nine days, and the last seven. They offer many sacrifices, of which they eat no part, but wholly burn them. They abstain from beans, garlic, and some other pulse and vegetables.

SABINA (Julia), a Roman lady, who married the emperor Adrian, by advice of Plotina, Trajan's widow. She is celebrated for her virtues, but was ill used by her husband, though she assisted in raising him to the empire. Some say he even poisoned her. She had been thirty-eight years married to him when she died A. D. 138.

SABINE, *n. s.* Fr. *sabine*; Lat. *sabina*. A plant.

Sabine or *savin* will make fine hedges, and may be brought into any form by clipping much beyond trees. *Mortimer.*

SABINE, or SAVIN. See JUNIPERUS.

SABINES, or SABINI, an ancient nation of Italy, reckoned among the Aborigines. Some, however, say they were originally a colony of Spartans, who settled in that part of Italy. Their territories were situated in the neighbourhood of Rome between the Nar and the Anio, and bounded on the north by the Appennines and Umbria; east by the dominions of the Æqui; south by Latium; and west by Etruria. Their chief cities were Cures, Fidenæ, Crustumium, Collatia, Corniculum, Nomentum, and Reate. The greatest part of the neighbouring nations were descended from them; particularly the Sabelli, the Samnites, the Umbrians, Æqui, Brutii, Marsi, &c. Under their king Titus Tatius they made war with the Romans under Romulus, on account of the rape of their virgins; but, after several battles, the war was put an end to by the women on whose account it was commenced, who by this time were attached to their Roman husbands; a peace was concluded, the nations united, and Romulus and Tatius reigned jointly for six years over both nations, till Tatius was killed. See ROME. After this they occasionally revolted, but were finally subdued and incorporated as Roman citizens about A. U. C. 373.

SABINUS, a native of Sparta, the founder of the Sabine nation, to whom he gave name. He was deified after his death.

SABINUS (Flavius), a brother of the emperor Vespasian, famed for his fidelity to Vitellius. He commanded the Roman armies thirty-five years, and governed Rome twelve years; but was killed in an insurrection of the people.

SABINUS (Julius), a Roman commander, who proclaimed himself emperor, in opposition to Vespasian, but, being defeated soon after, hid himself for nine years in a cave, attended by his wife and two faithful domestics; but being discovered he was dragged before Vespasian, and by his order put to death, though his wife endeavoured to excite Vespasian's compassion, by showing him the twins she had borne in the cave.

SABINUS (Francis Floridus), a learned writer, who flourished soon after the restoration of letters in Europe. His chief works are, *In Calumniatores Plauti et aliorum linguæ Latinæ scriptorum apologia*, Basil, 1540; and *Lectionum Successivarum libri tres*. Franc. 1602, 8vo. He died in 1547.

SABINUS (George), a celebrated Latin poet, born in the electorate of Brandenburg in 1508. His poem, *Res gestæ Cæsarum Germanorum*, spread his reputation all over Germany, and procured him the patronage of several princes; he was made professor of the belles lettres at Frankfurt on the Oder, rector of the academy of Königsburg, and counsellor to the elector of Brandenburg. He married two wives, the first was the eldest daughter of the famous reformer Melancthon. He died in 1560. His poems have been often printed.

SABIONCELLO, or **SABIONEIRA**, a peninsula of Austrian Dalmatia, having the islands of Curzolo and Meleda on the south, and on the north the island of Lesina, from which it is separated by a part of the gulf of Venice called the Canal of Sabioncello, or the Stagno. Forty-five miles north-west of Ragusa.

SABIONETTA, a town of Mantuan, now Austrian Italy, with a castle. It was for a time the capital of a principality of the same name, given in 1806, by an imperial decree of Buonaparte, to his sister Paulina, and her husband, the prince Borghese, duke of Guastalla. Nineteen miles S. S. W. of Mantua. Inhabitants 6000.

SABLE, *n. s. & adj.* Fr. *sable*; Swed. *sabel*; Lat. *zibella*. Fur; black.

By this the drooping daylight 'gan to fade,
And yield his room to sad succeeding night,

Who with her *sable* mantle 'gan to shade
The face of earth, and ways of living wight.

Færie Queene.

Furiously running in upon him with tumultuous speech, he violently rought from his head his rich cap of *sables*.

Knolles.

Sable is worn of great personages, and brought out of Russia, being the fur of a little beast of that name, esteemed for the perfectness of the colour of the hairs, which are very black. Hence *sable*, in heraldry, signifies the black colour in gentlemen's arms.

Peacham on Blazoning.

With him introned
Sat *sable*-vested night, eldest of things,
The consort of his reign. *Milton's Paradise Lost.*

They soon begin that tragick play,
And with their smoky cannons banish day:
Night, horror, slaughter, with confusion meet,
And in their *sable* arms embrace the fleet. *Waller.*

Adoring first the genius of the place,
And night, and all the stars that gild her *sable*
throne. *Dryden.*

The peacock's plumes thy tackle must not fail,
Nor the dear purchase of the *sable's* tail. *Gay.*

SABLE, in heraldry, signifies black; and, in engraving, is expressed by horizontal and perpendicular lines crossing each other. Alexander Nisbet says that 'the duke of Anjou, king of Sicily, after the loss of that kingdom, appeared at a tournament in Germany all in black, with his shield of that tincture, *semé de larmes*, i. e. sprinkled with drops of water to represent tears, indicating by that both his grief and loss.

SABLE, in zoology. See **MUSTELA**. The chase of these animals, in the more barbarous times of the Russian empire, was the employ, or rather task of the unhappy exiles in Siberia. As that country is now become more populous, the *sables* have in a great measure quitted it, and retired north and east to live in desert forests and mountains; they live near the banks of rivers, or in the little islands in them; on this account they have by some been supposed to be the *Σαβερων* of Aristotle (*Hist. An. lib. viii. c. 5*), which he classes with the animals conversant among waters. The hunters of *sables* formed themselves into troops, from five to forty each; the last subdivided into lesser parties, and each chooses a leader, but one directs the whole; a small covered boat is provided for each party, loaded with provisions, a dog and net for every two men, and a vessel to bake their bread in; each party has also an interpreter for the country they penetrate into. Every party then sets out according to the course their chief points out; they go against the stream of the rivers, drawing their boats up, till they arrive in the hunting country; there they stop, build huts, and wait till the waters are frozen, and the season commences. They then penetrate into the woods; mark the trees as they advance, that they may know their way back; and in their hunting quarters form huts of trees, and bank up the snow round them; near these they lay their traps; then advance farther, and lay more traps, still building new huts in every quarter, and return successively to every old one to visit the traps and take out the game to skin it, which the chief of the party alone must do; during this time they are supplied with provisions by persons who are employed to bring it on sledges, from the places on the road, where they are obliged to form magazines. The traps are a sort of pit-fall, with a loose board placed over it, baited with fish or flesh; when *sables* grow scarce the hunters trace them in the new-fallen snow to their holes; place their nets at the entrance; and sometimes wait two or three days for the coming out of the animal. The season of chase being over, the hunters re-assemble, make a report to their leader of the number of *sables* each has taken; share the booty; then continue at the head-quarters till the rivers are clear of ice; and afterwards return home.

SABLES, **D'OLUNE DES**, a port in the west of France, in La Vendée. It is well built, and has a harbour capable of admitting vessels of considerable size. The chief traffic is in bay

salt, corn, and cattle. It has an extensive fishery of pilchards. Inhabitants 5200. Forty-five miles south of Nantes.

SABLIERE (Anthony), de Ranbouille de la, a French poet, who died in Paris in 1680. His Madrigals, which are much celebrated, were published after his death by his son.

SABOLCS, a palatinate of the east of Hungary, bounded on the west and north by the river Theyss. It has a superficial extent of 2120 square miles, consisting entirely of level ground; in part covered with sand, and another part with small lakes, of so little depth as to dry up in summer, when soda is found in the bottom. The Theyss often overflows its banks, and causes great ravages; yet this district produces large quantities of corn, tobacco, and fruit. The chief town is Nagy Kallo, and the inhabitants of the palatinate, amounting to 135,000, are Calvinists.

SABON, an island of a triangular form, at the south entrance of the straits of Malacca. It is about twenty-four miles in circumference, and separated from the island of Sumatra by a navigable channel, called the Straits of Sabon. Long. 103° 21' E., lat. 0° 42' N.

SABRE, *n. s.* Fr. *sabre*. I suppose of Turkish original, says Johnson; and we have Span. *sable*; Arab. *seif*. A cymetar; and a short sword with a convex edge; a falchion.

To me the cries of fighting fields are charms;
 Keen be my *sabre*, and of proof my arms;
 I ask no other blessing of my stars,
 No prize but fame, no mistress but the wars.

Dryden.

Seamed o'er with wounds, which his own *sabre*
 gave,

In the vile habit of a village slave,
 The foe deceived.

Pope's Odyssey.

SABRE, a kind of sword with a very broad and heavy blade, thick at the back, and a little falcated or crooked towards the point: it is generally worn by the heavy cavalry. The grenadiers, belonging to the whole of the French infantry, are likewise armed with sabres. The blade is not so long as that of a small sword, but it is nearly twice as broad. French hussars wear the curved ones somewhat longer than those of the grenadiers.

SABRE-TASCHE, from the Ger. *tasche*, pocket. An appointment or part of accoutrement which has been adopted for the use and convenience of dragoon officers. It consists of a pocket which is suspended from the sword-belt on the left side, by three slings to correspond with the belt. It is usually of an oblong shape scolloped at the bottom with a device in the centre, and a broad lace round the edge. The color of it always corresponds with that of the uniform.

SACÆ, an ancient people of Scythia, who inhabited the country east of Bactriana and Sogdiana, north of Mount Imaus. They lived in tents and built no towns. Ptol. vi. 13, Herod. iii. c. 93.

SACÆA, a feast which the ancient Babylonians and other orientals held annually in honor of the deity Anaitas. The Sacæa were in the east what the Saturnalia were at Rome, viz. a feast for the slaves. One of the ceremonies was to choose a prisoner condemned to death, and

allow him all the pleasures and gratifications he could wish before he was carried to execution.

SACCANIA, one of the four provinces into which the Peloponnesus or Morea was divided by the Turks. It is bounded by the province of Zakounia (the ancient Laconia) by the isthmus of Corinth, and the gulfs of Lepanto, Egina, and Napoli, and comprehends the ancient territories of Corinth, Sicyon, and Argos, forming the north-east part of the Morea. See GREECE.

SACCHARINE, *adj.* Lat. *saccharum*. Having the taste, or any other of the chief qualities of sugar.

Manna is an essential *saccharine* salt, sweating from the leaves of most plants.

Arbuthnot on Aliments.

SACCHAROMETER, the name of an instrument for ascertaining the value of worts, and the strength of different kinds of malt liquors. It is merely an hydrometer contrived to ascertain the specific gravity of worts, or rather to compare the weight of worts with that of equal quantities of the liquor employed in the brewery. The principle is as follows:—The menstruum or water employed by the brewer becomes heavier or more dense by the addition of such parts of the materials as have been dissolved or extracted by, and thence incorporated with it: the operation of boiling, and its subsequent cooling, still adds to the density of it by evaporation: so that, when it is submitted to the action of fermentation, it is more dense than at any other period. In passing through this operation a remarkable alteration takes place. The fluid no sooner begins to ferment than its density begins to diminish; and, as the fermentation is more or less perfect, the fermentable matter becomes more or less attenuated; and, in lieu of every particle thus attenuated, a spirituous particle, of less density than water, is produced; so that when the liquor is again in a state of quietude, it is so much specifically lighter than it was before, as the act of fermentation has been capable of attenuating the component parts of its acquired density.

SACCHARUM, the sugar cane, in botany, a genus of the digynia order and triandria class of plants; natural order fourth, gramina: CAL. none but a long down: cor. bivalved. Species eleven; the chief is, *S. officinarum*, called by former botanists *arundo saccharifera*. It is a native of Africa, the East Indies, and of Brazil; whence it was introduced into our West India islands soon after they were settled. For the process of making sugar, see SUGAR.

SACCHI (Andrew), a celebrated painter, born at Rome in 1594. He was the disciple of Francis Albano, whom he afterwards surpassed in taste and correctness. He distinguished himself by his paintings in fresco, and arrived at a high degree of perfection. The works of Sacchi are finished with uncommon care and skill. He died in 1668.

SACCHOLACTIC ACID. See MUCIC ACID.

SACERDOTAL, *adj.* Lat. *sacerdotalis*. Priestly; belonging to the priesthood.

They have several offices and prayers, especially for the dead, in which functions they use *sacerdotalis* *Stillingfleet.*

He fell violently upon me, without respect to my sacerdotal orders.

Dryden's Spanish Fryar.

If ample powers, granted by the rulers of this world, add dignity to the persons intrusted with these powers, behold the importance and extent of the sacerdotal commission.

Atterbury.

SACHEVERELL (Dr. Henry), a clergyman of the Tory faction in the reign of queen Anne; who distinguished himself by his sermons and writings against the dissenters. He owed his consequence, however, to being indiscreetly prosecuted by the house of lords for his assize sermon at Derby, and his sermon on the 5th of November, at St. Paul's, in 1709; in which he asserted the doctrine of non-resistance to government in its utmost extent; and reflected severely on the act of toleration. The high and low church parties were then very violent, and Sacheverell's trial inflamed the high church party to dangerous riots and excesses; he was, however, suspended for three years, and his sermons burned by the common hangman. The Tories being in administration when his suspension expired, he was freed with every mark of honor and public rejoicing; was ordered to preach before the commons on the 29th of May, had the thanks of the house for his discourse, and obtained the valuable rectory of St. Andrew's Holborn.

SACHTLEVEN (Cornelius and Herman), two celebrated Dutch painters. Herman was the most eminent. He was born at Rotterdam, in 1609, and was the disciple of Van Goyen. His pictures are rare and valuable. He died in 1685.

SACK, *n. s. & v. a.* } Sax. *fæc*; Heb. *פֶּז*;

SACK-CLOTH, *n. s.* } Gr. *σακκος*; Lat. *succus*.

It is observable of this word, says Dr. Johnson, that it is found in all languages, and it is therefore conceived to be antediluvian. A bag; a pouch; commonly a large bag; to put in bags; hence to plunder; pillage: and, as a noun substantive, the storm of a town: sack-cloth explains itself.

Thus with sack-cloth I invest my woe,
And dust upon my clouded forehead throw.

Sandys.

Edward Bruce spoiled all the old English pale inhabitants, and sacked and raised all cities and corporate towns.

Spenser.

Vastius caused the authors of that mutiny to be thrust into sacks, and in the sight of the fleet cast into the sea.

Knolles.

Our sacks shall be a mean to sack the city:
And we be lords and rulers over Roan.

Shakspeare. Henry VI.

I'll make thee stoop and bend thy knee,
Or sack this country with a mutiny.

Id.

What armies conquered, perished with thy sword?
What cities sacked?

Fairfax.

Who sees these dismal heaps, but would demand
What barbarous invader sacked the land?

Denham.

If Saturn's son bestows

Thy sack of Troy, which he by promise owes,
Then shall the conquering Greeks thy loss restore.

Dryden.

Now the great work is done, the corn is ground,
The grist is sacked, and every sack well bound.

Betterton.

The pope himself was ever after unfortunate,
Rome being twice taken and sacked in his reign.

South.

The great magazine for all kinds of treasure is the bed of the Tiber: when the Romans lay under the apprehensions of seeing their city sacked by a barbarous enemy, they would take care to bestow such of their riches this way as could best bear the water.

Addison.

Being clad in sackcloth, he was to lie on the ground, and constantly day and night implore God's mercy for the sin he had committed.

Ayliffe's Parergon.

Wood goes about with sackfuls of dross, odiously misrepresenting his prince's countenance.

Swift.

Coarse stuff made of goats hair, of a dark colour, worn by soldiers and mariners; and used as a habit among the Hebrews in times of mourning. Called sackcloth, either because sacks were made of this sort of stuff, or because haircloths were straight and close like a sack.

Calmet.

SACK. *Fr. sec.* Of uncertain etymology. A kind of sweet wine, now brought chiefly from the Canaries. The sack of Shakspeare is believed to be what is now called sherry.

Pleash you drink a cup of sack.

Shakspeare.

The butler hath great advantage to allure the maids with a glass of sack.

Swift.

Snuff the candles at supper on the table, because the burning snuff may fall into a dish of soup or sackposset.

Id.

SACK was a wine used by our ancestors, which some have taken to be Rhenish, and some Canary wine. Venner, in his *Via Recta ad Vitam Longam*, printed in 1628, says 'that sack, taken by itself, is very hot and very penetrative; being taken with sugar, the heat is both somewhat allayed, and the penetrative quality thereof also retarded.' He adds that Rhenish, &c., decline after a year, but sack and the other stronger wines are best when they are two or three years old. It appears probable that sack was not a sweet wine, from its being taken with sugar, and that it did not receive its name from having a saccharine flavor, but from its being originally stored in sacks or borachios. It does not appear to have been a French wine, but a strong wine, the production of a hot climate. Perhaps it was what is called dry mountain, or some Spanish wine of that kind. This is the more probable, as Howell, in his *French and English Dictionary*, 1650, translates sack by *vin d'Espagne*, *vin sec*.

SACKBUT, *n. s.* *Fr. sambuque*; *Span. sacabuche*; *Lat. sambuca*. A kind of pipe.

The trumpets, sackbuts, psalteries, and fife,

Make the sun dance.

Shakspeare. Coriolanus.

The **SACKBUT** is a musical instrument of the wind kind, being a sort of trumpet, though different from the common trumpet both in form and size; it is fit to play a bass, and is contrived to be drawn out or shortened, according to the tone required, whether grave or acute. The Italians call it *trombone*.

SACKVILLE (Thomas), lord Buckhurst, and earl of Dorset, a statesman and poet, was born in 1536. He was sent to Hart Hall in Oxford, in the end of the reign of Edward VI., whence he removed to Cambridge, where he took the degree of M. A., and thence to the Inner Temple, where he studied the law, and was called to the bar. He commenced poet whilst at the universities, and his juvenile productions were much admired. About the fourth year of queen

Mary, he was a member of the house of commons. In 1557 he wrote a poem entitled *The Induction, or the Mirror of Magistrates*. In 1551 his tragedy of *Gorboduc* was acted before queen Elizabeth by the gentlemen of the Inner Temple. In the first parliament of Elizabeth's reign Mr. Sackville was member for Sussex, and for Bucks in the second. In the mean time he made the tour of France and Italy, and in 1566 was imprisoned at Rome, when his father died; by which he became possessed of a very considerable fortune. Having obtained his liberty, he returned to England; and being knighted was created lord Buckhurst. In 1570 he was sent ambassador to France. In 1586 he was one of the commissioners appointed to try the unfortunate Mary queen of Scots; and was employed to report the confirmation of her sentence, and to see it executed. In 1587 he went ambassador to the states general, in consequence of their complaint against the earl of Leicester; who, disliking his impartiality, prevailed on the queen to recal him, and he was confined to his house. In this confinement he continued ten months, when, Leicester dying, he was restored to favor, and in 1580 was installed knight of the garter; but the greatest proof of the queen's partiality for him appeared in 1591, when she caused him to be elected chancellor of the university of Oxford, in opposition to her favorite Essex. In 1598, on the treasurer Burchleigh's death, lord Buckhurst succeeded him, and became in effect prime minister; and when, in 1601, the earls of Essex and Southampton were brought to trial, he sat as lord high steward. On the accession of James I. he had the office of lord high treasurer confirmed to him for life, and was created earl of Dorset. He continued in high favor with the king till his death, which happened suddenly on the 19th of April, 1608, in the council chamber at Whitehall. He was interred in Westminster Abbey.

SACKVILLE (Charles), earl of Dorset, a celebrated wit and poet, was born in 1637. He was one of the libertines of king Charles II.'s court, and indulged in inexcusable excesses. He openly discountenanced the violent measures of James II., and engaged early for the prince of Orange, by whom he was made lord chamberlain of the household, and a member of the privy council. He died in 1706, and left several poetical pieces, which were published among the works of the minor poets in 1749.

SACRAMENT, *n. s.* } Fr. *sacrament*; Lat.
SACRAMENTAL, *adj.* } *sacramentum*. An
SACRAMENTALLY, *adv.* } oath; any ceremony producing an obligation; an outward and visible sign of an inward and spiritual grace: the adjective and adverb corresponding.

As often as we mention a *sacrament*, it is improperly understood; for in the writings of the ancient fathers all articles which are peculiar to Christian faith, all duties of religion containing that which sense or natural reason cannot discern, are most commonly named *sacraments*. *Hooker*.

To make complete the outward substance of a *sacrament*, there is required an outward form, which form *sacramental* elements receive from *sacramental* words. *Id.*

Ten thousand French have ta'en the *sacrament*
To drive their dangerous artillery
Upon no Christian soul but English Talbôt.
Shakspeare. Henry VI.

As we have ta'en the *sacrament*,
We will unite the white rose with the red.
Id. Richard III.

My body is *sacramentally* contained in this *sacrament* of bread. *Hall.*

The law of circumcision was meant by God *sacramentally* to impress the duty of strict purity. *Hammond.*

The words of St. Paul are plain; and, whatever interpretation can be put upon them, it can only vary the way of the *sacramental* efficacy, but it cannot evacuate the blessing. *Taylor.*

Before the famous battle of Cressy, he spent the greatest part of the night in prayer, and in the morning received the *sacrament*, with his son, and the chief of his officers. *Addison.*

SACRAMENT is derived from the Latin *sacramentum*, which signifies an oath, particularly the oath taken by soldiers to be true to their country and general. The words of it, according to Polybius were, *obtemperaturus sum et facturus quicquid mandabitur ab imperatoribus juxta vires*. The word was adopted by the writers of the Latin church, and employed, perhaps with no great propriety, to denote those ordinances of religion by which Christians came under an obligation, equally sacred with that of an oath, to observe their part of the covenant of grace, and in which they have the assurance of Christ that he will fulfil his part of it. Of *sacraments*, in this sense of the word, Protestant churches admit of but two; and it is not easy to conceive how a greater number can be made out from Scripture, if the definition of a *sacrament* be just which is given by the church of England. By that church the meaning of the word is declared to be 'an outward and visible sign of an inward and spiritual grace given unto us, ordained by Christ himself as a means whereby we receive the same, and a pledge to assure us thereof.' According to this definition, baptism and the Lord's supper are certainly *sacraments*; for each answers the definition in the fullest sense of the words. See BAPTISM and SUPPER OF THE LORD. The Romanists, however, add to this number confirmation, penance, extreme unction, ordination, and marriage, holding in all seven *sacraments*; but two of those rites, not being peculiar to the Christian church, cannot be Christian *sacraments*, in contradistinction to the *sacraments* or obligations into which men of all religions enter. Marriage was instituted from the creation (see MARRIAGE); and penance or repentance has a place in all religions which teach that God is merciful and men fallible. The external severities imposed upon penitents by the church of Rome (see PENANCE) may indeed be in some respects peculiar to the discipline of that church; though the penances of the Hindoos are certainly as rigid; but none of these severities were ordained by Christ, as the pledge of an inward and spiritual grace; nor do they bring men under obligations analogous to the meaning of the word *sacramentum*. Confirmation has a better title to the appellation than any of the other five; though it certainly was

not considered as such by the earliest writers of the Christian church, nor does it appear to have been ordained by Christ himself. See CONFIRMATION. Ordination is by many churches considered as a very important rite; but as it is not administered to all men, nor has any particular form appropriated to it in the New Testament, it cannot be considered as a Christian sacrament conferring grace necessary to salvation. Extreme unction is a rite which took its rise from the miraculous powers of the primitive church, vainly claimed by the succeeding clergy. These considerations seem to have some weight with the Romish clergy themselves; for they call the eucharist, by way of eminence, the holy sacrament. Numerous as the sacraments of the Romish church are, a sect of Christians sprung up in England, early in the eighteenth century, who increased their number. The founder was a Dr. Deacon of Manchester, where the remains of it subsisted very lately. According to these men, every rite in the book called the apostolical constitutions was certainly in use among the apostles themselves. Still, however, they make a distinction between the greater and the less sacraments. The greater sacraments are baptism and the Lord's supper. The less are no fewer than ten; viz. :—five belonging to baptism, exorcism, anointing with oil, the white garment, a taste of milk and honey, and anointing with chrism or ointment. The other five are, the sign of the cross, imposition of hands, unction of the sick, holy orders, and matrimony. Of the nature of these less sacraments we need give no account. The sect which taught them, if not extinguished, is in its last wane. It has produced, however, one or two learned men; and its founder's Full, True, and Comprehensive View of Christianity, in two catechisms, is a work which the Christian antiquary will read with pleasure for information, and the philosopher for the materials which it contains for meditation on the workings of the human mind. It was published in 8vo. in 1748.

SACRAMENT, CONGREGATION OF THE HOLY, a religious establishment formed in France, whose founder was Antherius, bishop of Bethlehem, and which, in 1644, received an order from Urban VIII. to have always a number of ecclesiastics ready to exercise their ministry among pagan nations, wherever the pope or congregation de propagandâ should appoint.

SACRAMENT (St.), or Colonia, a city and colony which was held by the Portuguese, opposite the city of Buenos Ayres, on the shore of the La Plata. It has a tolerable port, receiving some shelter from the island of St. Gabriel; yet it is otherwise open and exposed. It was founded by the Portuguese, in the year 1679, under Don Manuel de Lobo, and has occasioned many struggles between Spain and Portugal. The fortress of St. Gabriel, which protects the harbour, is reckoned a strong one. Thirty-three miles north-east from Buenos Ayres.

SACRAMENTARY, an ancient Romish church-book, which contains all the prayers and ceremonies practised at the celebration of the sacraments. It was written by pope Gelasius, and afterwards revised, corrected, and abridged, by St. Gregory.

SACRARIUM, in archæology, a sort of family chapel in the houses of the Romans. It differed from the lararium, inasmuch as that was dedicated to all the household deities without exception, while the sacrarium was devoted to some particular divinity. Cicero, in his oration for Milo, speaks of the sacrarium de bona dea. The name was also given to that particular portion of the ancient temples wherein the sacred things were deposited.

SAC'RED, *adj.* } Fr. *sacré*; Lat. *sacer*.
 SA'CREDLY, *adv.* } Immediately relating to
 SA'CREDNESS, *n. s.* } God; devoted to religious uses; holy; mysterious: the derivatives corresponding.

Those who came to celebrate the sabbath, made a conscience of helping themselves for the honour of that most sacred day. *Macc.*

The honour's sacred, which he talks on now, Supposing that I lack it.

Shakspeare. Antony and Cleopatra

Poet and saint, to thee alone were given,
 The two most sacred names of earth and heaven:

Cowley

Wolves shall succeed for teachers, grievous wolves,

Who all the sacred mysteries of Heaven

To their own vile advantages shall turn. *Milton.*

Smit with the love of sacred song. *Id.*

O'er its eastern gate was raised above

A temple sacred to the queen of love. *Dryden.*

Secrets of marriage still are sacred held;

Their sweet and bitter by the wise concealed. *Id.*

This insinuates the sacredness of power, let the administration of it be what it will. *L'Estrange.*

When God had manifested himself in the flesh, how sacredly did he preserve this privilege! *South.*

In the sanctuary the cloud, and the oracular answers, were prerogatives peculiar to the sacredness of the place. *Id.*

Before me lay the sacred text,
 The help, the guide, the balm of souls perplexed.

Arbutnot.

SACRIFICABLE, *adj.*

Fr. *sacri-*

SAC'RIFICATOR, *n. s.*

fier; Lat. *sa-*

SAC'RIFICE, *v. a., v. n. & n. s.*

crifico. To

SAC'RIFICER,

offer to hea-

SAC'RIFICED, *adj.*

ven; to immo-

late as an atonement or propitiation: with *to*; to offer a propitiatory victim: the act of offering, or thing offered: sacrificator is a redundant synonyme of sacrificer: the other derivatives are sufficiently plain.

Let us go to sacrifice to the Lord. *Exod. iii. 18.*

He that sacrificeth of things wrongfully gotten, his offering is ridiculous. *Eclus. xxxiv. 18.*

Alarbus' limbs are lopt,
 And intrails feed the sacrificing fire.

Shakspeare. Titus Andronicus.

This blood, like sacrificing Abel's, cries

To me for justice. *Id. Richard II.*

Upon such sacrifices

The gods themselves throw incense.

Id. King Lear.

Let us be sacrificers, but not butchers. *Shakspeare.*

Rain sacrificial whisperings in his ear;

Make sacred even his stirrup. *Id. Timon.*

'Tis a sad contemplation that we should sacrifice the peace of the church to a little vain curiosity.

Decay of Piety.

Men from the herd or flock

Of sacrificing bullock, lamb, or kid. *Milton.*

Some mischief is befallen
To that meek man who well had *sacrificed*. *Id.*

God will ordain religious rites
Of *sacrifice*. *Id.*

Although Jephtha's vow run generally for the words, whatsoever shall come forth; yet might it be restrained in the sense to whatsoever was *sacrificable*, and justly subject to lawful immolation, and so would not have *sacrificed* either horse or dog.

Browne's Vulgar Errors.

Not only the subject of *sacrifice* is questionable, but also the *sacrificator*, which the picture makes to be Jephtha. *Browne.*

Tertullian's observation upon these *sacrificial* rites is pertinent to this rule.

Taylor's Worthy Communicant.

When some brawny *sacrificer* knocks,
Before an altar led, an offered ox. *Dryden.*

The breach of this rule, To do as one would be done to, would be contrary to that interest men *sacrifice* to when they break it. *Locke.*

A priest pours wine between the horns of a bull: the priest is veiled after the manner of the old Roman *sacrificers*. *Addison.*

I saw among the ruins an old heathen altar, with this particularly in it, that it is hollowed like a dish at one end; but it was not this end on which the *sacrifice* was laid. *Id.*

Syphax loves you, and would *sacrifice*
His life, nay more, his honour to your service. *Id.*

Condemned to *sacrifice* his childish years
To babbling ignorance, and to empty fears. *Prior.*

A great genius sometimes *sacrifices* sound to sense.
Broome.

A SACRIFICE is an offering made to God on an altar, as an acknowledgment of his power and a payment of homage. Sacrifices (though the term is sometimes used to comprehend all the offerings made to God, or in any way devoted to his service and honor) differ from mere oblations in this, that in a sacrifice there is a real destruction or change of the thing offered; whereas an oblation is only a simple offering or gift, without any such change at all: thus all sorts of tithes and first-fruits, and whatever of men's worldly substance is consecrated to God for the support of his worship and the maintenance of his ministers, are offerings or oblations; and these, under the Jewish law, were either of living creatures or other things: but sacrifices, in the more peculiar sense of the term, were either wholly or in part consumed by fire. Concerning the origin of sacrifices very various opinions have been held. By many the Phœnicians are supposed to have been the authors of them; though Porphyry attributes their invention to the Egyptians.

By modern deists, sacrifices are said to have had their origin in superstition. It is therefore weak (say they) to derive this practice from any particular people; since the same mode of reasoning would lead various nations, without any intercourse with each other, to entertain the same opinions respecting the nature of their gods, and the proper means of appeasing their anger. Men of gross conceptions imagine their deities to be like themselves, covetous and cruel. They are accustomed to appease an injured neighbour by a composition in money; and they endeavour to compound in the same manner with their gods, by rich offerings to their temples and to their priests. The most valuable property of a simple

people is their cattle. These offered in sacrifice are supposed to be fed upon by the divinity, and are actually fed upon by his priests. If a crime is committed which requires the punishment of death, it is accounted perfectly fair to appease the deity by offering one life for another; be cause, by savages, punishment is considered as a debt for which a man may compound, and which one man may pay for another. Hence, they allege, arose the notions of imputed guilt and vicarious atonement.—Had sacrifices never prevailed in the world but among such gross idolaters as worshipped departed heroes, who were supposed to retain in their state of deification all the passions and appetites of their mortal state, this account of the origin of that mode of worship would have been perfectly satisfactory. But we know from the most incontrovertible authority, that sacrifices were in use among people who worshipped the true God, and who must have had very correct notions of his attributes. Now we think it impossible that such notions could have led any man to fancy that the taking away of the life of a harmless animal, or the burning of a cake or other fruits of the earth in the fire, would be acceptable to a Being self-existent, omnipotent, and omniscient, who can neither be injured by the crimes of his creatures, nor receive any accession of happiness.

Some persons who admit the authenticity of the Jewish and Christian sacrifices, and firmly rely on the atonement made by Christ, are yet unwilling to allow that sacrifices were originally instituted by God. Of this opinion were St. Chrysostom, Spencer, Grotius, and Warburton, as were likewise the Jewish Rabbies, Maimonides, R. Ievi, and Ben Gerson. The greater part of these writers maintain that sacrifices were at first a human institution, and that God, to prevent their being offered to idols, introduced them into his service, though he did not approve of them as good in themselves, or as proper rites of worship. Warburton's theory of sacrifice is more plausible. According to this ingenious prelate, sacrifices had their origin in the sentiments of the human heart, and in the ancient mode of conversing by action in aid of words. Gratitude to God for benefits received is natural to the mind of man, as well as his bounden duty. 'Expiatory sacrifices,' he says, 'were in their own nature intelligible. Here some chosen animal, precious to the repenting criminal, who deprecates the Deity who is to be appeased, was offered up and slain at the altar, an action which in all languages speaks to this purpose:—I confess my transgressions at thy footstool, O my God! and with the deepest contrition implore thy pardon. And I own that I myself deserve the death which I now inflict on this animal.' See Divine Legation, B. ix. c. 2. This system of sacrifice, which the bishop thinks so well supported by the most early movements of simple nature, we admit to be ingenious, but by no means satisfactory. The two chief observances in the Jewish ritual were the sabbath and sacrifices. Though the distinction of weeks was well known over all the eastern world, the Hebrews, during their residence in Egypt, were probably very negligent in their observance of

the sabbath. To enforce a religious observance of that sacred day it became necessary to inform them of the time and occasion of its first institution, that they might keep it holy in memory of the creation; but, in a country like Egypt, the people were in danger of holding sacrifices in too high rather than too low veneration, so that there was not the same necessity for mentioning explicitly the early institution of them. It was sufficient that they knew the divine institution of their own sacrifices, and the purposes for which they were offered. 'Faith,' says the apostle Paul, is the substance of things hoped for, the evidence of things not seen,' and comes not by reasoning, but by hearing. What things then were they of which Abel, the first sacrificer, had heard, for which he hoped, and in the faith of which he offered sacrifice? Undoubtedly it was a restoration to that immortality which was forfeited by the transgression of his parents. Of such redemption an obscure intimation had been given to Adam, in the promise that the seed of the woman should bruise the head of the serpent; and it was doubtless to impress upon his mind in more striking colors the manner in which this was to be done that bloody sacrifices were first instituted. As long as such rites were thus understood they constituted a perfectly rational worship, as they showed the people that the wages of sin is death; but when men sunk into idolatry, and lost all hopes of a resurrection from the dead, the slaughtering of animals to appease their deities was a practice grossly superstitious. It rested in itself, without pointing to any farther end, and the grovelling worshippers believed that by their sacrifices they purchased the favor of their deities. When once this notion was entertained, human sacrifices were soon introduced. By the Jewish law these abominable offerings were strictly forbidden, and the whole ritual of sacrifice restored to its original purity.

All Christian churches have, till very lately, agreed in believing that the Jewish sacrifices served, among other uses, for types of the death of Christ and the Christian worship. Many are of opinion that they were likewise federal rites, as they certainly were considered by the ancient Romans. (Liv. 21, 45). Of the various kinds of Jewish sacrifices, and the subordinate ends for which they were offered, a full account is given in the books of Moses. When an Israelite offered a loaf or a cake, the priest broke it into two parts; and, setting aside that half which he reserved for himself, broke the other into crumbs, poured oil, wine, incense, and salt upon it, and spread the whole upon the fire of the altar. If these offerings were accompanied with the sacrifice of an animal, they were thrown upon the victim to be consumed along with it. If the offerings were of the ears of new corn, they were parched at the fire, rubbed in the hand, and then offered to the priest in a vessel, over which he poured oil, incense, wine, and salt, and then burnt it upon the altar, having first taken as much of it as of right belonged to himself. The principal sacrifices among the Hebrews consisted of bullocks, sheep, and goats: but doves and turtles were accepted from those who were not able to bring the other; these animals were to be perfect, and without blemish. The rites of

sacrificing were various, and are very minutely described in the books of Moses.

The manner of sacrificing among the Greeks and Romans was as follows:—In the choice of the victim, they took care that it was without blemish or imperfection; its tail was not to be too small at the end; the tongue not black, nor the ears cleft; and the bull must never have been yoked. The victim being pitched upon, they gilt his forehead and horns, especially if a bull, heifer, or cow. The head they also adorned with a garland of flowers, a woollen infula or holy fillet, whence hung two rows of chaplets with twisted ribands; and over the middle of the body a kind of stole, hung down on each side; the lesser victims were only adorned with garlands and bundles of flowers, together with white tufts or wreaths. The victims, thus prepared, were brought before the altar: the lesser being driven to the place, and the larger led by a halter; when, if they made any struggle, or refused to go, the resistance was taken for an ill omen, and the sacrifice often delayed. The victim, thus brought, was carefully examined, to see that there was no defect in it; then the priest, clad in his sacerdotal habit, and accompanied with the sacrificers and other attendants, and being washed and purified according to the ceremonies prescribed, turned to the right hand, and went round the altar, sprinkling it and those who were present with meal and holy water. Then the crier proclaimed with a loud voice, Who is here? To which the people replied, Many and good. The priest then having exhorted the people to join with him, by saying Let us pray, confessed his own unworthiness, acknowledging that he had been guilty of divers sins; for which he entreated pardon of the gods, hoping that they would grant his requests, accept the oblations offered, and send them all health and happiness; and to this general form added petitions for such particular favors as were then desired. The priest then took a cup of wine; and, having tasted it, caused his assistants to do the like; and then poured forth the remainder between the horns of the victim. Then the priest or the crier, or sometimes the most honorable person in the company, killed the beast, by knocking it down or cutting its throat. If the sacrifice was in honor of the celestial gods, the throat was turned up towards heaven, but if they sacrificed to the heroes or infernal gods, the victim was killed with its throat towards the ground. If by accident the beast escaped the stroke, leaped up after it, or expired with pain and difficulty, it was thought to be unacceptable to the gods. The beast being killed, the priest inspected its entrails, and made predictions from them. They then poured wine and frankincense into the fire, to increase the flame, and then laid the sacrifice on the altar; which in the primitive times was burnt whole to the gods, and thence called a holocaust; but in after-times only part of the victim was consumed in the fire, and the remainder reserved for the sacrificers; the thighs, and sometimes the entrails, being burnt to their honor, the company feasted upon the rest. During the sacrifice, the priest, and the person who gave the sacrifice, jointly prayed, laying their hand upon the altar. Sometimes they

played upon musical instruments in the time of the sacrifice, and on some occasions they danced round the altar, singing sacred hymns in honor of the gods.

Concerning the origin of human sacrifices various opinions have been formed. When men had indulged the fancy of bribing their gods by sacrifice, it was natural for them to think of enhancing the value of the atonement by the cost and rarity of the offering, and thus at last they offered that which they conceived to be the most precious of all, a human sacrifice. 'It was customary,' says Sanchoniathon, 'in ancient times, in great and public calamities before things became incurable, for princes and magistrates to offer up in sacrifice to the avenging demons the dearest of their offspring.' Sanchoniathon wrote of Phœnicia; but the practice prevailed in every nation of which we have received any ancient account. The people of Dumah, in particular, sacrificed every year a child, and buried it underneath an altar; for they did not admit of images. The Persians buried people alive. Hamestris, the wife of Xerxes, entombed twelve persons alive under ground. It would be endless to enumerate every city and province where these dire practices obtained. The Cyprians, the Rhodians, the Phœceans, the Ionians, those of Chios, Lesbos, Tenedos, all offered human sacrifices. The natives of the Tauric Chersonesus offered up to Diana every stranger whom chance threw upon their coast. Hence arose that just expostulation of Euripides in his *Iphigenia*, upon the inconsistency of the proceeding. *Iphigenia* wonders, as the goddess delighted in the blood of men, that every villain and murderer should be privileged to escape, nay, driven from the threshold of the temple; whereas, if an honest and virtuous man chanced to stray thither, he was only seized upon, and put to death. The Pelasgi, in a time of scarcity, vowed the tenth of all that should be born to them for a sacrifice, to procure plenty. Aristomenes the Messenian slew 300 noble Lacedæmonians, among whom was Theopompus the king of Sparta, at the altar of Jupiter at Ithome. The Lacedæmonians did not fail to make ample returns, and offered the like number of victims to Mars. Their barbarous festival of the *Diamastigosis* is well known. See *DIAMASTIGOSIS*. Phylarchus, as quoted by Porphyry, says that of old every Grecian state made it a rule, before they marched against an enemy, to solicit a blessing on their undertakings by human victims. The Romans were accustomed to the like sacrifices. They both devoted themselves to the infernal gods, and constrained others to submit to the same horrid doom. Hence we read in Livy that, in the consulate of Æmilius Paulus and Terentius Varro, two Gauls, a man and a woman, and two Greeks were buried alive at Rome in the ox-market. He says it was a sacrifice not originally of Roman institution; yet was often practised there by public authority. Plutarch mentions a similar instance a few years before, in the consulship of Flaminius and Furius. Caius Marius offered up his own daughter as a victim to the *Dii Averrunci*, to procure success in a battle against the *Cimbri*; as we are

informed by Dorotheus, quoted by Clemens, and by Plutarch, who says that her name was Calpurnia. Cicero, mentioning this custom as common in Gaul, adds that it prevailed among the people even at the time he was writing; and Pliny says that it had then, and not very long, been discouraged. For there was a law enacted when Lentulus and Crassus were consuls, so late as A. U. C. 657, that there should be no more human sacrifices. They were, however, again offered, though they became not so general. For Augustus Cæsar, when Perusia surrendered during the second triumvirate, offered up, upon the Ides of March, 300 persons, of the equestrian and senatorial order, to the manes of his uncle Julius Cæsar. Even in Rome this custom was revived: and Porphyry assures us that in his time a man was every year sacrificed at the shrine of Jupiter Latiælis. Heliogabalus offered similar victims to the Syrian deity which he introduced among the Romans. The same is said of Aurelian. The Gauls and Germans were so devoted to this shocking custom that no business of any moment was transacted among them without the blood of men. They were offered up to Hesus, Taranis, Thautates, &c. These deities are mentioned by Lucan. The altars of these gods were generally situated in the depth of woods, that the gloom might add to the horror of the operation. The persons devoted were led thither by the Druids, who presided at the solemnity, and performed the cruel office. Tacitus mentions the cruelty of the *Hermunduri*, in a war with the *Catti*, wherein they had greatly the advantage; at the close of which they made one general sacrifice of all their prisoners. The remains of the legions under Varrus suffered the same fate. There were many places destined for this purpose all over Gaul and Germany; but especially the woods of *Arduenna* (now *Ardennes*), and the great *Hercynian* forest; a wild that extended above thirty days' journey in length. The places set apart for this solemnity were held in the utmost reverence. Lucan mentions a grove of this sort near *Marsilia*, which even the Roman soldiers were afraid to violate, though commanded by Cæsar. Claudian compliments *Stilicho* that, among other advantages accruing to the Roman armies through his conduct, they could now venture into the awful forest of *Hercynia*, and follow the chace in those so much dreaded woods. These practices prevailed among all the nations of the north. The *Massagetæ*, the *Scythians*, the *Getes*, the *Sarmatians*, all the various nations upon the Baltic, particularly the *Suevi* and *Scandinavians*, held it as a fixed principle that their security could not be obtained but at the expense of the lives of others. Their chief gods were *Thor* and *Woden*, whom they thought they could never sufficiently glut with blood. They had many celebrated places of worship; especially in the island of *Rugen*, near the mouth of the *Oder*; and in *Zealand*, and among the *Semnonæ* and *Naharvalli*. But the most frequented was at *Upsal*; where there was every year a grand solemnity, which continued for nine days, during which they sacrificed animals of all sorts; but the most acceptable and numerous victims

were men. Of these none were esteemed so auspicious a sacrifice as the prince of the country. When the lot fell for the king to die, it was received with universal joy; as it once happened in the time of a famine, when they cast lots, and it fell to king Domalder to be the people's victim; and he was accordingly put to death. They did not spare their own children. Harold the son of Gunild slew two of his sons to obtain, says Verstegan, 'such a tempest at sea, as should break and disperse the shipping of Harold king of Denmark.' Another king slew nine sons to prolong his own life. Adam Bremensis, speaking of the awful grove at Upsal where these horrid rites were celebrated, says that there was not a single tree but was revered, as if gifted with some portion of divinity; because they were stained with gore and foul with human putrefaction. The same is observed by Scheiffer in his account of this place. The manner in which the victims were slaughtered was diverse in different places. Some of the Gaulish nations chined them with the stroke of an axe. The Celtæ placed the man who was to be offered for a sacrifice upon a block or an altar, with his breast upwards, and with a sword struck forcibly across the sternum; then tumbling him to the ground, from his agonies and convulsions, as well as from the effusion of blood, they formed a judgment of future events. The Cimbri ripped open the howels; and from them they pretended to divine. In Norway they beat men's brains out with an ox-yoke. In Iceland they dashed them against an altar of stone. In many places they transfixed them with arrows. After they were dead, they suspended them upon the trees, and left them to putrefy. At one time seventy carcases of this sort were found in a wood of the Scevi. Dithmar of Mersburg speaks of a place called Ledur in Zealand, where there were every year ninety-nine persons sacrificed to the god Swantowite. During these bloody festivals a general joy prevailed, and banquets were most royally served. They fed, caroused, and gave a loose to indulgence, which at other times was not permitted. Their servants were numerous, who attended during the term of their feasting, and partook of the banquet. But, at the close of all, they were smothered in the same pool, or otherwise made away with. On which Tacitus remarks how great an awe this circumstance must necessarily infuse into those who were not admitted to these mysteries. They imagined that there was something mysterious in the number nine: for which reason these feasts were in some places celebrated every ninth year, in others every ninth month; and continued for nine days. When all was ended, they washed the image of the deity in a pool; and then dismissed the assembly. These accounts are handed down from a variety of authors in different ages; many of whom were natives of the countries which they describe, and to which they seem strongly attached. The like custom prevailed to an excessive degree at Mexico (see MEXICO), and even under the mild government of the Peruvians; and in most parts of America. But, among the nations of Canaan, the victims were peculiarly chosen.

Their own children, and whatever was nearest and dearest to them, were deemed the most worthy offering to their gods. The Carthaginians, who were a colony from Tyre, carried with them the religion of their country, and instituted the same worship in the parts where they settled. It consisted in the adoration of several deities, but particularly of Kronus, to whom they offered human sacrifices, and especially children. If the parents were not at hand to make an immediate offer, the magistrates did not fail to make choice of those who were most fair and promising. Upon a check being received in Sicily, Hamilcar laid hold of a boy, and offered him on the spot to Kronus; and at the same time drowned a number of priests to appease the deity of the sea. The Carthaginians, upon a great defeat of their army by Agathocles, imputed their miscarriages to the anger of this god, and seized at once 300 children of the nobility, and offered them for a sacrifice; 300 more yielded themselves voluntarily, and were put to death with the others. The Egyptians chose the most handsome persons to be sacrificed. The Albanians pitched upon the best man of the community, and made him pay for the wickedness of the rest. If a person had an only child, it was the more liable to be sacrificed, as being esteemed more acceptable to the deity, and more efficacious to the general good. Those who were sacrificed to Kronus were thrown into the arms of a molten idol, which stood in the midst of a large fire, and was red hot. The arms of it were stretched out, with the hands turned upwards, as it were to receive them; yet sloping downwards, so that they dropt thence into a glowing furnace below. To other gods they were otherwise slaughtered, often by the very hands of their parents. They embraced their children with great fondness, and encouraged them in the gentlest terms, that they might not be appalled at the sight of the hellish process; begging of them to submit with cheerfulness to this fearful operation. If there was any appearance of a tear rising, or a cry unawares escaping, the mother smothered it with her kisses, that there might not be any show of backwardness or constraint, but the whole be a free-will offering. These cruel endearments over, they stabbed them to the heart, or otherwise opened the sluices of life; and with the blood warm, as it ran, besmeared the altar and the grim visage of the idol. These were the customs which the Israelites learned of the people of Canaan, and for which they are upbraided by the Psalmist (cvi. 34—39). These cruel rites, practised in so many nations, made Plutarch doubt, 'Whether it would not have been better for the Galatæ, or for the Scythians to have had no tradition or conception of any superior beings, than to have formed to themselves notions of gods who delighted in the blood of men; of gods who esteemed human victims the most acceptable and perfect sacrifice. Would it not, says he, have been more eligible for the Carthaginians to have had the atheist Critias, or Diagoras their law-giver, at the commencement of their polity, and to have been taught that there was neither god nor demon, than to have sacrificed in the man-

ner they were wont to the god whom they adored?' 'The mother, he adds, who sacrificed her child stood by, without any seeming sense of what she was losing, and without uttering a groan. If a sigh did escape she lost all the honor which she proposed to herself in the offering, and the child was notwithstanding slain. All the time of this ceremony, while the children were murdering, there was a noise of clarions and tabors sounding before the idol, that the cries and shrieks of the victims might not be heard.' 'Tell me now,' adds Plutarch, 'if the monsters of old, the Typhons, and the giants, were to expel the gods, and to rule the world in their stead; could they require a service more horrid than these infernal rites and sacrifices?'

SAC'RILEGE, *n. s.* } Fr. *sacrilege*; Lat.
SACRILE'GIOUS, *adj.* } *sacrilegium*. The
SACRILEGIOUSLY, *adv.* } crime of appropriating what is devoted to religion, or of violating or profaning things sacred: the adjective and adverb corresponding.

By what eclipse shall that sun be defaced,
What mine hath erst thrown down so fair a tower,
What *sacrilege* hath such a saint disgraced?

Sidney.

Then 'gan a cursed hand the quiet womb
Of his great grandmother with steel to wound,
And the hid treasures in her sacred tomb
With *sacrilege* to dig. *Faerie Queene.*
To *sacrilegious* perjury should I be betrayed,
I should account it greater misery. *King Charles.*

When these evils befel him, his conscience tells
him it was for *sacrilegiously* pillaging and invading
God's house. *South.*

We need not go so many ages back to see the vengeance of God upon some families, raised upon the ruins of churches, and enriched with the spoils of *sacrilege*. *Id.*

Blasphemy is a maleficion, and a *sacrilegious* detraction from the Godhead. *Ayliffe's Parergon.*
Still green with bays each ancient altar stands,
Above the reach of *sacrilegious* hands. *Pope.*

SACR'ING, *part.* } A participle of the
SACRIST, } French *sacrer*. The verb
SACRISTAN, } is not used in English.
SACRISTY. } Consecrating; a sacrist
or sacristan (Fr. *sacristain*) is one who has the care of consecrated things: sacristy the place where they are kept.

I'll startle you,
Worse than the *sacring* bell.

Shakspeare. Henry VIII.

The *sacring* of the kings of France is the sign of their sovereign priesthood as well as kingdom, and in the right thereof they are capable of holding all vacant benefices. *Temple.*

Bold Amycus from the robbed vestry brings
A sounce that hung on high,
With tapers filled to light the *sacristy*. *Dryden.*
A third apartment should be a kind of *sacristy*
for altars, idols, and sacrificing instruments. *Addison.*

A *sacrist* or treasurer are not dignitaries in the church of common right, but only by custom. *Ayliffe's Parergon.*

SACROBOSCO (Joannes de), or John Halifax, a celebrated mathematician of the thirteenth century, said by English biographers to have been born at Halifax in Yorkshire, but both

Scots and Irish writers claim him as their countryman. After receiving his education at Oxford, he entered into orders, and went to Paris, where he died in 1256. He wrote, 1. *De Sphæra Mundi*; 2. *De Anni Ratione*; 3. *De Algorismo*.

SACRUM, or Os basilare, the sacred bone, so called from its being offered in sacrifice by the ancients, or perhaps from its supporting the organs of generation, which they considered as sacred. In young subjects it is composed of five or six pieces, united by cartilage; but in more advanced age it becomes one bone, in which, however, the marks of the former separation may still be easily distinguished. Its shape has been sometimes compared to an irregular triangle; and sometimes, and perhaps more properly, to a pyramid, flattened before and behind, with its basis placed towards the lumbar vertebræ, and its point terminating in the coccyx. See ANATOMY.

SAD, *adj.* } Of this word, so frequent in
SAD'DEN, *v. a.* } the language, the etymology is
SAD'LY, *adv.* } not known, says Johnson.
SAD'NESS, *n. s.* } Goth. *sat*, grief.—Thomson.
Sorrowful; full of grief: hence heavy; gloomy; bad; cohesive: to sadden is to make sad: and the adverb and noun substantive correspond.

Be not as the hypocrites of a *sad* countenance.

Matthew.

Do you think I shall not love a *sad* Pamela so
well as a joyful? *Sidney.*

With that his hand, more *sad* than lump of lead,
Uplifting high, he weened with Morddure,
His own good sword, Morddure to cleave his head.

Faerie Queene.

My father has gone wild into his grave;
For in his tomb lie my affections;
And with his spirits *sadly* I survive,
To mock the expectations of the world.

Shakspeare. Henry IV.

It ministreth unto men, and other creatures, all celestial influences; it dissipateth those *sad* thoughts and sorrows which the darkness both begetteth and maintaineth. *Raleigh.*

If it were an embassy of weight, choice was made of some *sad* person of known judgment and experience, and not of a young man, not weighed in state matters. *Bacon.*

A *sad* wise valour is the brave complexion
That leads the van, and swallows up the cities:
The giggler is a milk-maid, whom infection,
Or a fired beacon, frighteth from his ditties.

Herbert

The soul receives intelligence
By her near genius of the body's end,
And so imparts a *sadness* to the sense.

Daniel's Civil War.

A passionate regret at sin, a grief and *sadness* of its memory, enter into God's roll of mourners.

Decay of Piety.

And let us not be wanting to ourselves,
Lest so severe and obstinate a *sadness*
Tempt a new vengeance. *Denham's Sophy.*

Thoughts in my unquiet breast are risen,
Tending to some relief of our extremes,
Or end, tho' sharp and *sad*, yet tolerable. *Milton.*
Up into heaven, from Paradise in haste
Th' angelic guards ascended, mute and *sad*. *Id.*

Dim *sadness* did not spare
Celestial visages. *Id.*

Crystal, in its reduction into powder, hath a vale

Q

and shadow of blue; and in its coarse pieces is of a sadder hue than the powder of Venice glass.

Browne's Vulgar Errors.

I met him accidentally in London in sad coloured c.oathes, far from being costly.

Walton's Life of Bishop Sanderson.

Scarce any tinging ingredient is of so general use as woad, or glastum; for though of itself it dye but a blue, yet it is used to prepare cloth for a green, and many of the sadder colours, when the dyers make them last without fading.

Boyle.

He sadly suffers in their grief,
Out-weeps an hermit, and out-prays a saint.

Dryden.

If the subject be mournful, let every thing in it have a stroke of sadness.

Id.

Woad or wade is used by the dyers to lay the foundations of all sad colours.

Mortimer's Husbandry.

Marl is binding, and saddening of land is the great prejudice it doth to clay lands.

Id.

We may at present easily see, and one day sadly feel.

South.

These qualifications make him a sad husband.

Addison.

Her gloomy presence saddens all the scene,
Shades every flower, and darkens every green;
Deepens the murmurs of the falling floods,
And breathes a browner horror on the woods.

Pope.

See in her cell sad Eloisa spread,
Propped on some tomb, a neighbour of the dead.

Id.

SAD'DLE, *n. s.* & *v. a.* } Sax. *raðl*; Goth.
SAD'DLE-BACKED, *adj.* } *seda*; Dan. and
SAD'DLE-MAKER, *n. s.* } Belg. *sadel*; Wel.
SAD'DLER. } *sadell*. The seat

which is put upon a horse: to cover with a saddle; to burden: saddle-backed is defined in the extract: saddle-maker and saddler, a manufacturer of saddles.

I will saddle me an ass, that I may ride thereon.

2 Sam.

His horse hipped, with an old moth-eaten saddle,
and the stirrups of no kindred

Shakespeare. Taming of the Shrew.

Sixpence that I had

To pay the saddler for my mistress' crupper,
The saddler had it.

Id. Comedy of Errors.

The law made for apparel, and riding in saddles,
after the English fashion, is penal only to Englishmen.

Davies.

Rebels, by yielding, do like him, or worse,
Who saddled his own back to shame his horse.

Cleveland.

The utmost exactness in these belongs to farriers,
saddlers, and smiths.

Digby.

One hung a pole-ax at his saddle bow,
And one a heavy mace.

Dryden's Knight's Tale.

Resolved for sea, the slaves thy baggage pack,
Each saddled with his burden on his back;
Nothing retards thy voyage.

Dryden.

Horses, saddle-backed, have their backs low, and a raised head and neck.

Farrier's Dictionary.

No man, sure, e'er left his house,
And saddled Ball, with thoughts so wild,

To bring a midwife to his spouse,
Before he knew she was with child.

Prior.

The smith and the saddler's journeyman ought to partake of your master's generosity.

Swift's Directions to the Groom.

SADDLE, in archaiology. In the earlier ages the Romans used neither saddle nor stirrups, and hence the Roman cavalry were subject to

sundry maladies in the hips and legs from the want of some support for their feet. Hippocrates observes that the Scythians, who were much on horseback, were incommoded by defluxions in the legs from the same cause. In less remote times, the Romans placed upon their horses a square pannel, or species of covering which enabled them to sit less hardly. This they termed ephippium.

The saddles now chiefly in use are:—The running saddle, which is a small one with round skirts. The Burford saddle, which has the seat and the skirts both plain. The pad saddle, of which there are two sorts, some made with burs before the seat, and others with bolsters under the thighs. The French pad saddle, of which the burs come wholly round the seat. The portmanteau saddle, that has a cantle behind the seat, to keep the portmanteau from the back of the rider. A war saddle, which has a cantle and a bolster behind and before; also a fair bolster. The pack saddle, a saddle upon which loads may be carried

The several parts of a saddle are too well known to require any minute description in this place.

SADDUCEES, a sect among the ancient Jews respecting whose origin there are various opinions. Epiphanius and others contend that they took their rise from Dositheus, a sectary of Samaria, and their name from the Hebrew word *סַדֵּי*, just, from the great justice and equity which they showed in their actions. In the Jewish Talmud we are told that the Sadducees derived their name from Sadoc, or Zadoc, and that the sect arose about 260 years before Christ, in the time of Antigonus of Socho, president of the Sanhedrim at Jerusalem, and teacher of the law. He had often in his lectures taught his scholars that they ought not to serve God as slaves do their masters, from the hope of a reward, but merely out of filial love for his own sake; from which Sadoc and Baithas inferred that there were no rewards after this life. They therefore separated from their master, and taught that there was no resurrection nor future state. This new doctrine quickly spread, and gave rise to the sect of Sadducees, which in many respects resembled the Epicureans. Dr. Prideaux thinks that the Sadducees were at first no more than what the Karaites are now; that is, they would not receive the traditions of the elders, but stuck to the written word only; and, the Pharisees being great promoters of those traditions, these two sects became opponents. Afterwards the Sadducees imbibed other doctrines, they denied the resurrection of the dead, and the existence of angels, and of the spirits or souls of men departed. (Matt. xxii. 23, Acts xxiii. 8). They held that there is no spiritual being but God only; that as to man, this world is his all. They did not deny but that we had reasonable souls; but they maintained that these were mortal; and that what is said of the existence of angels, and of a future resurrection, is nothing but illusion. It is also said that they rejected the prophecies. The Sadducees observed the law themselves, and caused it to be observed by others with the utmost rigor. They admitted of

none of the traditions, explications, or modifications of the Pharisees; they kept only to the text of the law; and maintained that only what was written was to be observed. The Sadducees are accused of rejecting all the books of Scripture except those of Moses. But Scaliger vindicates them from this reproach, and observes that they did not appear in Israel till after the canon was completed; and that, if they had been to choose out of the canonical Scriptures, the Pentateuch was less favorable to them than any other book, since it often mentions angels. Besides, the Sadducees were present in the temple, where the books of the prophets were daily read, and were in the chief employments of the nation; many of them were even priests. Menasseh Ben Israel says, expressly, that they did not reject the prophets, but that they explained them in a sense very different from that of the other Jews. Josephus assures us that they denied destiny or fate; alleging that these were only sounds void of sense, and that all the good or evil that happens to us is in consequence of the good or evil side we have taken, by the free choice of our will. They said, also, that God was far removed from doing or knowing evil, and that man was the absolute master of his own actions. Yet it is certain they were not only tolerated among the Jews, but were admitted to the high priesthood itself. John Hyrcanus, high priest, separated from the Pharisees, and went over to this sect; and gave strict command to the Jews, on pain of death, to receive the maxims of this sect. Aristobulus and Alexander Jannæus, sons of Hyrcanus, favored the Sadducees; and Maimonides assures us that under Alexander Jannæus they possessed all the offices of the Sanhedrim, and that there only remained of the party of the Pharisees Simon the son of Secra. Caiaphas, who condemned Jesus Christ, was a Sadducee, as well as Ananus the younger, who put to death St. James. The modern Jews hold as heretics that small number of Sadducees that are among them. The sect of the Sadducees was much reduced by the destruction of Jerusalem, and by the dispersion of the Jews; but it revived afterwards. At the beginning of the third century it was so formidable in Egypt that Ammonius wrote against them, or rather against the Jews, who tolerated the Sadducees, though they denied the fundamental points of their religion. The emperor Justinian mentions the Sadducees in one of his acts, banishes them out of his dominions, and condemns them to the severest punishment, as people that maintained atheistical and impious tenets. Ananus, or Ananus, a disciple of Juda, son of Nachman, a famous rabbi of the eighth century, declared himself in favor of the Sadducees, and strenuously defended them; as did also, in the twelfth century, Alpharag, a Spanish rabbi. This doctor wrote against the Pharisees, and maintained that the purity of Judaism was only to be found among the Sadducees; that the traditions avowed by the Pharisees were useless; and that the ceremonies, which they had multiplied without end, were an insupportable yoke.

SADLER (Anthony), D. D., an eminent English divine; born at Chilton, in Wiltshire,

in 1610. He took his degree in 1665, and was appointed one of the king's chaplains by Charles II. He died in 1680.

SADLER (William Windham), an ingenious aéronaut, who fell a victim to the practice of his profession. On the 30th of September, 1824, he ascended from the neighbourhood of Blackburn in Lancashire; and in the descent, the car being driven against a chimney, Mr. Sadler was thrown out, at the height of about forty yards from the ground, when his skull was fractured, and he was otherwise so injured as to occasion his death, in the twenty-eighth year of his age. He had made thirty aérial voyages, in one of which he attempted to cross the Irish channel, but, from the obstruction of various currents, failed. He possessed considerable talents as a chemist and engineer, in which capacities he was employed by the first gas company established at Liverpool, where he had also fitted up warm, medicated, and vapor baths.

SADOLET (James), a learned cardinal, born at Modena in 1477. Leo X. made him his secretary. Sadolet was soon after made bishop of Carpentras, near Avignon. He was made a cardinal in 1536, by Paul III., and employed in several negotiations and embassies. He died in 1547, not without the suspicion of poison, for corresponding too familiarly with the Protestants, and for testifying too much regard for some of their doctors. His works, which are in Latin, were collected in 1607 at Mentz, in 1 vol. 8vo. All his contemporaries spoke of him in the highest terms.

SADYATTES, the son of Gyges, king of Lydia, father of Alyattes II., and grandfather of the famous Croesus. He succeeded Ardysus II. about A. A. C. 631; carried on a war against the Milesians for six years, and died in 619, in his thirteenth year.

SAFE, *adj.* & *n. s.*

SAFE-CONDUCT, *n. s.*

SAFE-GUARD, *n. s.* & *v. n.*

SAFE'LY, *adv.*

SAFE'NESS, *n. s.*

SAFE'TY.

Fr. *sauif*; Lat.

salvus. Secure;

free from danger

or hurt; harm-

less: a safe place

for depositing

food; a safe-conduct is, a pass or warrant to pass; a convoy: safeguard, protection; defence; pass; and, as a verb neuter, to protect: safely and safeness follow the senses of safe, adjective: safety is, security; freedom or preservation from hurt; custody.

To write the same things to you, to me is not grievous, but to you *safe*. Phil. iii. 1.

We serve the living God as near as our wits can reach to the knowledge thereof, even according to his own will; and do therefore trust that his mercy shall be our *safeguard*. Hooker.

Our separated fortune
Shall keep us both the *safer*; where we are,
There's daggers in men's smiles.

Shakspeare. *Macbeth*.

But Banquo's *safe*?
—Ay, my good lord. *Safe* in a ditch he bides,
With twenty trenched gashes on his head;
The least a death to nature. Id.

If you do fight in *safeguard* of your wives,
Your wives shall welcome home the conquerors.

Shakspeare.

God *safely* quit her of her burden, and with gentile

travail, to the gladding of your highness with an heir. *Id.*

To that dauntless temper of his mind,
He hath a wisdom that doth guide his valour
To act in *safety*. *Id.*

Imprison him ;
Deliver him to *safety*, and return. *Id. King John.*

Cæsar, where dangers threatened on the one side,
and the opinion that there should be in him little *safeguard*
for his friends on the other, chose rather to venture upon extremities, than to be thought a weak protector. *Raleigh.*

A trumpet was sent to sir William Waller, to desire a *safe-conduct* for a gentleman. *Clarendon.*

A trumpet was sent to the earl of Essex for a *safe-guard*
or pass to two lords, to deliver a message from the king to the two houses. *Id.*

Ascend ; I follow thee, *safe guide*, the path
Thou ledest me. *Milton.*

But Trivia kept in secret shades alone,
Her care, Hippolytus, to fate unknown ;
And called him Virbius in the Egerian grove,
Where then he lived obscure, but *safe* from Jove. *Dryden.*

Put your head into the mouth of a wolf, and, when you've brought it out *safe* and sound, talk of a reward. *L'Estrange.*

Who is there that hath the leisure and means to collect all the proofs, concerning most of the opinions he has, so as *safely* to conclude that he hath a clear and full view ? *Locke.*

If a man should forbear his food or his business, till he had certainty of the *safeness* of what he was going about, he must starve and die disputing. *South.*

If her acts have been directed well,
While with her friendly clay she deigned to dwell,
Shall she with *safety* reach her pristine seat,
Find her rest endless, and her bliss complete ? *Prior.*

Great numbers, descended from them, have, by the blessing of God upon their industry, raised themselves so high in the world as to become, in times of difficulty, a protection and a *safeguard* to that altar, at which their ancestors ministered. *Atterbury.*

Thy sword, the *safeguard* of thy brother's throne,
Is now become the bulwark of thy own. *Graville.*

Beyond the beating surge his course he bore,
With longing eyes observing to survey
Some smooth ascent, or *safe* sequestered bay. *Pope.*

SAFE-CONDUCT is a security given by a prince under the great seal, to a stranger, for his safe coming into and passing out of the realm. There are letters of *safe-conduct* which must be enrolled in chancery ; and the persons to whom they may be granted must have them ready to show.

SAFETY LAMP. For a description of this humane and useful invention see **LAMP** and **COAL**. One inconvenience attached to this lamp was, that the perfect safety which attended its use often induced the men at work in the mines to go into more deteriorated atmospheres than they otherwise would, which sometimes occasioned the lights to be extinguished. To obviate this inconvenience, Sir Humphrey Davy has contrived to suspend a coil of platinum wire over the flame of each lamp, the effect of which is, that the moment the light is extinguished by the superabundance of carbureted hydrogen gas in the atmosphere, the coil of platinum wire becomes of an intense red heat ; and this affords light enough to enable the men to find the road through the different passages to

the entrance of the mine. This alone would have been an important improvement—but this is not all ; for no sooner is the lamp brought into a part of the mine in which the atmosphere contains less than one-fourth of carbureted hydrogen gas, than the heated platinum wire of itself re-lights the lamp, and the men are enabled to return to their work without further interruption and in perfect safety.

Mr. Murray's new safety lamp, presented in the annexed diagram, consists of two concentric cylinders of thick glass, the space between being filled with water through a pipe at top, and represented in the figure, having an air-escape aperture on the opposite side. 'Over the flame of the wick,' says Mr. M., 'is a bell or funnel, with a double recurved pipe issuing from its summit, and passing below the lamp, terminating immediately under a single central aperture. Here the products of combustion are discharged (the excess is of course disengaged by the usual aperture at the top of the cylinder), and mingled with the explosive atmosphere rising from below, and passing to the flame of the lamp. This is again mixed more intimately at its immediate ingress, where it passes through the apertures represented on each side of the lamp. The rest may be inferred from a simple inspection of the figure, in which two of the ribs that fence in the outer cylinder (a guard from external injury) are supposed to be removed, in order to show the internal arrangement to better advantage.

'By a circular band of lead affixed to its base, the instrument will always fall vertically ; and, should it accidentally fall on its side, it will immediately recover its upright position. The water will not spill in any condition of the instrument, for the resistance of the atmosphere will prevent this. It is shown lower in the cylinders than it ought to be, in order to be clearly represented. The water will preserve the inner cylinder of an equable temperature. Hedged in by water, external injury may only affect the outer wall ; but, granting that the instrument is crushed to atoms in an explosive atmosphere, the worst that can happen is the extinction of the flame within by a flood of water.'

'I see,' continues the inventor, 'no necessity for shielding the inner cylinder by metallic bars, because explosion cannot take place within. The lamp is a self regulator ; for, as the quantity of azote, &c., will be in the ratio of the quantity of the disarmed explosive mixture, and consequent elongation of the spire of flame, so soon as it amounts to a maximum, extinction takes place, and the comparative color of the flame, with the varied phenomena of the exotic lambent flame, will afford an elegant measure of that explosive force which has been disarmed before its transmission from the portal below.

'This lamp has been submitted to the ordeal



SAFETY LAMP.

Fig. 1.

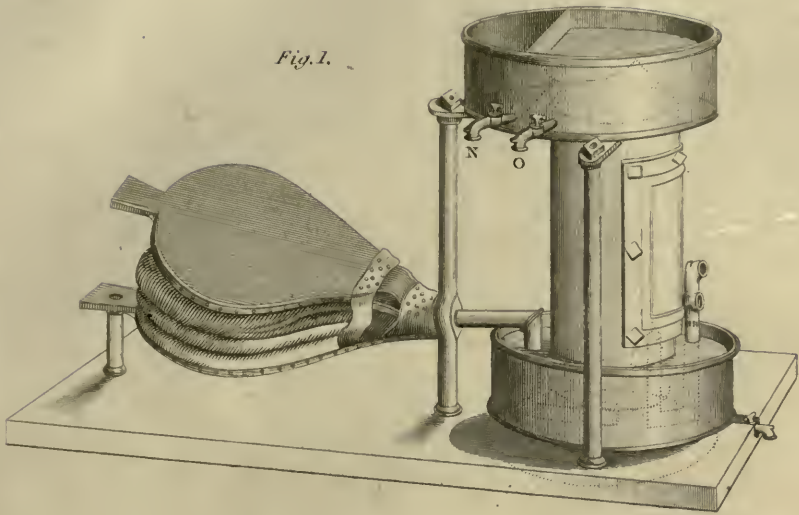


Fig. 3.

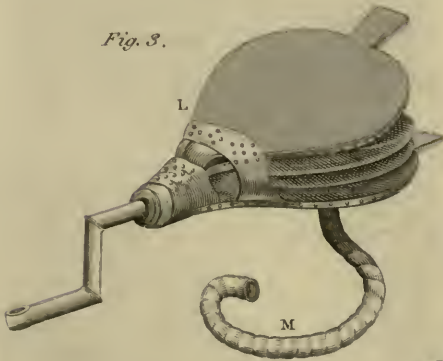
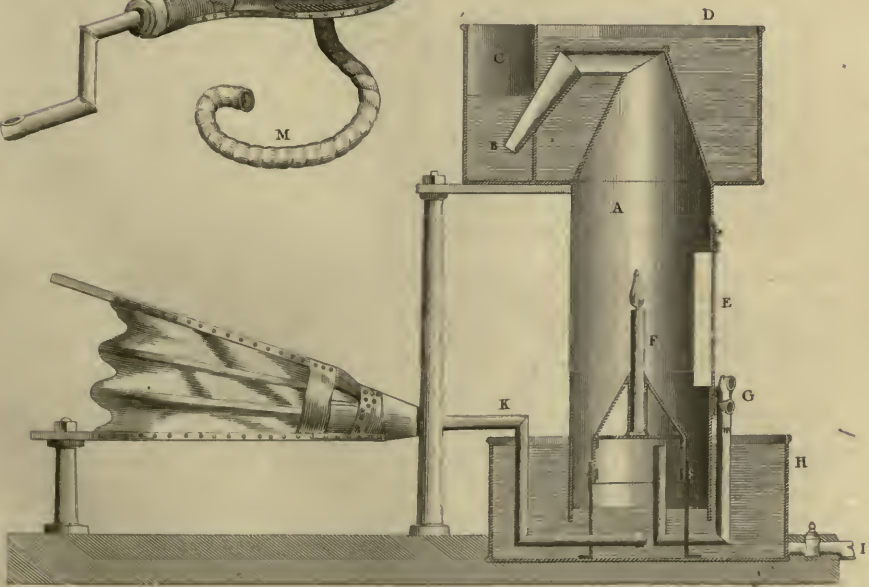


Fig. 2.



of explosive atmospheres, with the most complete success. No explosion whatever occurs within the cylinder. When the explosive atmosphere, mixed with the product of combustion, passes towards the lamp, the color of its flame is changed, and it shoots up into the bell or funnel (which carries off these chemical products of flame, in order that they may be mixed with the explosive atmosphere, before it passes into the cylinder); and, as the explosive mixture increases, a lambent attenuated flame plays silently round that of the lamp, which finally disappears; and, when it has reached its maximum, it is tranquilly extinguished.

SAFFI, or AZAFFI, a sea-port of Morocco, the capital of the province of Abda. It is supposed to be a town originally built by the Carthaginians, and is situated between two hills. Here is a very fine road, affording anchorage in every season, except in winter, when the winds blow from the south and south-west. The French had several factories there, where they took in great quantities of wool, wax, gum, and leather; but the emperor, having founded Mogodor, gave it the monopoly of the trade with Europe. The country round consists of a dry and barren sand, and the Moors are very rude and fanatical here. The population is stated by Jackson at 12,000. Long. 9° 5' W., lat. 32° 20' N.

SAFFRON, *n. s.* Fr. *safran*; from Arab. *saphur*; Span. *azafran*. A plant.

Are these your customers?

Did this companion, with the saffron face,
Revel and feast it at my house to-day,
Whilst upon me the guilty doors were shut?

Shakspeare.

Soon as the white and red mixt finger'd dame
Had gilt the mountains with her saffron flame,
I sent my men to Circe's house.

Chapman's Odyssey.

Grind your bole and chalk, and five or six chives
of saffron.

Peacham.

Now when the rosy morn began to rise,
And waved her saffron streamer through the skies.

Dryden.

An herb they call saffow, or bastard saffron, dyers
use for scarlet.

Mortimer's Husbandry.

SAFFRON, in botany. See CROCUS. Saffron is principally cultivated in Cambridgeshire, and near Saffron Walden in Essex; but the quantity of land under this crop has been gradually lessening for the last century, and especially within the last fifty years, so that its culture is now almost entirely confined to a few parishes round Saffron Walden. This is owing partly to the material being less in use than formerly, and partly to the large importations from the east, often, as professor Martyn observes, adulterated with bastard saffron (*carthamus tinctorius*) and marygolds.

Saffron is generally planted upon fallow ground, and they prefer that which has borne barley the year before. The saffron ground is seldom above three acres; and, in choosing, the principal thing is, that it be well exposed, the soil not poor, nor a very stiff clay, but a temperate dry mould, such as commonly lies upon chalk, and is of a hazel color. The ground being chosen, about Lady-day or the beginning of April it must be carefully ploughed, the furrows

being drawn much closer together, and deeper, if the soil will allow, than is done for any kind of corn; and accordingly the charge is greater. About five weeks after, during any time in May, they lay between twenty and thirty loads of dung upon each acre; and, having spread it with great care, they plough it in as before. The shortest rotten dung is the best; and the farmers spare no pains to make it good, being sure of a proportionable return. About midsummer they plough a third time, and between every sixteen feet and a half they leave a broad furrow, which serves both as a boundary to the several parcels, and for throwing the weeds into at the proper season. The time of planting is commonly in July. The only instrument used at this time is a small narrow spade, commonly called a spit shovel.

One man with his shovel raises about three or four inches of earth, and throws it before him about six or more inches. Two persons, generally women, follow with roots, which they place in the farthest edge of the trench made by the digger, at about three inches from each other. As soon as the digger has gone once the breadth of the ridge, he begins again at the other side; and, digging as before, covers the roots last set, which makes room for another row of roots at the same distance from the first. The only dexterity necessary in digging is to leave some part of the first stratum of earth untouched to lie under the roots; and, in setting, to place the roots directly upon their bottom. The quantity of roots planted on an acre is generally about sixteen quarters, or 128 bushels. From the time of planting till September, or sometimes later, there is no more labor required; but at that time they begin to vegetate, and are ready to show themselves above ground, which may be, known by digging up a few of the roots. The ground is then to be pared with a sharp hoe, and the weeds raked into the furrows, otherwise they would hinder the growth of the saffron. In some time after the flowers appear. They are gathered before they are full blown, as well as after; and the proper time for it is early in the morning. The owners of the saffron fields get together a sufficient number of hands, who pull off the whole flowers, and throw them by handfuls into a basket, and so continue till about 11 o'clock. Having then carried home the flowers, they immediately fall to picking out the stigmata or chives, and together with them a pretty large proportion of the stylus itself; the rest of the flower they throw away. Next morning they return to the field, without regarding whether the weather be wet or dry; and so on daily, till the whole crop is gathered.—The next labor is to dry the chives on the kiln. The kiln is built upon a thick plank, that it may be moved from place to place. It is supported by four short legs; the outside consists of eight pieces of wood of three inches thick, in form of a quadrangular frame, about twelve inches square at the bottom on the inside, and twenty-two on the upper part; which last is likewise the perpendicular height of it. On the foreside is left a hole of about eight inches square, and four inches above the plank, through which the fire is put in; over all

the rest laths are laid pretty thick, close to one another, and nailed to the frame. They are then plastered over on both sides, as are also the planks at bottom, very thick, to serve for a hearth. Over the mouth is laid a hair-cloth, fixed to the edges of the kiln, and likewise two rollers or moveable pieces of wood, which are turned by wedges or screws, to stretch the cloth. Instead of the hair-cloth, some people use a network of iron wire, by which the saffron is sooner dried, and with less fuel; but the difficulty of preserving it from burning makes the hair-cloth preferred by the best judges. The kiln is placed in a light part of the house; and they begin with putting five or six sheets of white paper on the hair-cloth, and upon these they lay out the wet saffron two or three inches thick. It is then covered with some other sheets of paper, and over these is laid a coarse blanket five or six times doubled, or, instead of this, a canvas pillow filled with straw; and, after the fire has been lighted for some time, the whole is covered with a board having a considerable weight upon it. At first they apply a pretty strong heat; and at this time a great deal of care is necessary to prevent burning. When it has been thus dried about an hour they turn the cakes of saffron upside down, putting on the coverings and weight as before. If no accident happens during these first two hours the danger is over; and nothing more is requisite but to keep up a very gentle fire for twenty-four hours, turning the cake every half hour. That fuel is best which yields least smoke; for which reason charcoal is preferred. The quantity of saffron produced at a crop is uncertain. Sometimes five or six pounds of wet chives are got from one rood, sometimes not above one or two, and sometimes not so much as is sufficient to defray the expense of gathering and drying. But it is always observed that about five pounds of wet saffron go to make one pound of dry for the first three weeks of the crop, and six pounds during the last week. When the heads are planted very thick two pounds of dry saffron may at a medium be allowed to an acre for the first crop, and twenty-four pounds for the two remaining ones, the third being considerably larger than the second. To obtain the second and third crops the hoeing, gathering, picking, &c., must be repeated; and about midsummer, after the third crop is gathered, the roots must all be taken up and transplanted. For taking up the roots sometimes the plough is used, and sometimes a forked hoe; and then the ground is harrowed once or twice over. During all the time of ploughing, harrowing, &c., fifteen or more people will find work enough to follow and gather the heads as they are turned up. The roots are next to be carried to the house in sacks, where they are cleaned thoroughly from earth, decayed old pieces, involucre, or excrescences, after which they become fit to be planted in new ground, or they may be kept for some time without danger of spoiling. At a medium, twenty-four quarters of clean roots, fit to be planted, may be had from each acre.

In purchasing saffron that kind ought to be chosen which has the broadest blades; this being the mark by which English saffron is distin-

guished from the foreign. It ought to be of an orange or fiery red color, and to yield a dark yellow tincture. It should be chosen fresh, not above a year old, in close cakes, neither dry nor yet very moist, tough and firm in tearing, of the same color within as without, and of a strong, acrid, diffusive smell.

SAFFRON, the *κροκος* of the Greeks, *crocus* of the Latins, and *zaffaran*, or *zahafaran* of the Arabians, was held in much estimation by the Hebrews, who called it *carcom*, and was greatly celebrated in ancient times both by physicians and poets. In medicine it was considered to be very powerful, but it is not now much used. Saffron imparts the whole of its virtues and color to rectified spirit, proof spirit, wine, vinegar, and water. A tincture drawn with vinegar loses greatly its color in keeping; the watery and vinous tinctures are apt to grow sour, and then lose their color also; that made in pure spirit keeps in perfection for many years.

SAFFRON, BASTARD. See **CARTHANUS**.

SAFFRON, MEADOW. See **COLCHICUM**.

SAFFRON WALDEN, a market-town and parish of Essex, twelve miles north from Bishop's Stortford, and forty-two north-east from London. The church is a fine old Gothic building, and there are Presbyterian, Baptist, and Quakers' meeting-houses, with several well-endowed almshouses, and a free-school. A considerable trade is carried on in malting, and in the manufacture of bolting-cloths, checks, fustians, &c. The town is irregularly built and not paved. It was incorporated by Edward VI., and is governed by a mayor and aldermen. The keep of its ancient castle is still to be seen, and on the green behind it is a singular work, called the Maze, consisting of a number of concentric circles, with four out-works issuing from the four sides, all cut in the chalk, and supposed by Dr. Stukely to have been a British place of exercise for the soldiery. Audley-End, the seat of lord Braybrook, stands on the site of a priory of Benedictines, and was once a royal palace of great magnificence and extent, but part of it has been pulled down. Market on Saturday.

SAG, *v. n.* Goth. and Swed. *sigā*. To hang heavy.

The mind I say by, and the heart I bear,
Shall never *sag* with doubt, nor shake with fear.

Shakspeare.

SAGA'CIOUS, *adj.*

SAGA'CIOUSLY, *adv.*

SAGA'CIOUSNESS, *n. s.*

SAGAC'ITY.

corresponding.

So scented the grim feature, and up turned

His nostrils wide into the murky air;

Sagacious of his quarry from so far.

Milton.

With might and main they chased the murderous
fox,

Nor wanted horns t' inspire *sagacious* hounds.

Dryden.

Only *sagacious* heads light on these observations,
and reduce them into general propositions. *Locke.*

Sagacity finds out the intermediate ideas, to discover what connection there is in each link of the chain, whereby the extremes are held together. *Id.*

It requires too great a *sagacity* for vulgar minds to draw the line nicely between virtue and vice. *South.*

SAGAN, in Scripture history, the suffragan or deputy of the Jewish high-priest. According to some writers, he was only to officiate for him when he was rendered incapable of attending the service through sickness or legal uncleanness on the day of expiation; or, according to others, he was to assist the high-priest in the care of the affairs of the temple and the service of the priests.

SAGAPENUM, in pharmacy, &c., a gum-resin brought to us in two forms; the finer and purer is in loose granules or single drops; the coarser kind is in masses composed of these drops of various sizes cemented together. In either case it is of a firm and compact substance, considerably heavy, and of a reddish color on the outside, brownish within, and spotted in many places with small yellowish or whitish specks. Its smell is strong and disagreeable; its taste acrid and unpleasant. It is imported from Persia and the East Indies. The plant which produces it is supposed to be of the ferula kind, from the seeds and fragments of the stalks sometimes met with in the body of it. Its dose is from ten grains to two scruples; but it is now seldom given alone. It is an ingredient in the theriaca, mithridate, and many other compositions of the shops.

SAGARA, the ancient Helicon of Greece, stands a few miles to the north of the gulf of Corinth. It is of considerable height, and its scenery is picturesque. Here may still be traced the fountains of Aganippe and Hippocrene, the stream of Permessus, and the village of Ascra, the birth-place of Hesiod, now also called, after the mountain, Sagara. From its top may be seen a great part of Greece.

SAGE, *adj.* & *n. s.* } Fr. *sage*; Ital. *saggio*;
SAGELY, *adv.* } Lat. *sagar*. Wise; grave;
SAGELINESS, *n. s.* } prudent: a man of gra-
 vity or wisdom: the adverb and noun substan-
 tive corresponding.

Though you profess
 Yourselves such *sages*; yet know I no less,
 Nor am to you inferior. *Sandys.*

Tired limbs to rest,
 O matron *sage*, quoth she, I hither came. *Faerie Queene.*

Vane, young in years, but in *sage* councils old,
 Than whom a better senator ne'er held
 The helm of Rome. *Milton.*

At his birth a star proclaimed him come,
 And guides the eastern *sages*, who enquire
 His place, to offer incense, myrrh, and gold. *Id.*
 Can you expect that she should be so *sage*
 To rule her blood, and you not rule your rage? *Waller.*

Groves, where immortal *sages* taught,
 Where heav'nly visions Plato fired. *Pope.*
 I grant it dangerous, and approve your fear,
 That fire is catching if you draw too near;
 But *sage* observers oft mistake the flame,
 And give true piety that odious name. *Cowper.*

SAGE, *n. s.* Fr. *sauge*; Lat. *salvia*. A plant
 of which the school of Salerno thought so
 highly that they left this verse:—

Cur moriatur homo cui *salvia* crescit in horto?
Johnson.

By the color, figure, taste, and smell, we have
 as clear ideas of *sage* and hemlock, as we have of a
 circle. *Locke.*

Marbled with *sage* the hard'ning cheese she pressed.
Gay.

SAGE, in botany. See **SALVIA**.

SAGE TREE. See **PHILOMIS**.

SAGE (Alan René Le), a celebrated French
 writer, born at Ruys, in Brittany, in 1667. He
 was a complete master of the French and Spa-
 nish languages, and wrote several admired
 novels in imitation of the Spanish authors. These
 were, *The Bachelor of Salamanca*, 2 vols. 12mo.;
New adventures of Don Quixote, 2 vols. 12mo.;
The Devil on Two Sticks, 2 vols. 12mo.; and
Gil Blas, 4 vols. 12mo. He produced also some
 comedies, and died in 1747, near Paris.

SAGHALIEN, called also *Oku Jesso*, the
 Upper Jesso, and by the natives *Tchoka*, a large
 island at the eastern extremity of Asia, im-
 mediately to the north of the island of Jesso. It is
 about 450 miles in length from north to south,
 and from forty to 130 in breadth from east to
 west, separated from the continent by a narrow
 channel, called the channel of Tartary. It has
 become a subject of controversy among naviga-
 tors whether this channel extends along the
 whole western coast, thus forming Saghalien into
 an island, or whether there be an isthmus con-
 necting it with Tartary, rendering it a penin-
 sula. D'Anville, in his maps, describes it some-
 times one way and sometimes the other; and
 though Peyrouse entered the channel, he was
 obliged, by adverse winds, to quit it before ex-
 amining its whole extent. On enquiring of the
 people of Saghalien itself, he was assured that
 it was an island, separated from the continent
 only by a narrow strait. The people of Tartary,
 on the other hand, asserted that Saghalien was
 connected with the continent by an isthmus of
 sand. Peyrouse, on the whole, was led to con-
 clude that there was a strait, but so obstructed
 by sand and sea-weed as to be scarcely passable.
 Some geographers are of opinion that all the
 circumstances may be best accounted for, by
 supposing a very narrow and winding strait sepa-
 rating the two coasts. This is the delineation
 followed in the Chinese and Japanese maps.

Saghalien, late Jesso, appears to be very
 mountainous towards the centre, and on the
 eastern coast. To the south of 51° the country
 becomes more level, and exhibits only sand-hills.
 Here the soil exhibits a vigorous vegetation, and
 is covered with forests of pine, oak, willow, and
 birch. The surrounding sea and the rivers pro-
 duce an extraordinary quantity of fish. Roses,
 angelica, and other flowers, flourish on the hills.
 The eastern coast, along which the Russian na-
 vigator Krusenstern sailed, appeared to be nearly
 destitute of inhabitants. Peyrouse gives a very
 favorable account of those with whom he had
 intercourse. They sail in boats of willow bark,
 similar to those made on the neighbouring island
 of Jesso. The north-east coast, opposite to the
 mouth of the Saghalien, is occupied by a colony
 of Mantchou Tartars. The Japanese had formed
 a colony in the bay of Aniwa, at the southern
 extremity of the island; but it has been destroyed
 by the Russians.

SAGINA, in botany, pearl-wort, a genus of the
 tetragynia order, and tetrandria class of plants; na-
 tural order twenty-second, caryophyllæ: *CAL. te-*

traphyllous; petals four: CAPS. unilocular, quadrivalved, and polyspermous. Species five, four common in our own country.

SAGITTA, in astronomy, the arrow or dart, a constellation of the northern hemisphere, near the eagle. See **ASTRONOMY**.

SAGITTAL, *adj.* & *n. s.* } Lat. *sagitta*, an
SAGITTARY, *n. s.* } arrow. Belonging
to an arrow: in anatomy, a suture so called from
its resemblance to an arrow: sagittary is the
fabled **CENTAUR**, which see.

His wound was between the *sagittal* and coronal
sutures to the bone. *Wiseman's Surgery.*

The dreadful *sagittary*
Appals our numbers.

Shakespeare. Troilus and Cressida.

SAGITTARIA, arrow head, a genus of the
polyandria order, and monœcia class of plants;
natural order fifth, tripetaloidæ: **MALE CAL.**
triphylous: **COR.** tripetalous; the filaments
generally about fourteen: **FEMALE CAL.** triphyl-
lous: **COR.** tripetalous; pistils many: **SEEDS**
many and naked. Species five, of which the
most remarkable is the

S. sagittifolia, growing naturally in many parts
of England. The root is composed of many
strong fibres, which strike into the mud; the
foot-stalks of the leaves are in length propor-
tionable to the depth of the water in which they
grow; sometimes almost a yard long; they are
thick and fungous; the leaves, which float upon
the water, are shaped like the point of an arrow,
the two ears at their base spreading wide asunder.
The flowers are produced upon long stalks which
rise above the leaves, standing in whorls round
them at the joints. They consist of three broad
white petals, with a cluster of stamina in the
middle, which have purple summits. There is
always a bulb at the lower part of the root,
growing in the solid earth beneath the mud. This
bulb constitutes a considerable part of the food
of the Chinese; and upon that account they
cultivate it. Horses, goats, and swine, eat it;
cows are not fond of it.

SAGITTARIUS, the archer, in astronomy, the
ninth sign in the zodiac, marked thus ♏. The
stars in this constellation are in the Britannic
Catalogue fifty-two, in Tycho Brahe's sixteen,
and in Ptolemy's thirty-two.

SAGO is a simple brought from the East Indies,
of considerable use as a restorative diet. It is
produced from a species of palm tree, growing
in the East Indies. The progress of its vegeta-
tion in the early stages is very slow. At first it
is a mere shrub, thick set with thorns; but, as
soon as its stem is once formed, it rises in a short
time to thirty feet, is about six feet in circum-
ference, and imperceptibly loses its thorns. Its
ligneous bark is about an inch in thickness, and
covers a multitude of long fibres; which, being
interwoven one with another, envelope a mass
of a gummy kind of meal. As soon as this tree
is ripe, a whitish dust, which transpires through
the pores of the leaves, and adheres to their ex-
tremities, proclaims its maturity. The Malays
then cut it down near the root, divide it into
several sections, and then scoop out the mass of
mealy substance, which is enveloped by, and ad-
heres to the fibres; they dilute it in water, and

then pass it through a straining bag of fine
cloth, to separate it from the fibres. When this
paste has lost part of its moisture, by evapo-
ration, the Malays throw it into earthen vessels,
of different shapes, where they allow it to dry
and harden. This paste is wholesome nourishing
food; the Indians eat it diluted with water, and
sometimes baked or boiled. A jelly is some-
times made of it, which is white and of a
delicious flavor. An inferior kind of sago is made
in the West Indies from the pith of the areca.

SAGOR, an island of Bengal, from time im-
memorial a celebrated place of Hindoo pil-
grimage. It is situated at the junction of the
Bhagurutty River, the most sacred branch of the
Ganges, with the ocean. Till recently many
persons annually devoted themselves, and sacri-
ficed their children at this place, to the sharks
and alligators. The island is not inhabited, but
the Brahmins repair at the appointed season to
the temple, followed by the pilgrims. A society
in Calcutta has lately taken a lease of this island
from the East India Company, and engaged to
clear and bring it into a state of cultivation. Its
south point is in long. 88° 20' E., lat. 21°
34' N.

SAGREDO (John), a noble Venetian, of an
ancient family, who flourished in the seventeenth
century. He became procurator of St. Mark,
and was elected doge of Venice in 1675; but
resigned because his election was not approved
by the people. He was sent ambassador to
several European courts. In 1677 he published
a History of the Ottoman Empire; which is es-
teemed a very faithful compilation.

SAGUENAY, a river of Canada, tributary to
the St. Lawrence, into which it flows, on the
west bank, at the town and harbour of Tadousac.
It draws its source from Lake St. John, receiving
many large rivers that flow from the north and
north-west, from an immense distance in the in-
terior.

SAGUM, in Roman antiquity, a military
habit, open from top to bottom, and usually
fastened on the right shoulder with a buckle or
clasp. It was not different in shape from the
chlamys of the Greeks and the paludamentum of
the generals. The only difference between them
was, that the paludamentum was made of a
richer stuff, was generally of a purple color, and
rather longer and fuller than the sagum. Some
authors have defined the sagum as a military
tunic, but several passages of Tacitus and Pliny
show that it was without sleeves, and was more
ample than the tunic. The emperor Caracalla
had invented, or imitated from the Gauls, a par-
ticular kind of sagum, to which the emperor's
name was assigned; and so fond is he represented
to have been of this garment that he preferred
it to any other, distributed a large number among
the people and soldiers, and even required that
all who approached his presence should wear this
vestment.

The precise form of the Caracalla is not now
to be ascertained. It has been described as a
garment made of several pieces diversely em-
brodered, and descending to the heels, except-
ing in the instance of the soldiers who wore it
shorter.

SAGUNTUM, or **SAGUNTUS**, an ancient town of Spain, now called Morvedro, where there are still the ruins of a Roman amphitheatre. Saguntum is celebrated in history as having been the cause of the second Punic war, and for its attachment to the Romans. Hannibal took it after a siege of about eight months; and the inhabitants, not to fall into the enemy's hands, set fire to their houses, and all their effects, and perished in the flames. The conqueror afterwards rebuilt it, and, as some suppose, called it Spargatene.

SAHARA, a name sometimes given to the great African desert, or the immense tract of territory in Northern and Central Africa, interposed between the states of Barbary and Soudan. In its greatest length it stretches nearly across the whole of Africa, from the Atlantic to the Nile, forming a space of 45° of long., or about 3000 miles. Its breadth from Barbary to Soudan may be estimated at 15°, or 1000 miles. It forms thus by much the most extensive desert to be found in any part of the world, and has already been treated of under the article **AFRICA**. The only impulse by which man has been led to traverse these dreary wilds is that of commerce; and the chief means for this have been afforded by that most useful animal the camel. The ordinary trade is carried on by merchants, inured from their infancy to that train of hardship and difficulty which attends these journeys, and who, for the sake of mutual aid, proceed in caravans or large bodies, sometimes amounting to the number of 2000. Their food consists of the milk of the camel, with barley-meal or Indian corn, a few dates, or dried flesh and coffee. Water is conveyed in goat-skins covered with tar. At each of the oases, or spots affording water, which occur at distant intervals along the waste, they stop for a few days to take in a supply. The greatest evil which they have to fear is when, in consequence of a peculiarly dry season, one of these happens to fail of water. A caravan from Morocco, consisting of 2000 men, with 1800 camels, entirely perished in this way in 1798. The caravans take their departure from every part of Northern Africa; but the three grand points of rendezvous are Cairo, Mourzouk, and the south frontier of Morocco. Cairo sends three great caravans into the interior; one to Sennaar, partly along the Nile, but chiefly across the deserts on either side; another proceeds to Darfur, through an extensive desert, by the Great Oasis, Sheb, and Selyme. It sends one also to Mourzouk, which communicates with those despatched thence in the countries on the Niger. Mourzouk sends two great caravans, one to Bornou, and one to Cassina, and holds intercourse with Tombuctoo on a smaller scale.

The sea coast of the Sahara is for the most part rocky and destitute of harbours. Hence a considerable number of European vessels suffer shipwreck, and are cast ashore here; when the crews are generally stripped of every thing, and reduced to a state of cruel bondage. Their only hope of relief is from being carried over the desert to be sold in Morocco, whence European merchants frequently send them home.

SAID or **SAUID**, a name applied to Upper

Egypt, comprehending the valley of the Nile, from the vicinity of Cairo to the frontier of Nubia. It consists throughout of a plain only a few miles broad, enclosed between the chains of mountains which extend parallel with the Nile, and is exceedingly fertile, particularly in grain, and in antiquities.

SAIDA, the port of Damascus, the ancient **SIDON**, see that article.

SAIL, *n. s., v. n. & v. a.* } Sax. *reǵl*; Belg. }
SAILER, or } *seyhel, seyl*; Swed. }
SAILOR, *n. s.* } *segel*. The canvas sheet which catches the wind and carries on a vessel; a ship or vessel; wings; any number of ships: to sail is, to move by means of sails; put out to sea; pass by sailing: a sailer, a seaman.

Fearing lest they should fall into the quicksands, they strake sail, and so were driven. *Acts xxvii. 17.*

When sailing was now dangerous, Paul admonished them. *Acts.*

He cutting way

With his broad sails about him soared round;

At last, low stooping with unwieldy sway,

Snatched up both horse and man. *Faerie Queene.*

He came too late; the ship was under sail.

Shakspeare.

So by a roaring tempest on the flood,

A whole armada of collected sail

Is scattered. *Id.*

Speak again, bright angel! for thou art

As glorious to this sight, being o'er my head,

As is a winged messenger from heaven,

When he bestrides the lazy-pacing clouds,

And sails upon the bosom of the air. *Id.*

It is written of Edgar, that he increased the fleet he found to two thousand six hundred sail.

Raleigh's Essays.

They had many times men of other countries that were no sailors. *Bacon.*

A feigned tear destroys us, against whom

Tydidies nor Achilles could prevail,

Nor ten years' conflict, nor a thousand sail.

Denham.

The galley borne from view by rising gales,

She followed with her sight and flying sails.

Dryden.

Battered by his lee they lay;

The passing winds through their torn canvass play,

And flagging sails on heartless sailors fall. *Id.*

I shall not mention any thing of the sailing waggons. *Mortimer.*

View Alcinous' groves, from whence

Sailing the spaces of the boundless deep,

To Ariconium precious fruits arrived. *Philips.*

A sail arrived

From Pompey's son, who through the realms of Spain

Calls out for vengeance on his father's death.

Addison's Cato.

He had promised to his army, who were discouraged at the sight of Seleucus's fleet, consisting of an hundred sail, that at the end of the summer they should see a fleet of his of five hundred sail.

Arbutnot on Coins.

Young Pompey built a fleet of large ships, and had good sailors, commanded by experienced captains.

Arbutnot.

Sublime she sails

Th' aerial space, and mounts the winged gales.

Pope.

Full in the openings of the spacious main

It rides, and, lo! descends the sailer train.

Id. Odyssey.

A **SAIL**, in navigation, is an assemblage of several breadths of canvas sewed together by the lists, and edged round with cord, fastened to the yards of a ship, to make it drive before the wind. See **SHIPPING**. The edges of the cloths, or pieces, of which a sail is composed, are generally sewed together with a double seam; and the whole is skirted round at the edges with a cord, called the bolt-ropes. Although the form of sails is extremely different, they are all nevertheless triangular or quadrilateral figures. The former of these are sometimes spread by a yard, as lateen-sails; and otherwise by a stay, as stay-sails; or by a mast, as shoulder-of-mutton sails; in all which cases the foremost leech or edge is attached to the said yard, mast, or stay, throughout its whole length. The latter, or those which are four-sided, are either extended by yards, as the principal sails of a ship; or by yards and booms, as the studding-sails, drivers, and ring-sails; or by gaffs and booms, as the main-sails of sloops and brigantines. The principal sails are the courses, or lower sails, the top-sails, which are next in order above the courses, and the top-gallant sails, which are above the top-sails. Every yard in a ship has its proper sail, except the cross-jack, which takes its name from the yard; and those which are not bent to the yard are the flying jib, fore, foretop, main, maintop, maintop-gallant, mizen, mizentop-mast, stay-sails, main and maintop studding sails. In this important art our law interferes minutely, enjoining by various acts of parliament that every vessel first setting out to sea from Great Britain or British America shall be furnished with one full and complete set of sails of the manufacture of Great Britain, under a penalty of fifty pounds. These acts prescribe the manner in which sail-cloth shall be manufactured as to breadth and width. See **SHIP-BUILDING**.

To make sail is to spread an additional quantity of sail, so as to increase the ship's velocity. To set sail is to unfurl and expand the sails upon their respective yards and stays, in order to begin the action of sailing. To shorten sail, is to reduce or take in part of the sails, with an intention to diminish the ship's velocity. To strike sail is to lower it suddenly. This is particularly used in saluting or doing homage to a superior force, or to one whom the law of nations acknowledges as superior in certain regions. Thus foreign vessels strike to a British man of war in the British seas.

SAILING, the movement by which a vessel is wafted through the water, by the action of the wind upon her sails. When a ship changes her state of rest into that of motion, as in advancing out of a harbour, or from her station at anchor, she acquires her motion very gradually, as a body which arrives not at a certain velocity till after a frequent repetition of the action of its weight. The first impression of the wind greatly affects the velocity, which being but small at first, the resistance of the water which depends on it will be very feeble; but, as the ship increases her motion, the force of the wind on the sails will be diminished; whereas, on the contrary, the resistance of the water on the bow will accumulate in proportion to the velocity with which the

vessel advances. Thus the repetition of the degrees of force, which the action of the sails adds to the motion of the ship, is perpetually increasing; whilst, on the contrary, the new degrees added to the effort of resistance on the bow are always augmenting. The velocity is then accelerated in proportion as the quantity added is greater than that which is subtracted; but when the two powers become equal; when the impression of the wind on the sails has lost so much of its force, as only to act in proportion to the opposite impulse of resistance on the bow, the ship will then acquire no additional velocity, but continue to sail with a constant uniform motion. The great weight of the ship may indeed prevent her from acquiring her greatest velocity; but, when she has attained it, she will advance by her own intrinsic motion, without gaining any new degree of velocity, or lessening what she has acquired. See **TACTICS**, **NAVAL** and **MILITARY**, and **NAVIGATION**.

SAIMA, a large lake, or succession of lakes, in European Russia, in the government of Finland, to the north of Wilmanstrand. It is of very irregular form, said to be 250 miles in length, and of very various breadths. It contains a great number of islands, consisting chiefly of granite, and in general uninhabited. The lake of Lapwesi is a part of that of Saima.

SAINTE, *n. s. & v. a.* } Fr. *saint*; Lat. *sanc-*
SAINTED, *adj.* } *tus*. A person emi-
SAINTELIKE, } nent for piety; to place
SAINTELY, *adv.* } among saints; canonize:
SAINTESHIP, *n. s.* } sainted is holy; pious;
sacred: saintlike and saintly correspond, as also the noun substantive following.

To thee be worship and thy *saints* for aye.

Shakspeare

She will not stay the siege of loving terms,
Nor ope her lap to *saint*-seducing gold. *Id.*

I hold you as a thing enskied and *sainted*,
By your renouncement an immortal spirit,
And to be talked with in sincerity *Id.*
As with a *saint*.

The king, in whose time it passed, whom catholicks count a *saintlike* and immaculate prince, was taken away in the flower of his age. *Bacon.*

He that thinks his *saintship* entitles him to censures is to be looked on not only as a rebel, but an usurper. *Decay of Piety.*

The crown virtue gives,
After this mortal change, to her true servants,
Amongst the enthroned gods on *sainted* hills. *Milton.*

I mention still
Him whom thy wrongs, with *saintly* patience borne,
Made famous in a land and times obscure. *Id.*

If still thou dost retain
The same ill habits, the same follies too,
Glossed over only with a *saintlike* show,
Still thou art bound to vice. *Dryden's Persius.*

This savours something ranker than the tenets of the fifth monarch, and of sovereignty founded upon *saintship*. *South.*

Are not the principles of those wretches still owned, and their persons *sainted*, by a race of men of the same stamp? *Id.*

Miracles are required of all who aspire to this dignity, because they say an hypocrite may imitate a *saint* in all other particulars. *Addison on Italy.*

Over against the church stands a large hospital, erected by a shoemaker, who has been beatified, though never *sainted*.

By thy example, kings are taught to sway,
Heroes to fight, and *saints* may learn to pray.

Addison.
Granville.

So unaffected, so composed a mind ;
So firm, yet soft, so strong, yet so refined,
Heaven, as its purest gold, by tortures tried ;
The *saint* sustained it, but the woman died. *Pope.*

Thy place is here ; sad sister ; come away :
Once, like thyself, I trembled, wept, and prayed,
Love's victim then, though now a *sainted* maid. *Id.*
The devil was piqued such *saintship* to behold,
And longed to tempt him. *Id.*

SAINTS (sancti), in the Romish church, holy persons deceased, and, since their decease, canonised by the pope, after several informations and ceremonies. One of the points wherein the Roman Catholics and Protestants differ, is, that the former address, invoke, and supplicate saints, &c., to intercede for them ; whereas the latter hold it sufficient to propose their good examples for our imitation. It would seem that in the first ages every bishop in his own diocese was wont to declare what persons were to be honored as saints by his people. Hence St. Cyprian, about the middle of the third century, B. 5. ep. 6, requires that he be informed of those who should die in prison for the faith, that so he might make mention of them in the holy sacrifice with the martyrs, and might honor them afterwards on the anniversary day of their happy death. It was thus that St. Laurence, St. Ambrose, St. Augustine, St. Basil, and many others appear to have been canonised by custom and universal persuasion. In those ages none were reckoned saints but the apostles, the martyrs, and very eminent confessors, whose sanctity was notorious every where. Afterwards canonisations were performed in provincial synods under the direction of the metropolitan. It was thus that St. Isidore of Seville was canonised in the seventh century, by the eighth council of Toledo, fourteen years after his death. This method of canonisation continued occasionally down to the twelfth century. The last instance of a saint canonised in that way is that of St. Walter, abbot of Pontoise, who was declared a saint by the archbishop of Rouen in 1153. In the twelfth century, to prevent mistakes in so delicate a matter, pope Alexander III. judged it proper to reserve this declaration to the holy see of Rome exclusively ; and decreed that no one should for the future be honored by the church as a saint, without the express approbation of the pope. Since that time the canonisation of saints has been carried on in the form of a process ; and there is at Rome a congregation of cardinals, called the congregation of holy rites, who are assisted by several divines under the name of consultants, who examine such matters, and prepare them for the decision of his holiness. When, therefore, any potentate, province, city, or religious body think fit, they apply to the pope for the canonisation of any person. The first juridical step in this business must be taken by the bishop in whose diocese the person for whom the application is made had lived and died, who by his own authority calls witnesses to attest the

holiness, the virtues, and miracles of the person in question. This is succeeded by a tedious process of enquiry into the character of the deceased. Commissioners summon witnesses, take depositions, and collect letters and other writings of the venerable man, and get all the intelligence they can concerning him, and the opinion generally entertained of him. Their report is considered by the congregation, and every part of it discussed by the consultants, when the congregation determines whether or not they can permit the process to go on. If it be allowed to proceed, a cardinal, who is called pontif, undertakes to be the principal agent in that affair. There is also a distinguished ecclesiastic called the promoter of the holy faith, who is sworn to make all reasonable objections to the proofs adduced in favor of the canonisation. If the decision be favorable, then the proofs or miracles are permitted to be brought forward ; when two miracles must be verified to the satisfaction of the congregation, both as to the reality of the facts, and as to their having been above the power of nature. If the decision on this point is likewise favorable, then the whole is laid before the pope and what divines he chooses. When the pope is resolved to give his approbation, he issues a bull, first of beatification, by which the person is declared blessed, and afterwards another of sanctification, by which the name of saint is given him. These bulls are published in St. Peter's church with great solemnity. After his canonisation, his name is inserted in the Martyrology, or catalogue of saints, of which a portion is read every day in the choir at the divine office. His name may be mentioned in the public church service, and his intercession with God besought. His relics may be enshrined, &c. Canonisation is necessarily very expensive, because so many persons must be employed about it ; so many journeys must be made ; so many writings for and against it must be drawn out. The expense altogether amounts to about 25,000 Roman crowns, or £6000 sterling. But it is generally contrived to canonise two or three at a time, by which means the particular expense of each is very much lessened, the solemnity being common. Several authors have written on canonisation, particularly Prosper Lambertini, afterwards pope under the name of Benedict XIV. who had held the office of promoter of the faith for many years. He published on it a large work in several volumes, folio, of which there is an abridgment in French.

ST. JOHN (Henry), lord Viscount Bolingbroke, an eminent statesman and philosopher, descended from an ancient and noble family, born about the year 1672. He had a liberal education ; and when he left the university, contrary to the inclinations of his family, he cultivated Tory connexions ; and gained such influence in the house of commons that in 1704 he was appointed secretary of war and of the marines. He was closely united in all political measures with Mr. Harley : when, therefore, that gentleman was removed from the seals in 1707, Mr. St. John resigned ; and in 1710, when Mr. Harley was made chancellor of the exchequer, he was made

secretary of state. In 1712 he was created baron St. John of Lediard-Tregoze in Wiltshire, and Viscount Bolingbroke. But, not receiving when he wished the ribbon of the order of the garter, he renounced the friendship of Harley, then earl of Oxford, and joined with the Whigs. Nevertheless, on the accession of George I., the seals were taken from him; and, hearing that he was to be impeached for his conduct in regard to the treaty of Utrecht, he withdrew to France. Here he accepted an invitation to enter into the pretender's service, and accepted the seals as secretary; but the year 1715 was scarcely expired, when, though he was attainted of high treason at home, the seals and papers of his office were taken from him; the Pretender and his party accusing him of neglect, incapacity, and treachery. While in France he wrote his celebrated *Reflections Upon Exile*; and in 1716 drew up a vindication of his conduct, in the form of *A Letter to Sir William Wyndham*. His first lady being dead, he married a niece of Madame de Maintenon, and widow of the marquis de Vilette, with whom he had a very large fortune. In 1723 the king being prevailed on to grant him a free pardon, he returned to England; but was by no means satisfied to remain a mere titular lord, excluded from the house of peers. This confirmed his enmity to Sir Robert Walpole, to whom he attributed his not receiving the full extent of the king's clemency; hence he distinguished himself by a multitude of political writings, till 1735, when he returned to France. In this retreat he began his course of *Letters on the Study and Use of History*, for the use of lord Cornbury, to whom they are addressed. Upon the death of his father he settled at Battersea, the ancient seat of his family, where he passed the remainder of his life. He died in 1751, and left his MSS. to Mr. Mallet, who published them with his former printed works, in 5 vols., 4to; they are also printed in 8vo.

ST. JUST (Anthony), a political demagogue of the French Revolution, associated in the crimes and punishment of Robespierre. He was born in 1768 and educated for the law. At the commencement of the revolution he was chosen a deputy to the convention from the department of the Aisne, and voted for the death of Louis XVI.; assisted materially in the destruction of the Girondists, and was subsequently sent, as a commissioner of the national convention, to the army in Alsace, when, in conjunction with Lebas, he carried to a great extent the system of terror both among the troops and people. St. Just, on his return to Paris, towards the close of 1793, obtained great influence; and Robespierre was principally guided by his violent counsels. After assisting in the overthrow of Danton and his friends, he became justly involved in the ruin of Robespierre, who rejected his advice in the last struggle. He was guillotined July 28, 1794. He was the author of *Organt*, a poem in twenty cantos, 1789, 2 vols. 8vo.; *Mes Passe-temps, ou le Nouvel Organt de 1792*, another licentious poem; and *Fragments sur les Institutions Republicaines*, a posthumous work, 1800, 12mo.; besides reports to the National Convention, from the Committees of General Surety and of Public

Safety. This wretch has been sometimes confounded with Louis Leon St. Just, who called himself the marquis de Fontvielle, and was the author of a work, entitled *Esprit de la Revolution, et de la Constitution de France*.

SAINTE MARTHE (Scævola), was born at Loudun in 1536. He early acquired the Latin, Greek, and Hebrew languages, and became celebrated as a lawyer, orator, poet, and historian. He was much employed under Henry III. and IV. In 1579 he was governor and treasurer of Poitiers. In 1593 and 1594 he was intendant of finances in the army, and reduced Poitiers under Henry IV. He published 1. *La Louange de la Ville de Poitiers*; 1573: 2. *Opera Poetica*; Lat. et Gall.; 1575: 3. *Gallorum doctrinâ illustrium Elogia*; 1598: and *Pædotrophia, seu de Puerorum Educatione*; dedicated to Henry III.; 1584. This last work went through ten editions during his life, and has been often reprinted. He died in 1623; leaving several sons.

SAINTE MARTHE (Abel), eldest son of Scævola, was born at Loudun in 1570; and cultivated like him Latin and French poetry. His poems were printed with his father's in 1632, 4to. Louis XIII. gave him a pension; made him a counsellor of state; and, in 1627, made him his librarian. He published *Opuscula Varia*, at Poitiers, in 8vo., 1645. He died in 1652.

SAINTEs, a considerable and ancient town in the south-east of France, in the department of the Lower Charente, near the river of that name. It was, in the time of the Romans, one of the chief cities of Aquitaine, and subsequently the capital of the province of Saintonge. Its aspect from a distance is fine, but its streets are narrow and winding, and its houses ill built; it contains a cathedral founded by Charlemagne, a Roman amphitheatre, an aqueduct, and a triumphal arch of white marble on the bridge across the Charente. Inhabitants 10,300. Forty-two miles south-east of Rochelle.

SAKE, *n. s.* Sax. *rac*; Goth. *sac*; Belg. *saecke*. Account; cause; end; purpose.

Would I were young for your *sake*, mistress Anne.
Shakspeare.

Thou neither do'st persuade me to seek wealth
For empire's *sake*, nor empire to affect
For glory's *sake*.
Milton's Paradise Lost.

The profane person serves the devil for nought, and
sins only for sin's *sake*.
Tillotson.

Wyndham like a tyrant throws the dart,
And takes a cruel pleasure in the smart;
Proud of the ravage that her beauties make,
Delights in wounds, and kills for killing *sake*.
Granville.

SAKER, *n. s.* Saker originally signified a hawk: then a small piece of artillery.

According to observations made with one of her majesty's *sakers*, and a very accurate pendulum chronometer, a bullet, at its first discharge, flies five hundred and ten yards in five half seconds, which is a mile in a little above seventeen half seconds.

Derham's Physico-Mathology.

The cannon, blunderbuss, and *saker*,
He was the inventor of and maker.
Hudibras.

SAKERET, *n. s.* From *saker*. The maie of a *saker*-hawk. This kind of hawk is esteemed next after the falcon, and gyf-falcon. *Bailey.*

SAL, *n. s.* Lat. *sal*. Salt. A word often used in pharmacy.

Acids will help its passing off; as *sal pruncl.*

Flower.

Sal gem is so called from its breaking frequently into gemlike squares. It differs not in property from the common salt of the salt springs or that of the sea, when all are equally pure.

Woodward's Met. Foss.

SAL ALEMBROTH, a compound of muriate of mercury and ammonia.

SAL AMMONIAC, muriate of ammonia. See **AMMONIA**, **AMMONIAC SAL**, and **MURIATIC ACID**. This salt, according to Mongou, is met with in the form of an efflorescence on the surface of the earth, or adhering in powder to rocks. Sometimes, as in Persia and the country of the Kalmucks, it is found as hard as stone. It is met with of different colors, as gray, black, green, and red, in the neighbourhood of volcanoes, in the caverns or grottos of Puzzuoli, and in the mineral lakes of Tuscany, as well as in some mountains of Tartary and Thibet. At Solfaterra, near Naples, it is found in the crevices, of a yellowish color, like common sal ammoniac that has been often sublimed.

SAL PRUNELLE, nitrate of potass cast into round balls or flat cakes after being fused.

SALACIA, in botany, a genus of the trigynia order, and gynandria class of plants: *cal.* quinquefid; *cor.* quinquepetalous; antheræ on the top of the germ. Species two, natives of China.

SALA'CIOUS, *adj.* } Fr. *salace*; Lat. *salax*.

SALA'CITY, *n. s.* } Lustful; lecherous; lust.

Immoderate *salacity* and excess of venery is supposed to shorten the lives of cocks.

Browné's Vulgar Errors.

One more *salacious*, rich, and old,
Out-bids, and buys her. *Dryden's Juvenal.*

A corrosive acrimony in the seminal lymph produces *salacity*. *Floyer on the Humours.*

Animals splenened, grow extremely *salacious*.

Arbutnot.

SALAD, *n. s.* Fr. *salade*. Food of raw herbs. It has been generally pronounced *sallet*.

I climbed into this garden to pick a *salad*, which is not amiss to cool a man's stomach.

Shakspeare. Henry VI.

My sallet days,

When I was green in judgment, cold in blood.

Shakspeare.

You have, to rectify your palate,
An olive, capers, some better *salad*,
Ushering the mutton.

Ben Jonson.

I tried upon *sallet* oil.

Boyle.

Some coarse cold *salad* is before thee set;

Fall on.

Dryden's Persius.

Sow some early *salleting*. *Mortimer's Husbandry.*

Leaves eaten raw are termed *salad*; if boiled they become *poterbs*; and some of those plants which are *poterbs* in one family are *salad* in another.

Watts.

SALADILLO, a river of Buenos Ayres, which rises in vast plains in the interior, and, running to the south-east, falls into the sea near the mouth of the La Plata, on the southern side.

SALADIN, a sultan of Egypt, equally renowned as a warrior and legislator. He supported himself by his valor against the united efforts of the chief Christian potentates of Europe,

who carried on the most unjust wars against him, under the false appellation of Holy Wars. See **CRUSADE**.

SALADO, an abundant river of South America, in the province of Tucuman, which has its rise from many streams flowing down the western declivity of the Andes, in lat. 24° S. It derives its name from the salt with which its waters are impregnated.

SALAMANCA, a province of Spain, forming the south part of the kingdom of Leon, and bordering on Portugal; between 5° and 7° of W. long., and 40° and 41° 38' of N. lat. It has a superficial extent of 1500 square miles, consisting partly of a dead flat, destitute of trees, and deficient in water; partly, particularly in the south, of lofty mountains, where are found the Sierras of Francia, Bejar, Gredos, Gata, and Puerto del Pico. It is watered by the Donro, the Aguedar, the Yeltes, the Tormes, and the Alagon, and contains the small lake of Gredos. The climate is in general dry and hot; but the mountains are rich in minerals, and the more favorable exposures produce vines, and other fruits of a warm climate. The wool of this province is good; the best pastures being allotted to the Merino breed of sheep. Inhabitants 200,000. The contraband trade with Portugal is very considerable.

SALAMANCA, an ancient city of Spain, is situated on the ascent of three hills, having the river Tormes at their base. The environs are pleasant, and, along with the numerous spires of the city, are happily contrasted with the surrounding monotonous country. The town has a wall, thirteen gates, several squares and fountains, and a number of massy buildings; but the streets are all on uneven ground, and often in want of water. The houses are uniform, and of a good height, with balconies in front; and one of the sides of the great square is occupied by the town-house. Other public buildings are the cathedral, university, churches, and convents. The cathedral is a majestic Gothic edifice, entered by a fine gate, and admired in the interior for the boldness of the arches, and the finished character of the sculpture. The bishop's see is of very remote date.

The university was founded in 1239, and had long a considerable reputation. The buildings are still extensive, consisting of twenty-five colleges, and the number of professional chairs fully sixty; while the students do not at present exceed 300 or 400.

Here are various vestiges of antiquity, in particular a Roman road leading to Merida, and a Roman bridge over the Tormes, of twenty-seven arches, and about 500 feet in length. The banks of the river, and the country to the west of Salamanca, were the scene of an engagement between the British under lord Wellington, and the French under Marmont, in July 1812. Salamanca is 153 miles W.N.W. of Madrid.

SALAMANCA, a small town of Mexico, in the intendency of Guanajuato, situated in a rising plain, at the height of 7075 feet above the level of the sea. It is about seventy miles N.N.W. of Valladolid, and 150 north-west of Mexico. Also, formerly, a city of South America, in the

kingdom of New Granada, and province of Santa Martha, of which little remains but a small village.

SAL'AMANDER, *n. s.* } Fr. *salumandre* ;
SALAMANDRINE, *adj.* } Lat. *salamandra*. An animal supposed to live in the fire, and imagined to be very poisonous: salamandrine, capable of bearing fire unhurt.

The *salamander* liveth in the fire, and hath force also to extinguish it. *Bacon's Natural History.*

There may be such candles as are made of *salamander's* wool, being a kind of mineral, which whiteneth in the burning, and consumeth not.

Bacon.

According to this hypothesis, the whole lunar world is a torrid zone, and may be supposed uninhabitable, except they are *salamanders* which dwell therein. *Glanville's Sceptis.*

Whereas it is commonly said that a *salamander* extinguisheth fire, we have found by experience that on hot coals it dieth immediately.

Browne's Vulgar Errors.

Laying it into a pan of burning coals, we observed a certain *salamandrine* quality, that made it capable of living in the midst of fire, without being consumed or singed. *Spectator.*

The artist was so encompassed with fire and smoke that one would have thought nothing but a *salamander* could have been safe in such a situation.

Addison's Guardian.

Of English talc, the coarser sort is called plaister or parget; the finer, spoad, earth flax, or *salamander's* hair. *Woodward.*

SALAMANDER. See **LACERTA.**

SALAMIS, an island of the archipelago, in the Sinus Saronicus, on the south coast of Attica, opposite to Eleusis; celebrated for a battle between the Greek and Persian fleets. In the council of war held before this battle, among the Persians, queen Artemisia was the only person who opposed their design of engaging. She was queen of Halicarnassus, and followed Xerxes in this war with five ships, the best equipped of any in the fleet, except those of the Sidonians. She represented in the council of war the dangerous consequences of engaging a people far more expert in maritime affairs than the Persians; alleging that the loss of a battle at sea would be attended with the ruin of their army; whereas, by lengthening out the war, and advancing into the heart of Greece, they would create jealousies and divisions among their enemies, who would separate to defend each his own country; and that the king might thus make himself master of Greece. This prudent advice was not followed, but an engagement was resolved upon. Xerxes, to encourage his men, caused a throne to be erected on the top of an eminence, whence he might safely behold whatever happened; having several scribes about him, to write down the names of such as should signalise themselves. The approach of the Persian fleet, with the news that a strong detachment from the army was marching against Cleombrotus, who defended the isthmus, struck such terror into the Peloponnesians that they could not be prevailed upon to stay any longer at Salamis, but insisted on returning to their own country. Themistocles, hearing of this, privately despatched a trusty friend to the Persian commanders, informing them of the intended fight,

and exhorting them to send part of their fleet round the island, to prevent their escape. The same messenger assured Xerxes that Themistocles designed to join the Persians, as soon as the battle began, with all the Athenian ships. The king, giving credit to this, immediately caused a strong squadron to sail round the island in the night to cut off the enemy's retreat. Early next morning, as the Peloponnesians were preparing to set sail, they found themselves encompassed on all sides by the Persian fleet, and were against their inclination compelled to remain in the straits of Salamis and expose themselves to the same dangers with their allies. As to the number of the Persian ships the poet Æschylus speaks of it in his tragedy of Persæ as a matter he was well assured of:

A thousand ships (for well I know the number
 The Persian flag obeyed), two hundred more
 And seven, o'erspread the seas.

The Athenians had only 180 galleys, each carried eighteen men that fought upon deck, four of whom were archers and the rest heavy armed. Themistocles avoided the engagement till a certain wind, which rose regularly every day at the same time, began to blow. As soon as this wind blew he gave the signal for battle. The Persians advanced with great resolutions, but the wind blowing directly in their faces, and the largeness and number of their ships embarrassing them in a place so narrow, they were thrown into disorder; which the Greeks observing, broke into the Persian fleet; some of whom fled towards Phalarus, where their army lay encamped; others saving themselves in the harbours of the neighbouring islands. Queen Artemisia distinguished herself, her ships being the last that fled: which Xerxes observing, cried out that the men behaved like women, and the women with the courage and intrepidity of men. The Athenians offered a reward of 10,000 drachmas to any one that should take her alive, but she got clear of the ships and arrived safe on the coast of Asia. In this engagement the Grecians lost forty ships; and the Persians 200, besides many more that were captured. Pausanias says that on one side of this island stood in his time a temple of Diana, and on the other a trophy for a victory obtained by Themistocles, together with the temple of Cenchreus, or Cychreus, the site of which is now thought to be occupied by the church of St. Nicholas.

SALAMIS, the capital of the above island. This city was demolished by the Athenians, because in the war with Cassander it surrendered to the Macedonians. In the second century, when it was visited by Pausanias, some ruins of the Agora or market-place remained, with a temple and image of Ajax; and not far from the port was shown a stone, on which they related Telamon sat to view the Salaminian ships on their departure to join the Grecian fleet at Aulis. The walls may still be traced, and were about four miles in circumference. The level space within them is now covered with green corn. The port is choked with mud, and was partly dry. Among the scattered marbles are some with inscriptions. On one, near the port, the name

of Solon occurs. This renowned lawgiver was a native of Salamis, and a statue of him was erected in the market-place, with one hand covered by his vest, the modest attitude in which he was accustomed to address the people of Athens. The island of Salamis is now inhabited by a few Albanians, who till the ground.

SALAMIS, SALAMINA, or SALAMINIA, an ancient town of Cyprus on the south-east coast. It was built by Teucer, and so named by him from the island from which he had been banished, about A. A. C. 1270. His descendants continued masters of it for above 800 years. It was destroyed by an earthquake, but rebuilt in the fourth century, and called Constantia. It is now called Salina.

SALAMIS, in the mythology, a daughter of the river god Asopus, by the nymph Methone. Neptune became enamoured of her, and carried her to the island afterwards named from her, where she bore him a son, named Cenchreus.

SALAPIA, or SALAPIÆ, in ancient geography, a town of Italy, in Apulia; to which Hannibal retired after the battle of Cannæ. It was afterwards taken from him by Marcellus.

SALARY, *n. s.* Fr. *salairé*; Lat. *salarium*. Stated hire; annual or periodical payment of money.

This is hire and *salary*, not revenge. *Shakspeare*. Several persons, out of a *salary* of five hundred pounds, have always lived at the rate of two thousand. *Swift*.

SALASSI, an ancient people of Gallia Cisalpina, who were often at war with the Romans. In A. U. C. 610 they cut off an army of 10,000 Romans under Appius Claudius; but were soon after defeated, and at last totally subdued, and sold as slaves by Augustus. Their country was settled by a Roman colony, and called Prætoria Augusta.

SALE, *n. s.* } Goth. *sala*; Belg. *saal*.
 SALE'ABLE, *adj.* } The act or power of selling;
 SALE'ABLY, *adv.* } vent; market; public mar-
 SALES'MAN, *n. s.* } ket; auction; price: used
 SALE'WORK. } by Spenser for a sale bas-
 ket: the derivatives correspond: sale-work is, work merely for sale; careless work.

Nothing doth more enrich any country than many towns; for the countrymen will be more industrious in tillage, and rearing of all husbandry commodities, knowing that they shall have ready *sale* for them at those towns. *Spenser*.

To make baskets of bulrushes was my wont;
 Who to entrap the fish in winding *sale*
 Was better? *Id.*

The other is not a thing for *sale*, and only the gift of the gods. *Shakspeare. Cymbeline*.

I see no more in you than in the ordinary
 Of Nature's *sale-work*. *Id. As You Like It*.

I can impute this general enlargement of *saleable* things to no cause sooner than the Cornishman's want of vent and money. *Carew*.

Others more moderate seeming, but their aim
 Private reward; for which both God and state
 They'd set to *sale*. *Milton's Agonistes*.

Those that won the plate, and those thus sold,
 ought to be marked so as they may never return to the race or to the *sale*. *Temple*.

This vent is made quicker or slower as greater or less quantities of any *saleable* commodity are removed out of the course of trade. *Locke*.

The more money a man spends, the more must he endeavour to increase his stock; which at last sets the liberty of a commonwealth to *sale*. *Addison*.

Poets make characters, as *salesmen* cloaths;
 We take no measure of your fops and beaus. *Swift*.

SALE is the exchange of a commodity for money; barter, or permutation, is the exchange of one commodity for another. When the bargain is concluded, an obligation is contracted by the buyer to pay the value, and by the seller to deliver the commodity at the time and place agreed on, or immediately, if no time be specified. In this, as well as other mercantile contracts, the safety of commerce requires the utmost good faith and veracity. Therefore, although, by the laws of England, a sale above the value of £10 be not binding, unless earnest be paid, or the bargain be confirmed by writing, a merchant would lose all credit who refused to perform his agreement, although these legal requisites were omitted. When a specific thing is sold, the property, even before delivery, is in some respect vested in the buyer; and, if the thing perishes, the buyer must bear the loss. For example, if a horse dies before delivery, he must pay the value; but, if the bargain only determines the quantity and quality of the goods, without specifying the identical articles, and the seller's warehouse with all his goods be burned, he is entitled to no payment. He must also bear the loss if the thing perish through his fault. If a person purchase goods at a shop without agreeing for the price, he is liable for the ordinary market-price at the time of purchase. If the buyer prove insolvent before delivery, the seller is not bound to deliver the goods without payment or security. If the importation, or use of the commodities sold, be prohibited by law, or if the buyer knows that they were smuggled, no action lies for delivery. The property of goods is generally presumed, in favor of commerce, to belong to the possessor, and cannot be challenged in the hands of an onerous purchaser. But to this there are some exceptions. By the Scotch law stolen goods may in all cases be reclaimed by the proprietor, and also by the English law, unless they were bought *bonâ fide* in open market; that is, in the accustomed public places, on stated days in the country, or in a shop in London; and horses may be reclaimed, unless the sale be regularly entered by the book-keeper of the market. In all cases, if the goods be evicted by the lawful proprietor, the seller is liable to the purchaser for the value. Actions for payment of shop-accounts, as well as other debts not constituted by writing, are limited in England to six years. The testimony of one witness is admitted; and the seller's books, although the person that kept them be dead, are good evidence for one year. In Scotland merchants' books may be proved within three years of the date of the last article, by one witness, and the creditor's books, and oath in supplement. After three years they can only be proved by the oath or writ of the debtor. A merchant's books are in all cases good evidence against him.

SALE (George), a learned English author, one of the writers in the Universal History, all the oriental part of which he compiled. He was

also engaged in other important literary labors; but his chief work is *The Koran of Mahomet*, which he translated into English from the original Arabic, and enriched with explanatory notes from the most approved commentators; and to which he prefixed a *Preliminary Discourse*; London, 4to. 1733. Mr. Sale died in 1736.

SALEM, a post town of Rockingham county, New Hampshire, thirty-five miles north of Boston, and thirty-five south-west of Portsmouth. Here is a woollen manufactory.

SALEM, a sea-port town of the United States, capital of Essex county, Massachusetts, four miles and a half north-west of Marblehead, fourteen N. N. E. of Boston, twenty-four south of Newburyport. It is chiefly built on a tongue of land formed by two inlets from the sea, called North and South rivers; over the former of which is a bridge, upwards of 1500 feet long, connecting Salem with Beverly, and the latter forms the harbour. The harbour has good anchorage, but the water is so shallow that vessels drawing more than twelve or fourteen feet must unload, in part, at a distance from the wharfs. The situation of Salem is low, but pleasant; it is well built; and with regard to population, wealth, and commerce, is the second town in New England. It contains a court-house, jail, alms-house, market-house, three banks, four insurance-offices, a custom-house, a grammar school, an orphan asylum, a bank for savings, a museum, an athenæum containing upwards of 5000 volumes well selected, and eleven houses of public worship, six for Congregationalists, two for Baptists, one for Episcopalians, one for Friends, and one for Universalists. It has numerous public and private schools, which are well supported. None of the public buildings are splendid: but the court-house, the market-house, the alms-house, the custom-house, and the grammar school-house, all of brick, and the jail of stone, are spacious, handsome, and commodious. The churches are large, neat, and convenient. Three of them are furnished with organs, and six with steeples or cupolas. The private houses have generally the appearance of neatness, convenience, and comfort; and many of them indicate taste and opulence. The town was formerly built almost entirely of wood, but a large proportion of the houses erected within the last twenty years are of brick.

The appearance of Salem is very irregular, the streets having been laid out with little regard to symmetry or beauty. In the northern part of the town there is a common, containing about ten acres, surrounded by a handsome public walk, which is planted with rows of trees. On a peninsula below the town there are two forts, Fort Pickering and Fort Lee, and on Baker's Island there is a light house.

Salem is, next to Plymouth, the oldest town in the state, and was settled in 1626. The inhabitants are chiefly employed in trade and navigation. The shipping belonging to this port in 1816 amounted to 34,454 tons. The East India trade has, for several years, been carried on here with great spirit and advantage, and it is to this branch of commerce that the town is indebted

for a great part of its wealth. The number of vessels employed at present in this trade amounts to fifty-three, carrying 14,272 tons. There are now living about 160 persons, who, as masters or supercargoes of vessels, have sailed from this town round the Cape of Good Hope, or Cape Horn. A society composed of such persons, styled the East India Marine Society, was incorporated in 1801; the object of which is to afford relief to indigent members or their families, to promote the knowledge of navigation and trade to the East Indies, and to increase the museum. The museum belongs to this society, and is a very extensive and interesting cabinet of curiosities collected from all parts of the world, and is visited free of expense.

SALEM, NEW, a post town of Franklin county, Massachusetts; eighteen miles E. S. E. of Greenfield, eighty west of Boston, west 452. Population 2167. Here is a respectable academy.

SALEM, a post town of Washington county, New York, eighteen miles south-east of Sandy Hill. Population 2833. The courts for the county are held alternately here and at Sandy Hill. Here is a handsome town, on an extensive plain, containing a court house, a jail, an academy, and two churches. Two weekly newspapers are published.

SALENGORE, a Malay principality, extending a considerable space along the western coast of the Malay peninsula. It is governed by a Mahometan prince, who bears the title of rajah. The rajah monopolises the greater part of the trade, and is thus induced to afford protection to vessels coming up the river of Salengore. There are several other rivers traversing the territory, and falling into the straits of Malacca; particularly one called Burnam, from which a great number of long rattans are brought. The commodities fitted for exportation here are tin, rattans, gold dust, elephants' teeth, dragon's blood, camphire, with some pepper, and other spices. These are given in exchange for opium, piece goods, gunpowder, cutlery, steel, copper, iron, and some woollens. The Chinese and the Birgis of Celebes carry on a good deal of trade at this port. Long. 101° 18' E.; lat. 3° 20' N.

SALEP, in the materia medica, the dried root of a species of orchis. See ORCHIS. Several methods of preparing salep have been practised. Geoffroy has given a very judicious process for this purpose in the *Histoire de L'Academie Royale des Sciences*, 1740; and Retmus in the *Swedish Transactions*, 1764, has improved Geoffroy's method. Mr. Moul of Rochdale also found a method of curing the orchis root; by which salep is prepared, at least equal, if not superior, to any brought from the Levant. The new root is to be washed in water; and the fine brown skin which covers it is to be separated by a small brush, or by dipping the root in hot water, and rubbing it with a coarse linen cloth. When a sufficient number of roots have been thus cleaned, they are spread on a tin plate, and placed in an oven heated to the usual degree, where they are to remain six or ten minutes, in which time they will have lost their milky whiteness, and acquired a transparency like horn, without any diminution of bulk. They are then to be re-

moved to dry and harden in the air, which will require several days to effect; or, by using a very gentle heat, they may be finished in a few hours. Salep, thus prepared, may be afforded in places where labor bears a high value, at about 8*d.* or 10*d.* per pound. And it might be sold still cheaper, if the orchis were to be cured, without separating from it the brown skin which covers it; a troublesome part of the process, and which does not contribute to render the root either more palatable or salutary. The foreign salep is sold at 5*s.* or 6*s.* per pound. As a wholesome nourishment, says Dr. Percival in his *Essays, Medical and Experimental*, rice is much inferior to salep. Salep has the singular property of concealing the taste of salt water; a circumstance of the highest importance at sea, when there is a scarcity of fresh water. The restorative, mucilaginous, and demulcent qualities of the orchis root, render it of considerable use in various diseases. In the sea-scurvy it lessens the acrimony of the fluids, and at the same time is easily assimilated into a mild and nutritious chyle. The ancient chemists entertained a very high opinion of the orchis root, as appears from the *secreta secretorum* of Raymond Lully, 1565.

SALERNO, a city of Italy, in the kingdom of Naples, the capital of the province of Principato Citra, and having a population of 10,000. Though delightfully situated, the town itself is not agreeable: the streets are paved with lava, narrow and irregular, and have a gloomy appearance, from the height of the houses. Salerno is an ancient city, and has in front of the cathedral twenty-eight ancient granite columns. The harbour is good. Twenty-eight miles E. S. E. of Naples.

SALES (St. Francis de), a Romish saint, born at Sales castle in 1567. In 1602 he was made bishop of Geneva, in which station his conduct was pious and exemplary; he founded a society of religious, called the Order of the Visitation; which was sanctioned by Paul V. in 1618. He died in 1622, and was canonized by Alexander VI. He wrote, 1. *An Introduction to a Devout Life*; 2. *A Treatise on the Love of God*; and *Letters*.

SALET, in war, a light covering or armour for the head, anciently worn by the light horse, only different from the casque in that it had no crest, and was little more than a bare cap.

SALIENT, in fortification, denotes projecting. There are two kinds of angles, the one salient, which have their point outwards; the other re-entering, which have their points inwards.

SALIC, or **SALIQUE**, law (*lex salica*), an ancient and fundamental law of the kingdom of France, usually supposed to have been made by Pharamond, or by Clovis; in virtue whereof males only are to inherit. Some, as Postellus, suppose it to have been called Salic, q. d. Gallic, because peculiar to the Gauls. For Montanus insists, it was because Pharamond was at first called Salicus. Others believe it to have been so named, because used only in the Salic lands. These were noble fiefs which their first kings used to bestow on the sallians, that is, the great lord of their sale or court, without any other tenure than military service; and, for this reason,

such fiefs were not to descend to women, as being by nature unfit for such a tenure. Shakspeare represents it as derived from the name of the river Sala, in Germany, and says—

‘That the land of Salique lies in Germany,
Between the floods of Sala and of Elbe,
Where Charles the Great, having subdued the
Saxons,

There left behind and settled certain French
Who, holding in disdain the German women
For some dishonest manners of their life,
Established there this law.

Henry V., act 1.

Montesquieu derives the origin of this word from the Sallians, a tribe of Franks who settled in Gaul in the reign of Julian, who is said to have given them lands on condition of their personal service in war. Before the election of the Merovingian kings, this powerful tribe of the Franks appointed four venerable chieftains to compose their laws; and their labors were examined and approved in three successive assemblies of the people. After the baptism of Clovis, he reformed several articles incompatible with Christianity. The Salic law was again amended by his sons; and, under the reign Dagobert, the code was revised and promulgated 100 years after the establishment of the French monarchy. If it be asked, how it came to pass that the Salic laws gained general authority in the country of the Franks, and the Roman law gradually declined; while in the jurisdiction of the Visigoths the Roman law spread itself, and obtained at last a general sway? Montesquieu replies that the Roman law was disused among the Franks, on account of the great advantages accruing from being a Frank to a person living under the Salic law. The clergy alone retained the old law, because a change could be of no advantage to them. The Roman law inflicted no hardships upon them, as it was the work of Christian emperors. ‘This law,’ says Millot, ‘fixed the punishment of crimes and various points of police. There is no ground for believing, that it expressly settled the right of succession to the crown. It only says that, with relation to the salic land, women have no share of heritage, without restricting it to the royal family; for all those were called salic lands which were held by right of conquest; and it is easy to conceive, that a nation of soldiers, whose general was their king, would not submit to be governed by a woman. A long custom, supported by the principles of the nation, became in time the established law of the kingdom.’

SALICORNIA, jointed glass-wort, or salt-wort, a genus of the monogynia order, and monandria class of plants: natural order twelfth, holoracæ: *CAL.* ventricose, or a little swelling out and entire: there are no petals, and but one SEED. There are nine species, of which the most remarkable are—

1. *S. fruticosa*, with obtuse points, grows plentifully in the salt-marshes which are overflowed by the tides in many parts of England. It is an annual plant, with thick, succulent, jointed stalks, which trail upon the ground. The flowers are produced at the ends of the joints toward the extremity of the branches, which are small, and scarcely discernible by the naked eye.

2. *S. perennis*, with a shrubby branching stalk, grows naturally in Sheppey Island. This has a shrubby branching stalk about six inches long; the points of the articulations are acute; the stalks branch from the bottom, and form a kind of pyramid. They are perennial, and produce their flowers in the same manner as the former. The inhabitants near the sea coasts, where these plants grow, cut them up towards the latter end of summer, when they are fully grown; and, after having dried them in the sun, they burn them for their ashes, which are used in making of glass and soap. These herbs are by the country people called kelp, and promiscuously gathered for use. Barilla is likewise made from them. They are also used for dyeing leather red, instead of the shenan.

SALIENT, *adj.* Latin, *saliens*. Leaping; bounding; moving by leaps.

The legs of both sides moving together as frogs, and *salient* animals, is properly called leaping.

Browne's Vulgar Errors.

A *salient* point, so first is called the heart, By turns dilated, and by turns compressed, Expels and entertains the purple guests? *Blackmore.*
Who best can send on high

The *salient* spout, far streaming to the sky. ; *Pope.*

SALII, in Roman antiquity, priests of Mars, of whom Numa instituted twelve, who wore painted particolored garments, and high bonnets; with a steel cuirass on the breast. They were called salii, from saltare to dance; because, after assisting at sacrifices, they went dancing about the streets, with bucklers in their left hand, and a rod in their right, striking with their rods on one another's bucklers, and singing hymns in honor of the gods. Their feasts were uncommonly sumptuous, whence dapes saliares is proverbially applied to repasts splendid and costly. Their chief, called præsul and magister saliorum, was one of their members, and led the band, the rest imitating all his steps and motions. The whole company was called collegium saliorum. Sext. Pompeius makes mention of salian maids, virgines saliares, hired for the purpose, and joined with the salii, wearing a kind of military garb, called paludamentum, with high round bonnets like the salii, and like them performing sacrifice with the pontifices.

SALIMBENI (Venura), an eminent historical painter, born at Sienna, in Tuscany, in 1557. There was a fine picture by him of the descent of the Spirit on the apostles at Pentecost, in the possession of the earl of Pembroke. He died in 1613.

SALINE, *adj.* Lat. *salinus*. Consisting **SALINOUS**, *adj.* } of, or forming, salt.

We do not easily ascribe their induration to cold; but rather unto *salinous* spirits and concretive juices.

Browne.

This *saline* sap of the vessels, by being refused reception of the parts, declares itself in a more hostile manner, by drying the radical moisture.

Harvey on Consumptions.

If a very small quantity of any salt or vitriol be dissolved in a great quantity of water, the particles of the salt or vitriol will not sink to the bottom, though they be heavier in specie than the water; but will evenly diffuse themselves into all the water, so as to make it as *saline* at the top as at the bottom.

Newton's Optics.

As the substance of coagulation is not merely *saline*, nothing dissolves them but what penetrates and relaxes at the same time. *Arbutnot on Aliments.*

SALISBURY, the capital or county town of Wiltshire, is situated in a vale, at the confluence of the Wiley and Nadder, with the Avon. It owed its origin to the cathedral, which was begun in 1220, by bishop Poor, and finished in 1256, when the see was held by William of York. This building is in the early pointed style of architecture, and may be justly regarded as one of the most elegant and regular ecclesiastical structures in the kingdom. It is in the form of a double cross, and consists of a nave and choir, with two side aisles, and two transepts, each with its aisle. Connected with it is a handsome quadrangular cloister, and an octagon chapter-house. The spire, which is evidently a later erection, and was probably begun at the latter end of Edward II., or the beginning of Edward III.'s reign, rises on four pillars, at the intersection of the nave and principal transept, to the stupendous height of 400 feet. Although it declines above two feet from the perpendicular, it has yet withstood the storms and tempests of ages, and the effects of time and accident; and seems likely to remain for centuries a monument of singular architectural boldness, skill, and perseverance. The chapter-house is also a beautiful specimen of architecture, the groined roof of fifty feet in diameter being poised on a single slender pillar in the centre.

The cathedral establishment consists of a dean, forty-one prebendaries, six of whom are residentiary, and called canons, a sub-dean, sub-chanter, four vicars choral, seven lay-vicars, one of whom is organist, and eight choristers. The chapter is composed of the dean and residentiary canons; and the close in which the cathedral is situated is environed with a wall, and forms a distinct jurisdiction, under the dean, in virtue of letters patent granted by Edward III. The bishop, who is a member of the cathedral establishment, as prebendary of Pottern, has under him the archdeacons of Sarum, Wilts, and Berks, for the superintendance of his diocese. In the close is a college, for the maintenance of a certain number of clergymen's widows, built and endowed by bishop Seth Ward.

The city, which is erected on ground originally belonging to the see, acknowledges the bishop as lord of the manor. It is incorporate, and governed by a mayor, high steward, recorder, twelve justices, fourteen aldermen, and thirty common-councilmen. The justices are chosen from the aldermen, and the aldermen from those who have borne the office of mayor.

It contains the three parish churches of St. Thomas, St. Edmund, and St. Martin; and includes the suburbs of Fisherton and East Harnham.

An attempt was made; under bishop Ward, in the reign of Charles II., to render the Avon navigable to Christchurch; and, about thirty years ago, a canal was begun to form a water communication with the port of Southampton: but both these projects proved abortive. With respect to land communications, the city was essentially benefited by the turning of the great

western road through it, which was effected soon after the commencement of the cathedral. To this advantage, and to its central situation in regard to the great towns, in the west and south of England, Salisbury owes much of its present importance; for its manufactures of cloth, flannel, and lace, are now in a manner extinct, and its cutlery much reduced, in consequence of the competition of Birmingham, Sheffield, &c. Besides the parish churches, the principal buildings are the council-house, erected at the expense of the late earl of Radnor; the general infirmary, supported by voluntary contribution; and the county prison. These two last are situated in Fisherton. There are many alms-houses and charitable establishments, the chief of which is the hospital of St. Nicholas, founded, or at least endowed, by bishop Bingham. Salisbury is twenty-one miles north-east from Southampton, eighty-two W. S. W. from London, ninety-one E. N. E. from Exeter, and thirty-seven south-west from Bath. Lat. $51^{\circ} 3' N.$, long. $1^{\circ} 42' E.$ It sends two representatives to parliament, the right of election being vested in the corporation.

Old Sarum, the parent of the present city, which is sometimes called New Sarum, is situated about a mile and a half to the north. It consists of a circular rampart and ditch, formed by scarping down a hill, and a mound in the centre, which was probably crowned by the keep or citadel. It was originally a fortress of the Britons; was afterwards occupied by the Romans, of whose military ways, four diverged from this spot; next by the Saxons; and finally rendered by the Norman sovereigns a post of considerable importance. Of its buildings nothing remains but a few trifling fragments, though it long enjoyed the privilege of sending two members to parliament, who were chosen by the occupiers of certain lands in the vicinity. It was disfranchised in 1832.

SALISBURY, a post town of Hillsborough county, New Hampshire, on the west side of the Merrimack; fourteen miles N. N. W. of Concord, thirty-eight south-east of Dartmouth College, fifty-nine W. N. W. of Portsmouth. The fourth New Hampshire turnpike passes through this town, and upon this road, in the south part of the town, there is a pleasant village, containing a Congregational meeting house, and an academy; and about two miles above, on the turnpike, there is a Baptist meeting-house. On the Merrimack near the mouth of the Winnipisseege, there is another flourishing village. Salisbury is a very good agricultural town.—Also a post town of Essex county, Massachusetts, on the north bank of the Merrimack; four miles north-west of Newburyport, thirty-six N. N. E. of Boston. It contains two parishes, and has a pleasant and considerable village, on the north bank of the Merrimack, below the junction of the Powow River. Considerable business is done at this village at ship building, and here is some trade in the fisheries.—Also a post town of Litchfield county, Connecticut, in the north-west corner of the state; twenty-four miles north-west of Litchfield. It is a considerable town, and the neighbourhood contains large quantities of iron ore.

SALIVA, *n. s.* Lat. *saliva*. Every thing
 SALIVAL, *adj.* that is spit up; more strictly
 SALIVOUS, } that juice which is separated
 SALIVATE, *v. a.* by the glands called salival: relating to the saliva: to salivate is to cleanse or purge by means of the salival glands.

The woodpecker, and other birds that prey upon flies, which they catch with their tongue, in the room of the said glands have a couple of bags filled with a viscous humour, which, by small canals, like the *salival*, being brought into their mouths, they dip their tongues herein, and so with the help of this natural bird-lime attack the prey.

Holding of ill tasted things in the mouth will make a small *salivation*. *Grew.*
Id. Cosmologia.

The necessity of spittle to dissolve the aliment appears from the contrivance of nature in making the *salivary* ducts of animals which ruminate, extremely open: such animals as swallow their aliment without chewing, want *salivary* glands. *Arbuthnot.*

Not meeting with disturbance from the *saliva*, I the sooner extirpated them. *Wiseman's Surgery.*
 She was prepossessed with the scandal of *salivating*, and went out of town. *Id.*

There happeneth an elongation of the uvula, through the abundance of *salivous* humour flowing upon it. *Wiseman.*

SALIVA is that fluid by which the mouth and tongue are continually moistened in their natural state; and which is supplied by glands which form it, called salivary glands. This humor is thin and pellucid, incapable of being concreted by the fire, almost without taste and smell. Saliva, beside water, which constitutes at least four-fifths of its bulk, contains the following ingredients:—1. Mucilage. 2. Albumen. 3. Muriate of soda. 4. Phosphate of soda. 5. Phosphate of lime. 6. Phosphate of ammonia. Like all the other animal fluids, it is however liable to many changes from disease, &c. Brugnatelli found the saliva of a patient laboring under an obstinate venereal disease impregnated with oxalic acid. The concretions which sometimes form in the salivary ducts, &c., and the tartar or bony crust which so often attaches itself to the teeth, are composed of phosphate of lime. It has a great affinity for oxygen, absorbs it readily from the air, and gives it out again to other bodies. Hence the reason why gold or silver, triturated with saliva in a mortar, is oxidated, as Du Tennifer has observed. Hence also the reason that saliva is a useful application to sores of the skin. Dogs and other animals have constantly recourse to this remedy, and with much advantage.

SALIVATION, in medicine, is effected chiefly by mercury. The use of salivation is in diseases belonging to the glands and membrana adiposa, and principally in the cure of the venereal disease; though it is sometimes also used in epidemic and cutaneous diseases, &c.

SALIX, the willow, in botany, a genus of the diandria order, and dicæcia class of plants: natural order fiftieth, amentaceæ: amentum of the male scaly: *cor.* none, but a nectariferous glandule at the base of the flower: female amentum scaly: *cor.* none; style bifid: *caps.* unilocular and bivalved: *seeds* pappous. The willow has been frequently the theme of poetical description,

both in ancient and modern times. There are seventy species; of which the most remarkable are,

1. *S. alba*, white or silver-leaved willow, growing to a great height and considerable bulk, having smooth pale green shoots; long, spear-shaped, acuminate, sawed, silvery-white leaves, downy on both sides, with glands below the serratures. This is the common white willow, which grows abundantly about towns and villages, and by the sides of rivers and brooks, &c.

2. *S. Babylonia*, *Babylonian pendulous salix*, commonly called weeping willow, grows to a largish size, having numerous long, slender, pendulous branches, hanging down loosely all round, and long, narrow, spear-shaped, serrated, smooth leaves. This curious willow is a native of the east, and is retained in our hardy plantations for ornament, and exhibits a most agreeable variety; particularly when disposed singly by the verge of any piece of water, or in spacious openings of grass ground.

3. *S. caprea*, the common sallow tree, grows to but a moderate height, having smooth, dark-green, brittle branches; oval, waved, rough leaves, indented at top, and woolly underneath. It grows abundantly in this country, but more frequently in dry than moist situations; it is of a brittle nature, and therefore unfit for the basket-makers; but will serve for poles, stakes, and to lop for fire-wood; and its timber is good for many purposes.

4. *S. fissa*, basket osier. Leaves alternate, pedicelled, minutely toothed. A shrub four or five feet high, with erect, flexible, and very tough branches, of a yellowish ash color, sometimes purplish. A native of various parts of Europe, on the sandy banks of rivers, and in England cultivated in fens as preferable to all other willows or osiers for basket-work.

5. *S. fragilis*, fragile or crack willow, rises to a middling stature, with brownish, very brittle branches; long, oval, lanceolate, smooth leaves, of a shining green on both sides, having dentated glandular foot-stalks. This kind in particular being exceedingly fragile, so that it easily cracks and breaks, is unfit for culture in osier-grounds.

6. *S. pentandria*, broad-leaved, sweet-scented willow, grows to some considerable stature, having brownish-green branches; oblong, broad, scattered, smooth, sweet-scented leaves, shining above; and pentandrous flowers.

7. *S. purpurea*, purple or red willow, grows to a large height, having long, reddish, very pliable shoots, and long, spear-shaped, serrated, smooth leaves, the lower one being opposite.

8. *S. viminalis*, or osier willow, grows but to a moderate height, having slender rod-like branches; very long, pliant, greenish shoots; and very long, narrow, spear-shaped, acute, almost entire leaves, hoary, and silky underneath.

9. *S. vitellina*, yellow or golden willow, grows but to a moderate height; having yellow, very pliant shoots; oval, acute, serrated, very smooth leaves, with the serratures cartilaginous, and with callous punctures on the foot-stalks. All the species are of the tree kind, very hardy, remarkably fast growers, and several of them attaining a considerable stature when permitted to run up

to standards. They are generally the most abundant and of most prosperous growth in watery situations: they however will grow freely almost any where, in any common soil and exposure: but grow considerably faster and stronger in low moist land, particularly in marshy situations, by the verge of rivers, brooks, and other waters; which places, often lying waste, may be employed to good advantage in plantations of willows for different purposes.

SALLEE, a large walled sea-port on the coast of Morocco, situated in the province of Benihassen, at the mouth of a river of the same name. It was formerly the great hold of Moorish piracy, and immense depredations were committed from it upon European commerce.

SALLENRE (Albert Henry de), F. R. S., an ingenious writer, born at the Hague in 1694. His father was receiver general of Walloon Flanders, and of an ancient family. He sent young Albert to Leyden, who, having finished his studies, commenced advocate in Holland. After the peace of Utrecht, in 1713, he travelled into France. In 1716 he was made counsellor to the princess of Nassau; in 1717 commissary of finances to the States. In 1719 he visited England, and was elected F. R. S. He wrote commentaries on Ovid's epistles and other classics; and was writing a History of the United Provinces, when he was cut off by the small pox in 1723.

SALLO (Denis de), a French writer, born in Paris in 1626. He studied the law, and was admitted a counsellor in the parliament of Paris in 1652. It was in 1664 he laid the plan of the *Journal des Sçavans*; and the year following began to publish it, under the name of *Sieur de Heronville*, which was that of his valet de Chambre. But he criticised so severely, and authors retorted so powerfully, that M. de Sallo, after he had published his third *Journal*, gave up the undertaking, delivering it over to the abbe Gallois; who, without presuming to criticise, contented himself merely with giving the titles of new books, and making extracts. M. de Sallo died in 1669.

SAL'LOW, *n. s.* Lat. *salix*. A tree of the genus of willow.

Sallows and reeds on banks of rivers born,
Remain to cut to stay thy vines. *Dryden.*

SAL'LOW, *adj.* } Belg. *zalow*; Teut.
SAL'LOWNESS, *n. s.* } *salo*, black. Sickly; yellow: the noun substantive corresponding.

What a deal of brine
Hath wash't thy *sallow* cheeks for Rosaline!

Shakspeare.

The scene of beauty and delight is changed:
No roses bloom upon my fading cheek,
Nor laughing graces wanton in my eyes;
But haggard Grief, lean-looking *sallow* Care,
And pining Discontent, a rueful train,
Dwell on my brow, all hideous and forlorn. *Rowe.*

A fish diet would give such a *sallowness* to the celebrated beauties of this island, as would scarce make them distinguishable from those of France.

Addison.

SALLUSTIUS (Caius Crispus), a celebrated Roman historian, born at Amiternum, in Italy, A. U. C. 669. His Roman History, in six

books, from the death of Sylla to the conspiracy of Catiline, the great work from which he chiefly derived his glory among the ancients; is unfortunately lost, excepting a few fragments; but the two detached pieces of his history which happily remain entire are sufficient to justify the great encomiums he has received as a writer. No man has inveighed more sharply against the vices of his age than this historian; yet no man had less pretensions to virtue. His youth was spent in a most lewd and profligate manner, and his patrimony rapidly squandered. Marcus Varro, a writer of undoubted credit, relates, in a fragment preserved by Aulus Gellius, that Sallustius was actually caught in bed with Fausta the daughter of Sylla, by Milo her husband; who scourged him very severely, and did not suffer him to depart till he had redeemed his liberty with a considerable sum. In A. U. C. 694 he was made questor, and in 702 tribune of the people; in neither of which places did he acquit himself with honor. By his questorship he obtained an admission into the senate; but was expelled by the censors in 704 on account of his debauched way of life. In 705 Cæsar restored him to the dignity of a senator, and made him questor a second time. In the administration of this office he behaved very scandalously. In 707, when the African war was at an end, he was made prætor for his services to Cæsar, and sent to Numidia. Here he outrageously plundered the province; and returned with such immense riches to Rome, that he purchased a magnificent building upon mount Quirinal, with those gardens which still retain the name of Sallustian gardens, besides his country house at Tivoli. Eusebius tells us that he married Terentia, the divorced wife of Cicero; and that he died at the age of fifty, A. U. C. 710, four years before the battle of Actium. Besides his histories of the Catilinarian and Jugurthine wars, we have some orations, printed with his fragments.

SAL'LY, *n. s. & v. a.* } Fr. *sallie*. Erup-
 SAL'LYPORT. } tion; issue from a
 place besieged; quick egress; escape: to make
 such egress: a sally-port is a gate at which sal-
 lies are made.

Now mote I weet,
 Sir Guyon, why with so fierce *sallience*
 And fell intent, y^e did at erst me meet.

Faerie Queene.

The Turks, *sallying* forth, received thereby great hurt.

Knolles.

The episodical part, made up of the extravagant *sallies* of the prince of Wales and Falstaff's humour, is of his own invention. *Shakspeare. Illustrated.*

At his return all was clear, and this excursion was esteemed but a *sally* of youth.

Wotton.

The deputy sat down before the town for the space of three winter months; during which time *sallies* were made by the Spaniards, but they were beaten in with loss.

Bacon.

My slippery soul had quitted the fort,
 But that she stopped the *sally*port.

Cleveland.

Love to our citadel resorts
 Through those deceitful *sally*ports;
 Our sentinels betray our forts.

Denham.

'Tis but a *sally* of youth.

Id. Sophy.

These passages were intended for *sallies* of wit; but whence comes all this rage of wit? *Stillingfleet.*

The noise of some tumultuous fight;
 They break the truce and *sally* out by night.

Dryden.

Every one shall know a country better that makes often *sallies* into it, and traverses it up and down, than he that, like a mill-horse, goes still round in the same track.

Locke.

We have written some things which we may wish never to have thought on: some *sallies* of levity ought to be imputed to youth.

Swift.

SALLY-PORTS, in fortification, or posterns as they are sometimes called, are those underground passages which lead from the inner works to the outward ones; such as from the higher flank to the lower, or to the tenailles, or the communication from the middle of the curtain to the ravelin. When they are made for men to go through only, they are made with steps at the entrance and going out. They are about six feet wide, and eight feet and a half high. There is also a gutter or shore made under the sally ports, which are in the middle of the curtains, for the water which runs down the streets to pass into the ditch; but this can only be done when they are wet ditches. When sally-ports serve to carry guns through for the out works, instead of making them with steps, they must have a gradual slope, and be eight feet wide. See FORTIFICATION.

SALMANASAR, or SALMANESER, the son of Tiglath-pileser, king of Assyria, succeeded his father, about A. M. 3276. He took Samaria, put an end to the kingdom of Israel, and carried the Israelites into captivity, A. M. 3283. He was afterwards defeated by the Tyrians; and died about A. A. C. 714. He was succeeded by his son Sennacherib.

SALMASIUS (Claudius), a French writer of great abilities and immense erudition, descended from an ancient and noble family, and born at or near Semur in 1596. His mother, who was a Protestant, educated him in her own religious opinions, and he at length converted his father. He settled at Leyden; and in 1659 paid a visit to Christina, queen of Sweden, who showed him extraordinary marks of regard. Upon the death of king Charles I. he was prevailed on by the royal family, then in exile, to write a defence of that king, which was answered by the celebrated Milton in 1651, in a work entitled *Defensio pro Populi Anglicano contra Claudii Salmasii Defensionem Regiam*. This book was read over all Europe; and conveyed such a proof of the writer's abilities that he was respected even by those who hated his political principles. Salmasius died in 1653. His works are numerous, and of various kinds; but the greatest monuments of his learning are his *Notæ in Historiæ Augustæ Scriptores*, and his *Exercitationes Plinianæ in Solinum*.

SALMASIUS (Claudius), son of the preceding, published the answer to Milton, which his father had begun, but did not live to finish; and dedicated it to king Charles II. in 1660.

SALMO, the salmon, in ichthyology, a genus of the order of abdominales. The head is smooth, and furnished with teeth and a tongue; the rays of the gills are from four to ten; the back-fin is fat behind, and the ventral fins have

many rays. There are many species, of which the most remarkable are the following:—

1. *S. albus*, the white, migrates out of the sea into the river Esk in Cumberland, from July to September. When dressed the flesh of these fish is red and most delicious eating. They have, on their first appearance from the salt water, the lernæa salmonea, or salmon louse, adhering to them. They never exceed a foot in length. The upper jaw is a little longer than the lower; in the first are two rows of teeth, in the last one; on the tongue are six teeth. The back is straight, the whole body of an elegant form, the lateral line is straight; color, between that and the top of the back, dusky and silvery intermixed; beneath the line white; first dorsal fin spotted with black; tail black, and much forked.

2. *S. alpinus*, the red charr, is an inhabitant of the lakes of the north, and of those of the mountainous parts of Europe. It chooses clear and pure waters, and is very rarely known to wander into running streams. It is found in vast abundance in the cold lakes on the summits of the Lapland mountains, and is almost the only fish that is met with in any plenty in those regions. The larvæ of a species of gnat afford food to the fish, who in their turn are a support to the migratory Laplanders, in their summer voyages to the distant lakes. There are but few lakes in our island that produce this fish; and even those not in any abundance. It is found in Ullswater and Windermere in Westmoreland; in Llyn Quellyn, near the foot of Snowdon; and, before the discovery of the copper mines, in those of Llynberris; but the mineral streams have entirely destroyed the fish in the last lakes. In Scotland it is found in Loch Inch and other neighbouring lakes, and is said to go into the Spey to spawn. They are supposed to be in the highest perfection about May, and continue so all the summer; yet are rarely caught after April. When they are spawning in the river they will take a bait, but at no other time; being commonly taken, as well as the other species, in what they call breast-nets, which are in length about twenty-four fathoms, and about five where broadest. They are taken in greatest plenty from the end of September to the end of November. This species is much esteemed for the table, and is very delicate when potted.

3. *S. eperlanus*, the smelt, inhabits the seas of the northern parts of Europe, and is found as far south as the Seine. They are also taken in the Straits of Magellan, and of a most surprising size, some measuring twenty inches in length and eight in circumference. They inhabit the seas that wash these islands the whole year, except when they ascend the rivers. In certain rivers they appear a long time before they spawn, being taken in great abundance in November, December, and January, in the Thames and Dee, but in others not till February; and in March and April they spawn; after which they all return to the salt water, and are not seen in the rivers till the next season. They never come into the Mersey as long as there is any snow water in the river. These fish vary greatly in size; but the largest we ever heard of was thir-

teen inches long, and weighed half a pound. They have a very particular scent, whence is derived one of their English names, smelt, i. e. smell it. That of spurling, which is used in Wales and the north of England, is taken from the French sperlan. The fishing for smelts in the Thames is prohibited under heavy penalties, and the exertions of the magistrates have nearly put an end to it. The fish can hardly be purchased in London at any price however extravagant. It is a fish of a very beautiful form and color; the head is transparent, and the skin in general so thin that with a good microscope the blood may be observed to circulate. The irides are silvery; the pupil of a full black; the under jaw is the longest; in the front of the upper jaw are four large teeth; those in the sides of both are small; in the roof of the mouth are two rows of teeth; on the tongue two others of large teeth. The scales are small, and readily drop off; the tail consists of nineteen rays, and is forked. The color of the back is whitish, with a cast of green, beneath which it is varied with blue, and then succeeds a beautiful gloss of a silvery hue.

4. *S. fario*, the trout: the colors of which vary greatly in different waters, and in different seasons. Trouts differ also in size. The stomachs of the common trouts are uncommonly thick and muscular. They feed on the shell-fish of lakes and rivers, as well as on small fish. They likewise take into their stomachs gravel or small stones, to assist in comminuting the testaceous parts of their food. The trouts of certain lakes in Ireland, such as those of the province of Galway and some others, are remarkable for the great thickness of their stomachs, which, from some slight resemblance to the organs of digestion in birds, have been called gizzards; the Irish name the species that has them gillaroo trouts. These stomachs are sometimes served up to table alone, under the appellation of gillaroo. Trouts are most voracious fish, and afford excellent diversion to the angler. Trouts shift their quarters to spawn; and like salmon make up towards the heads of rivers to deposit their roes. The under jaw of the trout is subject, at certain times, to the same curvature as that of the salmon. Trouts are caught in very great plenty at all seasons of the year; one weighing a pound and a half is a usual size, though some are caught of four pound weight. Five or six ounces is a common weight; the largest are commonly the best for the table, when a deep salmon color. In winter great quantities are potted along with the charre, and sent to London, &c. Geld fish (those without spawn) are the firmest and best.

5. *S. lavaretus*, the gwiniad, is an inhabitant of several of the lakes of the Alpine parts of Europe. It is found in those of Switzerland, Savoy, and Italy; of Norway, Sweden, Lapland, and Scotland; in those of Ireland and of Cumberland; and in Wales, in that of Llyntegid, near Bala, in Merionethshire. It is the same with the ferra of the lake of Geneva; the schelly of Hulsewater; the pollen of Loch Neah; and the vangis and juvenigs of Loch Mbaon. It is said to have been first introduced into Scotland by queen Mary; and as in her time the Scottish

court was much Frenchified, the name was perhaps derived from the French *vendois*, a dace; to which a slight observer might be tempted to compare it by the whiteness of its scales. The British name *gwiniaid* or *whiting* was bestowed upon it for the same reason. It is a gregarious fish, and approaches the shores in vast shoals in spring and in summer; which proves in many places a relief to the poor of inland countries, as the annual return of the herring is to those who inhabit the coasts. Between 7000 and 8000 have been taken at one draught. The whiting is a fish of an insipid taste, and must be eaten soon, for it will not keep long; those that choose to preserve them do it with salt. They die very soon after they are taken. Their spawning season in Llyntegid is in December. The largest whiting we ever heard of weighed between three and four pounds; the head is small, smooth, and of a dusky hue; the eyes very large; the pupil of a deep blue; the nose blunt at the end; the jaws of equal length; the mouth small and toothless; the branchiostegous rays nine; the covers of the gills silvery, powdered with black. The back is a little arched, and slightly carinated; the color, as far as the lateral line, is glossed with deep blue and purple; but towards the lines assumes a silvery cast, tinged with gold; beneath which those colors entirely prevail. The tail is very much forked; the scales are large, and adhere close to the body.

6. *S. salar*, the common salmon, is a northern fish, being unknown in the Mediterranean Sea and other warm climates; it is found in France in some of the rivers that fall into the ocean, and north as far as Greenland; they are also very common in the northern parts of North America. They are in several countries a considerable article of commerce; they are stationary fisheries in Iceland, Norway, and the Baltic; and in Great Britain, on the Tweed, at Berwick, and in various rivers of Scotland. See our article **FISHERIES**. In Cumberland they go up the river Derwent in September, through the lake of Bassenthwaite, up the river which runs through Keswick into the Vale of St. John, where they deposit their spawn in the small streams and feeders of the lake. The young salmon are called salmon smelts, and go down to the sea with the first floods in May. The salmon was known to the Romans, but not to the Greeks. Pliny speaks of it as a fish found in the rivers of Aquitaine: Ausonius enumerates it among those of the Moselle. The salmon is a fish that lives both in the salt and fresh waters; quitting the sea at certain seasons for the sake of depositing its spawn, in security, in the gravelly beds of rivers remote from their mouths. There is scarcely any difficulties but what they will overcome to arrive at places fit for their purpose; they will ascend rivers hundreds of miles, force themselves against the most rapid streams, and spring with amazing agility over cataracts of several feet in height. Salmon are frequently taken in the Rhine as high up as Basil; they gain the sources of the Lapland rivers in spite of their torrent like currents, and surpass the perpendicular falls of Leixslip, Kennerth, and Pont Aberglastyn. The salmon is so generally known that a very brief descrip-

tion will serve. It has been known to weigh seventy-four pounds. The color of the back and sides is gray, sometimes spotted with black, sometimes plain; the covers of the gills are subject to the same variety; the belly silvery; the nose sharp-pointed; the end of the under jaw in the males often turns up in the form of a hook; sometimes this curvature is very considerable; it is said that they lose this hook when they return to the sea. The teeth are lodged in the jaws and on the tongue, and are slender but very sharp; the tail is a little forked. When the fish enter the Friths, or mouths of the rivers, at the commencement of their upward migration, and are thus in good condition, they are termed, in the language of fishermen, *clean fish*. At this period they are infested with the salmon louse, *caligus productus* of naturalists, and which chiefly adhere to the more insensible parts. But when arrived at the place of spawning, the fish is lean, as the whole fat of the body has passed into the melt and the roe. In this state, in which they are termed *red fish*, they are worthless as an article of food. After the fish have spawned they are termed *kelts* or *foul fish*, and are equally despised with the red fish. The gills are now more or less covered with the *entomoda salmonea*. The motion of the fish upwards from the sea to the river and place of spawning is influenced by several causes. When there is abundance of fresh water in the Friths the fish seem to proceed regularly and rapidly up the middle of the stream, enter the rivers, and hasten on to their destination. In returning to the sea, after spawning, the fish seem to keep the middle of the stream in the river, and the deepest and saltest water in the Friths. Salmon enter the river at all seasons of the year, but they approach in greatest numbers during the summer months. Fish taken in May, June, and July, are much fatter than fish in the same condition as to spawning, taken in February, March, or April. They fall off in fatness very rapidly from August to January, when they are leanest. The principal spawning season is in November, December, and January. See **FISHERIES**. Salmon fisheries, Marshal observes, are 'copious and constant sources of human food; they rank next to agriculture. They have indeed one advantage over every other internal produce: their increase does not lessen other articles of human sustenance. The salmon does not prey on the produce of the soil, nor does it owe its size and nutritive qualities to the destruction of its compatriot tribes. It leaves its native river at an early state of growth; and, going even naturalists know not where, returns of ample size, and rich in human nourishment; exposing itself in the narrowest streams, as if nature intended it as a special boon to man. In every stage of savageness and civilisation the salmon must have been considered as a valuable benefaction to this country.' From the extremity of the Highlands, and from the Orkney and Shetland Islands, these fish are sent up to the London market in ice; and when the season is at its height, and the catch more than can be taken off hand fresh, they are then salted, pickled, or dried, for winter consumption at home, and for the foreign markets. Perhaps the fishery of

the Tweed is the first in point of quantity caught, which is sometimes quite astonishing, several hundreds being taken at a single draught of the net. Formerly it was all pickled and kilted, after being boiled, and sent to London under the name of Newcastle salmon; but the present mode has so raised the value of the fish as nearly to have banished this article of food from the inhabitants in the environs of the fishery, except as an expensive luxury. Within memory, salted salmon formed a material article of economy in all the farm houses of the vale of Tweed, inasmuch that indoor servants often bargained that they should not be obliged to take more than two weekly meals of salmon. It could then be bought at 2s. the stone, of nineteen pounds weight; it is now never below 12s., often 36s., and sometimes two guineas.

7. *S. thymallus*, the umber, or grayling, haunts clear and rapid streams, and particularly those that flow through mountainous countries. It is found in the rivers of Derbyshire; in some of those of the north; in the Tame near Ludlow; in the Lug, and other streams near Leominster. It is also very common in Lapland; the inhabitants make use of the entrails of this fish instead of rennet, to make the cheese which they get from the milk of the rein deer. It is a voracious fish, rises freely to the fly, and will very eagerly take a bait. It is a very swift swimmer, and disappears like the transient passage of a shadow, whence it derived the name of *umbræ*.

8. *S. trutta*, the sea trout, migrates like the salmon up several of our rivers, spawns, and returns to the sea. The shape is more thick than the common trout; the irides silver; the head thick, smooth, and dusky, with a gloss of blue and green; the back of the same color, which grows fainter towards the side line. The back is plain, but the sides, as far as the lateral line, are marked with large distinct irregular-shaped spots of black; the lateral line straight; the sides beneath the line and the belly are white. Tail broad, and even at the end. The flesh when boiled is of a pale red, but well flavored.

SALMON, *n. s.* Lat. *salmo*; Fr. *saumon*. A well-known fish.

They poke them with an instrument somewhat like the salmon spear. *Carew's Survey of Cornwall.*

They take salmon and trouts by groping and tickling them under the bellies in the pools, where they hover, and so throw them on land. *Carew.*

Of fishes, you find in arms the whale, dolphin, salmon, and trout. *Peucham.*

The salmon is accounted the king of fresh water fish, and is bred in rivers relating to the sea, yet so far from it as admits no tincture of brackishness. Sir Francis Bacon observes the age of a salmon exceeds not ten years. After he is got into the sea he becomes from a samlet, not so big as a gudgeon, to be a salmon in as short a time as a gosling becomes a goose. *Walton's Angler.*

There is in many rivers that relate to the sea salmon trouts as much different from others, in shape and spots, as sheep differ in their shape and bigness. *Id.*

SALMON, in ichthyology. See SALMO, No. 6.

SALMON FISHERY, &c. See FISHERY.

SALMON (Nathaniel), a celebrated English divine, physician, and antiquarian, was the son

of the Rev. Thomas Salmon, M. A., rector of Mepsall. He was admitted of Benet College, Cambridge, June 11th, 1690, and took the degree of LL. D. in 1695. He then entered into orders, and became curate of Westmill, in Hertfordshire; but, although he had taken the oaths to king William III., he refused to do so to queen Anne; and, being therefore turned out of his cure, he studied physic, and practised at St. Ives and Bishop's Stortford. He was married, and left three daughters. He published, 1. A Survey of the Roman Antiquities in the Midland counties of England; in 8vo., 1726. 2. A Survey of the Roman Stations in Britain, according to the Roman Itinerary; 8vo., 1728. 3. The History of Hertfordshire, &c., fol., 1728. 4. The Lives of the English Bishops from the Restoration to the Revolution; 1733. 5. The Antiquities of Surrey, &c., 8vo., 1736. 6. The History and Antiquities of Essex, folio. This work was left unfinished at his death, in 1738.

SALMON (Thomas), an eminent English historian and geographer, younger brother to the Dr. He wrote many useful works, particularly, 1. A Geographical Grammar; 8vo., which went through numberless editions. 2. A History of England. 3. An examination of Bishop Burnet's History of his own times. He died in April 1743.

SALMONE, a town of Peloponnesus, in Elis, with a fountain, forty stadia from Olympia; thence called Salmonis.

SALMONEUS, in fabulous history, a king of Elis, the son of Æolus and Enarete, and brother of Sisyphus. He married Alcidence by whom he had Tyro. Ambitious to be reckoned a god, he imitated thunder and lightning by artificial fire-works. Jupiter therefore struck him with a real thunderbolt, and placed him in hell near his brother Sisyphus.

SALON, a town in the south-east of France, in Provence, department of the mouths of the Rhone. It is situated on a height, on the canal of Capronne, and its trade consists in the produce of the neighbouring country, viz. corn, cattle, wool, olives and silk. Inhabitants 6300. Eighteen miles W. N. W. of Aix, and nineteen east of Arles.

SALONA, a town of Austrian Dalmatia, on a bay of the Adriatic, once a town of importance, having been taken and destroyed in the reign of Augustus, but rebuilt by Tiberius, who sent thither a Roman colony, and made it the capital of Illyricum. This rank it long held; but seems to have declined after the reign of Dioclesian. Two miles north-east of Spalatro.

SALONA, a considerable town of Livadia, near a bay called the gulf of Salona, which is an inlet from the gulf of Corinth. Salona is situated in a fertile and highly cultivated plain, at the foot of mount Parnassus, and is supposed to occupy the site of the ancient Amphissa. The modern town has no fortifications. Its population is estimated at 8000, and its trade is considerable. Salona is the see of a bishop, subject to the archbishop of Athens. Forty-eight miles north-east of Lepanto.

SALONICA anciently called Thessalonica, Hallia, and Therma, a large and handsome city

of Macedon, standing at the northern extremity of a great bay, and on the acclivity of a steep hill, which rises from the bay at its north-east extremity. The circumference of the walls is about five miles, and the fortress has seven towers. The domes and minarets of mosques are seen rising from among the other buildings, environed by cypresses, and giving a general air of splendor to the place. In ancient times this was a comparatively small place, and is indebted for its increase to the advantage of its position. With the country to the north, one of the most fertile districts in Macedon, it communicates by land, or by the river Vardari, the ancient Axios. The articles collected in Salonica, viz. cotton, tobacco, corn, and wool, are exported to different parts of Europe. The Turks never carried on much business here; it is in the hands of Greeks, Jews, and Frank or French, Italian, English, or Dutch merchants, all of whom have consuls here. The population is computed at 70,000.

Salonica has few antiquities, except the propylæa of the ancient Hippodrome, the alto-relievos on which are represented in a series of beautiful and accurate engravings, in Stuart's Antiquities of Athens. 272 miles west of Constantinople, and 252 E. S. E. of Ragusa. Long. 22° 56' E., lat. 40° 38' 7" N.

SALONINA, the wife of the emperor Gallienus, eminent for her public and private virtues. She patronised the arts and sciences, and to her Rome was greatly indebted for a short period of prosperity. But her virtues could not preserve her from the murderers of her husband, who assassinated both, A. D. 268.

SALSETTE, an island on the western coast of Hindostan, and province of Aurungabad, formerly separated from Bombay by a strait 200 yards wide, across which, in the year 1805, a causeway was carried. This island is eighteen miles long, by fourteen broad, and is well adapted for sugar, cotton, hemp, indigo, &c.; but it has hitherto been kept in a state of nature, for the purpose of supplying Bombay with wood, charcoal, and sea salt. Salsette is remarkably rich in antiquities, and the remains of reservoirs, with flights of stone steps round them, the ruins of temples, &c. The most remarkable object, however, is the caverns at Kennere, which contain two colossal statues of Boodh. One of these was converted by the Portuguese into a church. In 1773, during a rupture with the Mahrattas, it was occupied by the British troops, and has ever since remained in their possession. Janna is the chief town.

SAL'SIFY, *n. s.* A plant.

Salsify, or the common sort of goatsbeard, is of a very long oval figure, as if it were cuds all over streaked, and engraven in the spaces between the streaks, which are sharp-pointed towards the end.

Mortimer's Husbandry.

SALSOACID, *n. s.* Lat. *'salsus* and *acidus*. Having a taste compounded of saltness and sourness.

The distinction of salts, whereby they are discriminated into acid, volatile, or *salsuginous*, if I may so call the fugitive salts of animal substances, and fixed or alcalizate, may appear in much use in natural philosophy.

Boyle.

The *salsoacids* help its passing off; as sal prunel.
Flower.

SALSOLA, glass-wort; a genus of the digynia order, and pentandria class of plants, natural order twelfth, holoracæa: CAL. pentaphyllous: CAPS. monospermous, with a screwed seed. The species are these:—

1. *S. kali*, growing naturally in the salt marshes in divers parts of England. It is an annual plant, which rises above five or six inches high, sending out many side branches, which spread on every side, garnished with short awl-shaped leaves, which are fleshy, and terminate in acute spines. The flowers are produced from the side of the branches, to which they sit close, and are encompassed by short prickly leaves; they are small, and of an herbaceous color. The seeds are wrapped up in the empalement of the flower, and ripen in autumn; soon after which the plant decays.

2. *S. rosacea*, growing naturally in Tartary, is an annual plant, whose stalks are herbaceous, and seldom rise more than five or six inches high. The leaves are awl-shaped, ending in acute points; the empalements of the flowers spread open; the flowers are small, and of a rose color, but soon fade; the seeds are like those of the other kinds.

3. *S. soda* rises with herbaceous stalks, nearly three feet high, spreading wide. The leaves on the principal stalk, and those on the lower part of the branches, are long, slender, and have no spines; those on the upper part of the stalk and branches are slender, short, and crooked. At the base of the leaves are produced the flowers, which are small and hardly perceptible; the empalement of the flower afterwards encompasses the capsule, which contains one cochleated seed. All the sorts of glass-wort are sometimes promiscuously used for making kali, but this species is esteemed best. The manner of making it is as follows:—Having dug a trench near the sea, they place laths across it, on which they lay the herbs in heaps; and, having made a fire below, the liquor which runs out of the herbs drops to the bottom, which at length thickening, becomes kali, which is partly of a black, and partly of an ash color, very sharp and corrosive, and of a saltish taste. This, when thoroughly hardened, becomes like a stone; and in that state is transported to different countries for the making of glass.

4. *S. tragus* grows naturally on the sandy shores of the south of France, Spain, and Italy. This is also an annual plant, which sends out many diffused stalks, garnished with linear leaves an inch long, ending with sharp spines. The flowers come out from the side of the stalks in the same manner as those of the former; their empalements are blunt, and not so closely encompassed with leaves as those of the other.

5. *S. vermiculata* grows naturally in Spain. This has shrubby perennial stalks, which rise three or four feet high, sending out many side branches, garnished with fleshy, oval, acute pointed leaves, coming out in clusters from the side of the branches, they are hoary, and have stiff prickles. The flowers are produced from between the leaves toward the end of the

branches; they are so small as scarcely to be discerned unless they are closely viewed. The seeds are like those of the other kinds.

SALT, *n. s., adj., & v. a.*

SALT-CAT, *n. s.*

SALT-CELLAR,

SALTER,

SALTERN,

SALTPETRE.

Saxon *realt*; Goth., Swed., and Dan. *salt*; Fr. *sel*; Lat. *sal*. A well known combination of an acid with an alkali, earth, or metallic oxide: impregnated with, or abounding in salt. See CHEMISTRY, and below. Taste; smack; relish; wit: to season with salt: a salt-cat is a name for a lump of salt, see below: salt-cellar, the vessel that usually holds the salt: saltern, a salt-pan or work: saltish, saltly, and saltness, correspond: saltpetre (Lat. *sal petrae*) nitre.

He shall inhabit the parched places in the wilderness in a salt land, and not inhabited.

Jer. xvii. 6.

Moab and Ammon shall be as the breeding of nettles, salt-pits, and a perpetual desolation.

Zech. ii. 9.

Is not discourse, manhood, learning, gentleness, virtue, and liberality, the spice and salt that seasons a man?

Shakespeare.

Though we are justices and doctors, and churchmen, Mr. Page, we have some salt of our youth in us; we are the sons of women.

Id. Merry Wives of Windsor.

We were better parch in Africk sun,
Than in the pride and salt scorn of his eyes.

Shakespeare.

Thou old and true Menenius,
Thy tears are *salter* than a youngc man's,
And venomous to thine eyes.

Id. Coriolanus.

Be a whore still:

Make use of thy salt hours, season the slaves
For tubs and baths; bring down the rose-cheeked
youth

To the tub-fast and the diet.

Id. Timon.

This new-married man, approaching here,
Whose salt imagination yet hath wronged
Your well-defended honour, you must pardon.

Shakespeare.

After these local names, the most have been derived from occupations; as smith, *salter*; armourer.

Camden's Remains.

Some think their wits have been asleep, except they dart out somewhat that is piquant and to the quick; men ought to find the difference between saltness and bitterness.

Bacon.

Cicero prettily calls them *salinas salt-pans*, that you may extract salt out of, and sprinkle where you please.

Id.

It hath been observed by the ancients, that salt water will dissolve salt put into it in less time than fresh water.

Id.

Nitre, or *saltpetre*, having a crude and windy spirit, by the heat of the fire suddenly dilateth.

Id.

If the offering was of flesh, it was salted thrice.

Broune.

Since salts differ much, some being fixt, some volatile, some acid, and some urinous, the two qualities wherein they agree are, that it is easily dissoluble in water, and affects the palate with a sapour good or evil.

Boyle.

Nitre or *saltpetre*, in heaps of earth, has been extracted, if they be exposed to the air, so as to be kept from rain.

Loche.

Soils of a saltish nature improve sandy ground.

Mortimer.

In Cheshire they improve their lands by letting

out the water of the salt springs on them, always after rain.

Id.

Many give a lump of salt, which they usually call a *salt-cat*, made at the *saltern*, which makes the pigeons much affect the place.

Id. Husbandry.
A leap into salt waters very often gives a new motion to the spirits, and a new turn to the blood.

Addison.

A particle of salt may be compared to a chaos, being dense, hard, dry, earthy in the centre, and rare, soft, and moist in the circumference.

Newton's Opticks.

The stratum lay at about twenty-five fathoms, by the duke of Somerset's salt-pans near Whitehaven.

Woodward on Fossils.

Salts are bodies friable and brittle, in some degree pellucid, sharp or pungent to the taste, and dissoluble in water; but, after that is evaporated, incorporating, crystallising, and forming themselves into angular figures.

Woodward.

When any salt is spilt on the table-cloth, shake it out into the saltcellar.

Swift's Directions to the Butler.

SALT is distinguished by some into three kinds: native or rock salt; common, or sea salt, or white salt; and bay salt.

SALT, BAY. Under the title of bay salt are ranked all kinds of common salt extracted from the water wherein it is dissolved, by means of the sun's heat, and the operation of the air; whether the water from which it is extracted be sea water, or natural brine drawn from wells and springs, or salt water stagnating in ponds and lakes. It does not appear that there is any other thing requisite in the formation of bay salt, than to evaporate the sea water with an exceeding gentle heat; and it is even very probable that our common sea salt by a second solution and crystallisation might attain the requisite degree of purity.

SALT, COMMON, or sea salt, or white salt, the name of that salt extracted from the waters of the ocean, which is used in great quantities for preserving provisions, &c. It is composed of muriatic acid, saturated with soda; and hence, in the new chemical nomenclature, it is called muriate of soda. See CHEMISTRY, INDEX. It is commonly found in salt water and salt springs, in the proportion of thirty-six per cent. It is found also in coals and in beds of gypsum. Of this most useful commodity there are ample stores on land as well as in the ocean. There are few countries which do not afford vast quantities of rock or fossil salt. Mines of it have long been discovered and wrought in England, Spain, Italy, Germany, Hungary, Poland, and other countries of Europe. In several parts of the world there are huge mountains which wholly consist of fossil salt. Of this kind are two mountains in Russia, near Astracan; several in the kingdoms of Tunis and Algiers, in Africa; and several also in Asia; and the whole island of Ormus in the Persian gulf almost entirely consists of fossil salt. The new world is likewise stored with treasures of this useful mineral, as well as with all other kinds of subterranean productions. The sea affords such vast plenty of common salt, that all mankind might thence be supplied with quantities sufficient for their occasions. There are also innumerable springs,

ponds, lakes, and rivers, impregnated with common salt, from which the inhabitants of many countries are plentifully supplied therewith. In some countries which are remote from the sea, and have little commerce, and which are not blessed with mines of salt or salt waters, the necessities of the inhabitants have forced them to invent a method of extracting their common salt from the ashes of vegetables. And the ingenious Dr. Fothergill extracted plenty of it from the ashes of fern. See Medical Essays, vol. v. article 13. Mr. Boyle discovered common salt in human blood and urine. 'I have observed it,' says Mr. Brownrigg, 'not only in human urine, but also in that of dogs, horses, and black cattle. It may easily be discovered in these, and many other liquids impregnated with it, by certain very regular and beautiful stary figures which appear in their surfaces after congelation. These figures I first observed in the great frost in 1739. The dung of such animals as feed upon grass or grain doth also contain plenty of common salt.' Naturalists, observing the great variety of forms under which this salt appears, have thought fit to rank the several kinds of it under certain general classes; distinguishing it, more usually, into rock, or fossil salt, sea salt, and brine or fountain salt. To which classes others might be added, of those muriatic salts which are found in animal and vegetable substances. These several kinds of common salt often differ from each other in their outward form and appearance, or in such accidental properties as they derive from the heterogeneous substances with which they are mixed. But, when perfectly pure, they have all the same qualities; so that chemists, by the exactest enquiries, have not been able to discover any essential difference between them. Immense masses of it are found in different countries, which require only to be dug out and reduced to powder. In this state it is called rock salt. The water of the ocean also contains a great proportion of this salt, to which indeed it owes its taste, and the power it possesses of resisting freezing till cooled down to zero. When this water is evaporated sufficiently, the salt precipitates in crystals. It is by this process that it is obtained in this country. But the salt of commerce is not sufficiently pure for the purposes of chemistry, as it contains usually muriate of lime, &c.; but it may be obtained pure by the following process:—Dissolve it in four times its weight of pure water, and filter the solution. Drop into it a solution of carbonate of soda, as long as any precipitate continues to fall. Separate the precipitate by filtration, and evaporate slowly till the salt crystallises. Muriate of soda usually crystallises in cubes, which, according to Haüy, are the primitive form of its crystals and its integral particles. It is the most common and most useful seasoner of food; it preserves meat from putrefaction, and butter from rancidity; it serves for an enamel to the surfaces of coarse stone ware; it is an ingredient in many processes of dyeing; metallurgists use it in many of their essays. Its utility in chemistry is equally extensive. From it muriatic and oxy-muriatic acids are obtained; and from it also of late great

quantities of soda have been extracted, and introduced with advantage as a substitute for the soda formerly obtained from the combustion of vegetables. The acid is easily extracted from this salt by means of sulphuric acid; but to obtain the alkali at a cheap rate is not so easy. The methods which have hitherto succeeded may be reduced to two:—1. Muriate of soda may be decomposed by some substance which has a stronger affinity for muriatic acid than soda has. The soda by this process is set at liberty, and may be obtained by evaporation and crystallisation. There are three substances capable of setting the base of common salt at liberty, and of furnishing soda, either pure or in the state of carbonate. These are litharge, lime, and iron. When about four parts of litharge and one of common salt, properly pounded and mixed, are macerated in a little water for several hours and stirred repeatedly, the muriatic acid gradually combines with the oxide of lead, and forms a muriate, while the soda is left in solution, and may be obtained separately by filtration and evaporation. The decomposition goes on still more rapidly, if the mixture be heated during the process. That the alkali may be extracted from common salt by lime is a fact, for which we are indebted to Scheele. Cahausen indeed had hinted at it in 1717, but his treatise had been forgotten. Scheele ascertained that a mixture of lime and common salt, formed into a paste, and placed in a moist cellar, was covered with an efflorescence of soda in fifteen days. Berthollet has rendered it probable that the soda which is found abundantly in the west of Egypt is formed naturally by a similar process. To Scheele likewise we owe the discovery that common salt may be decomposed by iron. He observed that a wooden vessel, placed in a cellar, and containing brine, had its iron hoops covered with an efflorescence of soda. This induced him to dip a plate of iron into a solution of common salt, and to suspend it in a cellar. After an interval of fourteen days, he found his iron incrustated with soda. The same decomposition takes place also if zinc or copper be substituted for iron. 2. The second method of extracting soda from common salt is less direct. It consists in displacing the muriatic by some other acid, which may be afterwards easily decomposed or displaced; thus the soda is left behind at last, in a state of purity. The acids which have been made use of are the sulphuric and acetic; the boracic, phosphoric, and arsenic acids might indeed be employed, as they decompose common salt in a high temperature. The products in that case would be borat, or the phosphate or arseniate of the same base, according to the acid. These salts might be afterwards decomposed by lime, and the soda obtained separate. But these acids are a great deal too high priced to admit of their employment. Sulphuric acid may be either employed in a separate state, or in combination with bases, when the salts which it then forms can be procured at a sufficiently cheap rate. Alum, sulphate of lime, and sulphate of iron, have been respectively employed with advantage to decompose common salt, and obtain sulphate of soda.

Alum was first employed for that purpose by Constantini, a physician of Melle near Osna-burgh, about 1650. The process does not succeed but at a low temperature. Sulphate of lime decomposes common salt when formed with it into balls, and exposed to a strong heat. Much discussion has taken place among the German chemists about the possibility of decomposing common salt by sulphate of iron. That sulphate of soda may be obtained by exposing a mixture of these two salts to a strong heat was first announced by Vander Ballen. This was contradicted by Hahneman, but confirmed by the experiments of Tuhten, Lieblein, and Wiegleb. It succeeded completely with the French commissioners, De Lievre, Pelletier, Darcet, and Girond, who were appointed, in 1794, to examine the different processes for obtaining soda from common salt. They ascertained also that pyrites or sulphureted oxide of iron may be employed for the same purpose. After obtaining the sulphate of soda it is necessary to expel the acid, to obtain the soda separately. This is done by calcining the salt mixed with a certain proportion of charcoal or pit-coal. By this process it is converted into sulphuret of soda, and the sulphur may be abstracted by the intervention of iron or chalk. When the sulphuret of soda is nearly in fusion, small bits of iron (the parings of tin-plate answer best) are thrown in gradually in sufficient quantity to decompose the sulphate. The fire is raised till the mixture melts. The iron, having a stronger affinity for the sulphur, combines with it, and leaves the soda, which may be separated by solution in water, filtration, and evaporation.

SALT, COMMON, METHOD OF PREPARING. Without entering into any particular detail of the processes used for the preparation of bay salt, in different parts of the world, we shall only give a brief account of the best methods of preparing common salt. At some convenient place near the sea-shore is erected the saltern. This is a long low building, consisting of two parts; one of which is called the fore-house, and the other the pan-house or boiling-house. The fore-house serves to receive the fuel, and cover the workmen; and in the boiling-house are placed the furnace and pan, in which the salt is made. Sometimes they have two pans, one at each end of the saltern; and the part appropriated for the fuel and workmen is in the middle. The furnace opens into the fore-house by two mouths, beneath each of which is a mouth to the ash-pits. To the mouths of the furnace doors are fitted; and over them a wall is carried up to the roof, which divides the fore-house from the boiling-house, and prevents the dust of the coal and the ashes, and smoke of the furnace from falling into the salt pan. The fore-house communicates with the boiling-house by a door placed in the wall which divides them. The body of the furnace consists of two chambers, divided from each other by a brick partition called the mid-feather; which from a broad base terminates in a narrow edge nigh the top of the furnace, and, by means of short pillars of cast iron erected upon it, supports the bottom of the salt pan: it also fills up a considerable part of the furnace,

which otherwise would be too large, and would consume more coals than by the help of this contrivance are required. To each chamber of the furnace is fitted a grate, through which the ashes fall into the ash-pits. The grates are made of long bars of iron, supported underneath by strong cross bars of the same metal. They are not continued to the farthest part of the furnace, it being unnecessary to throw in the fuel so far; for the flame is driven from the fire on the grate to the farthest part of the furnace, and thence passes, together with the smoke, through two flues into the chimney; and thus the bottom of the salt pan is every where equally heated. The salt pans are made of an oblong form, flat at the bottom, with the sides erected at right angles; the length of some of these pans is fifteen feet, the breadth twelve feet, and the depth sixteen inches; but at different works they are of different dimensions. They are commonly made of plates of iron, joined together with nails, and the joints are filled with a strong cement. Within the pan five or six strong beams of iron are fixed to its opposite sides at equal distances, parallel to each other and to the bottom of the pan, from which they are distant about eight inches. From these beams hang down strong iron hooks, which are linked to other hooks or clasps of iron firmly nailed to the bottom of the pan; and thus the bottom of the pan is supported, and prevented from bending down or changing its figure. The plates most commonly used are of malleable iron, about four feet and a half long, a foot broad, and the third of an inch in thickness. The Scots prefer smaller plates, fourteen or fifteen inches square. Several make the sides of the pan, where they are not exposed to the fire, of lead; those parts, when made of iron, being found to consume fast in rust from the steam of the pan. Some have used plates of cast iron, five or six feet square, and an inch in thickness; but they are very subject to break when unequally heated, and shaken (as they frequently are) by the violent boiling of the liquor. The cement most commonly used to fill the joints is plaster made of lime. The pan thus formed is placed over the furnace, being supported at the four corners by brick work, but along the middle, and at the sides and ends, by round pillars of cast iron, called taplins, which are placed at three feet distance from each other, being about eight inches high, and at the top, where smallest, four inches in diameter. By means of these pillars the heat of the fire penetrates equally to all parts of the bottom of the pan, its four corners only excepted. Care is also taken to prevent the smoke of the furnace from passing into the boiling-house, by bricks and strong cement, which are closely applied to every side of the salt pan. In some places, as at Blyth in Northumberland, besides the common salt-pans here described, they have a preparing pan placed between two salt-pans, in the middle part of the building, which in other works is the fore-house. The sea-water, being received into this preparing pan, is there heated and in part evaporated by the flame and heat conveyed under it through flues from the two furnaces of the salt-pans; and the hot water, as occasion requires, is con-

veyed through troughs from the preparing pan into the salt-pans. Various other contrivances have been invented to lessen the expense of fuel, and several patents have been obtained for that purpose; but the salt-boilers have found their old methods the most convenient. Between the sides of the pan and walls of the boiling-house there runs a walk five or six feet broad, where the workmen stand when they draw the salt, or have any other business in the boiling-house. The same walk is continued at the end of the pan, next to the chimney; but the pan is placed close to the wall at the end adjoining to the fore-house. The roof of the boiling-house is covered with boards fastened on with nails of wood, iron nails quickly mouldering into rust. In the roof are several openings to convey off the watery vapors; and on each side of it a window or two, which the workmen open when they look into the pan whilst it is boiling. Not far distant from the saltern on the sea-shore, between full sea and low-water marks, they also make a little pond in the rocks, or with stones on the sand, which they call their sump. From this pond they lay a pipe, through which, when the tide is in, the sea-water runs into a well adjoining to the saltern; and from this well they pump it into the troughs, by which it is conveyed into their ship or cistern, where it is stored up until they have occasion to use it. The cistern is built close to the saltern, and may be placed most conveniently between the two boiling-houses, on the back side of the fore-house; it is made either of wood or brick and clay: it sometimes wants a cover, but ought to be covered with a shed, that the salt-water contained therein may not be weakened by rains, nor mixed with soot and other impurities. It should be placed so high that the water may conveniently run out of it through a trough into the salt pans. Besides the buildings already mentioned, several others are required; as store-houses for the salt cisterns for the bittren, an office for his majesty's salt-officers, and a dwelling-house for the salt-boilers. All things being thus prepared, and the sea-water having stood in the cistern till the mud and sand are settled to the bottom, it is drawn off into the salt-pan. And at the four corners of the salt-pan, where the flame does not touch its bottom, are placed four small lead pans, called scratch-pans, which, for a salt-pan of the size above-mentioned, are usually about a foot and a half long, a foot broad, and three inches deep; and have a bow or circular handle of iron, by which they may be drawn out with a hook when the liquor in the pan is boiling. The salt-pan being filled with sea-water, a strong fire of pit-coal is lighted in the furnace; and then, for a pan which contains about 400 gallons, the salt-boiler takes the whites of three eggs, and incorporates them well with two or three gallons of sea-water, which he pours into the salt-pan while the water contained therein is only lukewarm; and immediately stirs it about with a rake, that the whites of the eggs may every where be equally mixed with the salt water. Instead of whites of eggs, at many salterns, as at most of these near Newcastle, they use blood from the butchers, either of sheep or black cattle, to clarify the sea-water; and at many others they do not give

themselves the trouble of clarifying it. As the water grows hot, the whites of eggs separate from it a black frothy scum, which arises to the surface of the water, and covers it all over. As soon as the pan begins to boil this scum is all risen, and it is then time to skim it off. The most convenient instruments for this purpose are skimmers of thin ash boards, six or eight inches broad, and so long that they may reach above half way over the salt-pan. These skimmers have handles fitted to them; and the salt-boiler and his assistant, each holding one of them on the opposite sides of the pan, apply them so to each other that they overlap in the middle, and, beginning at one end of the pan, carry them gently forward together, along the surface of the boiling liquor to the other end; and thus, without breaking the scum, collect it all to one end of the pan, from whence they easily take it out. After the water is skimmed, it appears perfectly clear and transparent; and they continue boiling it briskly, till so much of the fresh or aqueous part is evaporated that what remains in the pan is a strong brine almost fully saturated with salt, so that small saline crystals begin to form on its surface; which operation, in a pan filled fifteen inches deep with water, is usually performed in five hours. The pan is then filled up a second time with clear sea-water drawn from the cistern; and, about the time when it is half filled, the scratch-pans are taken out, and, being emptied of the scratch found in them, are again placed in the corners of the salt-pan. The scratch taken out of these pans is a fine white calcareous earth found in the form of powder, which separates from the sea-water during its coction, before the salt begins to form in grains. This subtle powder is violently agitated by the boiling liquor, until it is driven to the corners of the pan, where, the motion of the liquor being more gentle, it subsides into the scratch-pans placed there to receive it, and in them it remains undisturbed; and thus the greatest part of it is separated from the brine. After the pan has again been filled up with sea-water, three whites of eggs are mixed with the liquor, by which it is clarified a second time, in the manner above described; and it is afterwards boiled down to a strong brine as at first; which second boiling may take up about four hours. The pan is then filled up a third time with clear sea-water; and after that a fourth time; the liquor being each time clarified and boiled down to a strong brine, as before related; and the scratch-pans being taken out and emptied every time that the pan is filled up. Then, at the fourth boiling, as soon as the crystals begin to form on the surface of the brine, they slacken the fire, and only suffer the brine to simmer, or boil very gently. In this heat they constantly endeavour to keep it all the time that the salt corns or granulates, which may be nine or ten hours. The salt is said to granulate, when its minute crystals cohere together into little masses or grains, which sink down in the brine and lie at the bottom of the salt-pan. When most of the liquor is evaporated, and the salt thus lies in the pan almost dry on its surface, it is then time to draw it out. This part of the process is performed by raking the salt to one side of the pan into a long heap, wher it drains a

while from the brine, and is then emptied out into barrows or other proper vessels, and carried into the store-house, and delivered into the custody of his majesty's officers. And in this manner the whole process is performed in twenty-four hours, the salt being usually drawn every morning. In the store-house the salt is put hot into drabs, which are partitions like stalls for horses, lined on three sides and at the bottom with boards, and having a sliding board on the foreside to put in or draw out as occasion requires. The bottoms are made shelving, being highest at the back side, and gradually inclining forwards; by which means the saline liquor, which remains mixed with the salt, easily drains from it; and the salt in three or four days becomes sufficiently dry, and is then taken out of the drabs and laid up in large heaps, where it is ready for sale. The saline liquor which drains from the salt is not a pure brine of common salt, but has a sharp and bitter taste, and is therefore called bitter; this liquor at some works they save for particular uses, at others throw away. A considerable quantity of this bitter is left at the bottom of the pan after the process is finished; which, as it contains much salt, they suffer to remain in the pan, when it is filled up with sea-water. But at each process this liquor becomes more sharp and bitter, and also increases in quantity; so that, after the third or fourth process is finished, they are obliged to take it out of the pan, otherwise it mixes in such quantities with the salt as to give it a bitter taste, and disposes it to grow soft and run in the open air, and renders it unfit for domestic uses. After each process there also adheres to the bottom and sides of the pan a white stony crust, of the same calcareous substance with that before collected from the boiling liquor. This the operators call stone-scratch, distinguishing the other found in the lead pans by the name of powder-scratch. Once in eight or ten days they separate the stone-scratch from their pans with iron picks, and in several places find it a quarter of an inch in thickness. If this stony crust is suffered to adhere to the pan much longer, it grows so thick that the pan is burnt by the fire, and quickly wears away.

SALT, NATIVE, or ROCK SALT, or fossil salt, is common salt dug out of the earth. This kind of salt is in several countries found so pure that it serves for most domestic uses, without any previous preparation (triture excepted); for, of all natural salts, rock-salt is the most abundantly furnished by nature in various parts of the world, being found in large masses, occupying great tracts of land. It is generally formed in strata under the surface of the earth, as in Hungary, Muscovy, Siberia, Poland, Calabria, Egypt, Ethiopia, and the East Indies. 'In England,' says Magellan, 'the salt mines at Northwich are in a high ground, and contain it in layers or strata of various colors, of which the yellow and brown are the most plentiful, as I have observed on the spot, which I visited in June 1782, in company with my worthy and learned friend Mr. Volta, professor of natural philosophy in the university of Pavia, and well known by his great abilities and many discoveries in that branch of

knowledge. The mine into which we descended was excavated in the form of a vast dome or vault under ground, supported by various columns of the salt, that were purposely left to support the incumbent weight. And, the workmen having lighted a number of candles all round its circumference, it furnished us with the most agreeable and surprising sight, whilst we were descending in the large tub which serves to bring up the lumps that are broken from the mine, &c. See the description of the famous salt mines of Wieliczka in Poland, by Mr. Bernard, in the *Journal de Physique*, vol. xvi., for 1780, p. 459, in which the miraculous tales concerning these subterraneous habitations, villages, and towns, are reduced to their proper magnitude and estimate.' But the English fossil salt is unfit for the uses of the kitchen, until by solution and coction it is freed from several impurities, and reduced into white salt. The British white salt is not so proper as several kinds of bay salt for curing fish and such flesh meats as are intended for sea provisions, or for exportation into hot countries. So that for these purposes we are obliged, either wholly or in part, to use bay salt, which we purchase in France, Spain, and other foreign countries.

It is remarked by the writer of the account of the Agriculture of Cheshire, that, from some experiments made on different specimens of the rock-salt of that county, it would appear that the transparent kind of it is an almost pure muriate of soda, which contains no admixture of either earth or earthy salts; and that the color of the less transparent and brown specimens is derived from the earth that enters, in greater or less proportions, into their compositions. That on 480 grains of transparent rock-salt being dissolved in four ounces of distilled water, there was, first, no precipitate let fall, on the addition of carbonate of potash. Secondly, no alteration was produced by this solution on blue vegetable juices. Thirdly, on the addition of a few drops of tincture of galls, a slight purple tinge was given to the solution; and after standing some hours, there was a brown sediment at the bottom of the vessel. Fourthly, on the addition of muriate of barytes, there was no precipitate thrown down. From the first of these trials, it is supposed that rock-salt has no muriate of lime, or muriate of magnesia, combined with it; from the second, that it has no uncombined acid or alkali; from the third, that it contains some portion of iron; and from the fourth, or last, that there is no sulphate of lime contained in it. And that, on examining different specimens of the less transparent, and the brown rock-salt, with the same re-agents as in the above trials, it was found that these consisted of muriate of soda, or sea-salt, in combination with a certain proportion of earth, varying in quantity from one to thirty per cent.; also, that the earth was wholly the argillaceous or common clay; but that some of the specimens contained a few grains of sulphate of lime, in 480 of those of the rock-salt.

The beds of this salt are now well known to be the principal cause of the salt-brine springs in this county; and, in connexion with some

other circumstances, to have a great share in causing the vast differences in their strength, in different places.

Although rock-salt is found in various parts of the above district, there are no pits of it wrought at present, except in the vicinity of Northwich. Part of the inferior rock-salt which is procured there, is, it is said, used at some of the refineries in that neighbourhood; and a further quantity sent down the river Weaver, for the supply of the refineries at Frodsham, in the same county, and those on the banks of the Mersey, in Lancashire. The purer rock-salt, or that which is called in general Prussian rock, is carried by the same conveyance to the port of Liverpool; whence, according to the above writer, it is exported chiefly to Ireland, and the ports of the Baltic. The annual quantity sent down the first of the above rivers is found, on the average of ten years, to be 51,109 tons. But in this, it is observed, is included what is used at the Frodsham and Lancashire refineries, which may probably be about one-third of the whole. And it is added that it appears, from the report of the committee of the house of commons, appointed to inquire into the laws respecting the salt duties, printed in June, 1801, that,

in 1798	} were exported	} 20,162	} tons of rock-		
1799				} 33,913	} salt.
1800						} 34,939

Of this quantity,

in 1798	} tons	
1799		} 16,095
1800			} 22,374
	19,663	

were sent to different ports in Ireland; the remainder was principally exported to Denmark, Russia, Sweden, Prussia, and Germany. A small quantity went to Guernsey, Jersey, and the West Indies.

In regard to the original formation of the beds or strata of rock-salt, in this and other countries, different theories, opinions, and conjectures, have been formed and proposed; but it is one of those geological questions which are extremely embarrassing in their nature, and very difficult in their solution. Mr. Holland has, however, in the above work, ingeniously stated several suppositions on the subject, and the objections to which they are exposed. It is remarked that, wherever rock-salt is met with, sulphate of lime seems to be very generally discovered in mixture with the earthy strata above it. And the writer of the *Memoir sur le Sel Marin*, in the eleventh volume of the *Annals of Chemistry*, it is added, informs us, that this is the case in Poland, Transylvania, and Hungary; also, that there is commonly a layer of gypsum betwixt the strata of stone and the bed of salt. This gypseous layer is of different colors and is found crystallised, striated, and mixed with marine shells. The gypsum above the beds of rock-salt in Cheshire is, in like manner, found crystallised and striated, but no marine exuvie, or organic remains, it is observed, are ever met with in any of the strata. Nor does gypsum accompany it, as is usual in other places, as near Cordova, in Spain, where rock-salt forms a mountain 500 feet in height, and three miles in circumference, as noticed by

Kirwan and Townshend. Jars, the author of the *Voyages Metallurgiques*, who, it is asserted, has given the most particular account we have of the upper stratum of rock-salt about Northwich, remarks, that 'it appears to have been deposited by layers or beds of several colors;' and that 'these layers of salt are in such a position as to lead us to believe that the deposition of it was made in waves, similar to those which are formed on the sea-coast.' This, Mr. Holland says, coincides with an opinion suggested by Mr. Stanley, a friend of his, in regard to the probable origin of the beds of rock-salt now in existence in this district; who states that rock-salt is there found in several strata, one above the other, with intermediate beds of indurated clay, in the valleys of the Weaver, and those of the other rivers and brooks emptying themselves into it; but that it has never been found so near the surface, as to be above the level of the sea, or beneath any solid rock. If beds of rock-salt are to be considered as so many deposits of salt from sea-water, we must suppose the sea at some former period to have occupied the valleys in this country; and that, from time to time the communications were interrupted between these valleys (then deeper than they are now) and the sea. Earthquakes, or accumulations of sand in the estuaries of the Mersey and the Dee, might, it is contended, have caused the interruptions. Whenever the sea-water in the valleys became separated from the sea, the salt contained in it would subside by the natural process of evaporation. This, it is supposed, would the more easily have taken place, if, by any subterraneous fermentation, the ground below the water should have been heated. To account for a greater accumulation of salt than the sea-water filling all the lowest parts of the district would contain, we must suppose, it is said, that the obstruction interposed between the valleys and the sea had been repeatedly broken down and renewed again. Tides, unusually high, might occasionally overcome the resistance of the accumulated sand; and, if the intervals between the inundations were only of short duration, a subsidence of salt might take place equal to the formation of the thickest stratum of the rock-salt now existing. Long intervals between the inundations would admit of an accumulation of clay, and other earthy particles, over the salt thus deposited; and in this manner would be formed a new basis for another stratum of rock-salt to repose upon. Thus, it is thought, the regular and astonishing existence of salt strata may be accounted for, without necessarily supposing them coeval with the original formation of the earth; but, to confirm the theory, it is suggested that much observation and close enquiry into the natural history of the county would be required.

Mr. Holland, however, suggests that there are many objections to the theory which supposes the beds of rock-salt in this district to have been formed by deposition from the waters of the sea; some of which he states rather for the sake of promoting discussion and enquiry, than of affording any very decided opinion on a matter of so much doubt, uncertainty, and obscurity. Though on making a perpendicular section of the upper bed

of rock-salt, an irregular stratification, such as noticed by Jars, may, he says, by frequent accurate examination, be observed, the general appearance of the sides of the openings, whence the rock-salt is taken, is that of a confused and irregular red mass; in which some portions of salt have a greater, others a less, proportionate admixture of earth; while here and there they may be seen perfectly pure and transparent. He, therefore, asks, is it likely that this irregularity and confusion would have existed, had the beds of rock-salt in this district been formed by the evaporation of sea-water inundating the land at certain intervals of time, as the above theory supposes? On the contrary, says he, would it not be natural to expect from reasonings à priori, that the salt, thus deposited from sea-water, would be disposed in layers perfectly regular, and differing from one another merely in thickness, or a few other circumstances of inferior moment? Another fact which, it is supposed, invalidates, in some measure, the notion that the rock-salt has been deposited from the waters of the sea, is the great disproportion of quantity shown by analysis to exist between the earthy salts contained in the brine of this district, and those held in solution by sea-water; the ratio here being as one to ten, or the proportion which the earthy salts bear to the pure muriate of soda in sea-water is ten times greater than that which prevails in the Cheshire brine. The ascertaining of this fact proves, it is supposed, that the rock-salt (from the solution of which the brine is formed) is combined with a much smaller proportion of earthy salts than exists in sea-water; a circumstance difficult to be accounted for, on the supposition that the beds of this substance were formed by the evaporation of the sea-water, occupying the valleys and lowest parts of the land. It must be noticed, however, as worthy of attention, that the earthy salts intermixed with the rock-salt in the above district are the same which are held in solution by sea-water, being principally muriated magnesia and sulphate of lime.

There is, however, a still stronger proof, it is supposed, against the notion that the beds of rock-salt in this county are depositions from the sea-water, in the circumstance that no marine exuviae have ever been discovered in the strata. This, it is imagined, would almost indubitably have been the case, had the land been covered with sea-water during a period of sufficient length for the deposition of beds of salt of such prodigious thickness; and the fact, that no such exuviae do actually exist, is supposed in itself sufficient to induce a suspicion that the theory in question cannot be well founded. Other objections too it is observed, offer themselves to its validity; such as the enormous depth of sea-water necessary to the production of a body of rock-salt forty yards in thickness; the difficulty, if not impossibility, on such principles, of accounting for the formation of the singular insulated mountain of rock-salt at Cordova in Spain; with others of a more trivial nature, which will readily present themselves in this enquiry. It is, however, at the same time candidly acknowledged, that there are many facts and circumstances of actual observation, that confer a strong degree of

plausibility on the opinion, which it has been here contended against. The certainty that the surface of the county was at some former period much lower than it is at present, and the diminution of the thickness of the strata of rock-salt in proportion as they recede from the sea, are circumstances which undoubtedly range themselves on this side of the question: and, upon the whole, it is thought, that it may be doubted whether the theory, which regards the beds of rock-salt as deposits from sea-water, does not accord more exactly with existing appearances than any other which has been adduced on the subject.

According to the statement of Mr. Holland, in his Agricultural Survey, the first bed and pit of rock-salt was found and wrought in Marbury, at a small distance from the town of Northwich, at the depth of about thirty yards from the surface, in the year 1670, when searching for coal. The bed was thirty yards in thickness, and rested upon a stratum or layer of hard clay. In consequence of this discovery, other similar attempts were made; and, on sinking shafts or pits any where in the vicinity of it within the space of half a mile, it was found to exist at about the same depth from the surface of the earth, when not prevented from being dug down to by brine-springs or those of common water. This continued the only place in which it was found until the year 1779, when this sort of rock was again met with in searching for brine in the neighbourhood of Lawton, at the depth of about forty-two yards, but only of the thickness of about four feet; there being beneath it a bed of indurated clay ten yards in thickness, which, being penetrated through, a second stratum of rock-salt was discovered, twelve feet in thickness; and, on continuing the sinking of the pit, another layer of indurated clay, fifteen yards in thickness, was passed through; below which appeared a third stratum of rock-salt, which was unkn into not less than twenty-four yards; the lowest fourteen yards, being the purest, or the least mixed with other substances; were the only parts that were wrought.

Until this period, in the neighbourhood of Northwich, no attempts had, however, been made to sink pits in order to find a lower stratum of rock-salt; as the one which had been first met with was so thick, and furnished such an abundant supply for every demand, there could be no other inducement to this than the expectation of meeting with a stratum, at a greater depth, which might contain a less admixture of earthy matters. It would seem, too, that the fear of meeting with springs below, which might impede the working out of the materials from the pits, and even render this wholly impracticable, prevented the proprietors of them from sinking deeper. As, however, no inconvenience or interruption of this nature had occurred, on sinking through different alternate strata of rock-salt and clay at Lawton; and it had been found that there was a lower stratum of rock-salt there, which was more pure than those nearer the surface, the owners of one of the works or pits in this vicinity were induced, a little time after the trials at Lawton, as in 1781, to sink deeper than had yet been done, and to

pass through the bed or body of indurated clay lying underneath the rock-salt, which had been so long known and wrought. This indurated clayey material was found to be from ten to eleven yards in thickness; and immediately beneath it a second stratum of rock-salt was met with, the upper part of which differed little in purity from that of the higher stratum or layer of rock; but, on penetrating into it to the extent of from twenty to twenty-five yards, it was there found to be much more pure and free from earthy admixture. But it continued to have this increased degree of purity for four or five yards only; while, for fourteen yards still lower, to which depth the pit or shaft was sunk, the proportion of earthy matter was again as large as in the upper part of the stratum. It was therefore, on this account, thought useless to sink the pit to any greater depth. Many other proprietors of pits, shafts, or mines, in the same neighbourhood, it is stated, followed the example which had been thus set them; and penetrated through the bed of indurated clay lying beneath the upper stratum of rock-salt. A second stratum of rock-salt was constantly met with below this; and, on passing down into it, the same order of disposition as to purity was observed, as in the pit or mine in which it had been first noticed and examined; and the same has been found to prevail in all the pits, shafts, works, and mines, which have since been sunk in the same vicinity. It is further noticed that there is great uniformity in the strata which are passed through in sinking pits for rock-salt or brine; and that they very generally consist of clay and sulphate of lime mixed in various proportions; that of the latter somewhat increasing as the pit, shaft, or work, approaches the rock or brine. The workmen distinguish the clay by the appellation of metal, giving it the name of red, brown, or blue metal, according to its color; and the sulphate of lime by that of plaster.

The strata formed by these are, in general, close and compact; allowing very little fresh water to pass through them. In some places, however, they are broken and porous: and they admit so much fresh water into the pit or work, that, whenever they have been met with, it has been usual to discontinue any attempts to pass through them in sinking the pits. In these places the workmen call the metal saggy. It was thought not only impracticable to overcome a water, which vulgar prejudice had magnified into a great stream running under ground; but it was believed, even if the sinking could be continued below this, that the water could not be kept out of the pit, shaft, or work, and that it would either weaken the brine so as to destroy its value, or would find its way into the cavity of any rock, pit, or mine, which might be found below it. Later experience, it is said, has proved that these ideas were not altogether well founded. A few years ago an attempt was made in Witton to pass through this porous stratum, in order to get to the brine. It was met with about twenty-eight yards from the surface; the thickness of it was about thirteen feet; and the quantity of water, which was forced through it into the pit or shaft, was 360 gallons a minute. By means of

a steam-engine, the sinkers were enabled to pass through this water; to fix a gauge or curb a few yards below it, in a stratum of indurated clay; and thence to bring up a wooden frame, supporting a wall of puddled earth twelve inches thick, by which the access of the fresh water into the pit or shaft was in a great degree prevented, and an opportunity given to pass down to the brine below. A shaft was afterwards sunk through this porous stratum, for the purpose of obtaining rock-salt; which object was, after a short time, defeated, by the influx of brine into the shaft at the surface of the upper stratum of rock-salt; an accident originating in a cause completely distinct from the fresh water in the porous stratum or bed. An exact section of the different strata sunk through in reaching the second bed of rock-salt in the pit at Witton, near Northwich, is given by Mr. Holland in the above report; and all the strata in the neighbourhood of the last town are supposed to have nearly a similar disposition. The inclination of them in the pit or shaft at the above place was from north-west to south-east; and the dip about one yard in nine. The stratum through which the fresh water flowed is shown, and the level it found, it is said, was sixteen yards from the surface, which, it is remarked, nearly corresponds with that of the brook below. The line of separation, between the lowest stratum of earth and the first of rock-salt, is very exactly defined; they are perfectly distinct, and do not at all run into each other. It is farther noticed that, in carrying a horizontal tunnel for 100 yards along the upper stratum of rock-salt, this was found to be irregular and unequal on its surface; the irregularities in a great measure corresponding with those on the surface of the ground above.

Considerable salt-works are carried on in Scotland, and in the northern counties of this country on the sea-coast, by the evaporation of sea-water. At Lymington, in Hampshire, the sea-water is evaporated to one-sixth of the whole by the action of the sun and air.

A Mr. Lowndes some time since published a method of greatly improving the *English brine-salt*, so as to make it at least equal to the French bay-salt. His method is: let a brine-pan, containing about 800 gallons of liquor, be filled with brine to within an inch of the top; then make and light the fire, and, when the brine is just luke-warm, put in either an ounce of blood from the butcher's, or the whites of two eggs. Let the pan boil with all possible violence, and as the scum rises take it off. When the fresh or watery part is pretty well decreased, throw into the pan the third part of a pint of new ale, or the same quantity of the grounds of any malt liquor. When the brine begins to grain, add to it the quantity of a small nut of fresh butter, and, when the liquor has stood half an hour longer, draw out the salt. By this time the fire will be greatly abated, and so will the heat of the liquor; let no more fuel be thrown on the fire, but let the brine gently cool, till a person can just bear to put his hand into it; keep it in that degree of heat as nearly as possible, and when it has worked for some time, and is beginning to grain, throw in the quantity of a small nutmeg of fresh butter,

and about two minutes after that scatter throughout the pan, as equally as may be, an ounce and three quarters of common alum, pulverised very fine; then instantly, with the common iron scrape-pan, stir the brine very briskly in every part of the pan for about a minute; then let the pan settle, and constantly feed the fire, so that the brine may never be quite scalding hot, yet always a great deal more than luke-warm; let the pan stand working thus for about three days and nights, and then draw it, or take out the salt. The brine remaining will, by this time, be so cold that it will not work at all, therefore fresh coals must be thrown upon the fire, and the brine must boil for about half an hour, but not near so violently as before the first drawing; then, with the usual instrument, take out such salt as is beginning to fall, and put it apart; then let the pan settle and cool. When the brine becomes no hotter than one can just put one's hand into it, proceed as before, and let the quantity of alum not exceed an ounce and a quarter, and about eight-and-forty hours after draw the pan, and take out all the salt. Lowndes's Brine Salt improved.

Mr. Lowndes afterwards directs cinders to be chiefly used in preparing the fires, the better to preserve an equal heat, and by that means also he proposes saving a considerable expense, asserting that at present cinders are so little valued in Cheshire as to be thrown out into the highways. Mr. Lowndes adds that in a pan of the size before-mentioned, there may be prepared, at each process, 1600 lbs. weight of salt from the best brine in Cheshire, and 1066 lbs. from the ordinary brine of that county. This, as the process continues five days, is a little more than five bushels and a half of salt a day from the best brine, and a little more than four bushels a day from the ordinary kind.

The commerce of salt has formerly brought an immense profit to France, or rather to the royal treasury than to the makers and sellers, on account of the heavy duty. The English and Dutch, and (when they are at war with France) the Swedes and Danes, have taken off most of the salt of the Comté Nantois; paying for it, communibus annis, from twenty to thirty-five livres the load. That of Guerande has been preferred, by the English and Irish, to all the rest, as the best. Yet that of Bornœuf, though browner and heavier, is most used in France, as also throughout the Baltic; particularly in Poland, where, besides the ordinary uses, it serves in tilling the ground; being found to warm it, and prevent little vermin from gnawing the grain. The English and Dutch have often striven hard, in times of war, to do without the French salt; and to that end have endeavoured to take salt from the Spaniards and Portuguese; but there is a disagreeable sharpness and serosity natural to this salt, which renders it very unfit for the salting of flesh, fish, &c. To remove this they boil it with sea-water, and a little French salt, which they procure by means of neutral nations, which not only softens it, but increases its quantity by one-third. But it should seem their refining does not succeed to their wish, by the eagerness with which they return to the salt of Bretagne, &c

The duties on salt in this country are now wholly insignificant.

SALT, in chemistry. This term has been usually employed to denote a compound, in definite proportions, of any acid, with an alkali, earth, or metallic oxide. When the proportions of the constituents are so adjusted that the resulting substance does not affect the color of infusion of litmus, or red cabbage, it is then called a neutral salt. When the predominance of acid is evinced by the reddening of these infusions the salt is said to be acidulous, and the prefix *super*, or *bi*, is used to indicate this excess of acid. If, on the contrary, the acid appears to be less than is necessary for neutralising the alkalinity of the base, the salt is then said to be with excess of base, and the prefix *sub* is attached to its name. See **CHEMISTRY**, and the various acids and metals in the alphabetical arrangement.

SALT, ARSENICAL, NEUTRAL OF MACQUER. Superarseniate of potash.

SALT, BITTER, CATHARTIC. Sulphate of magnesia.

SALT, COMMON. Muriate of soda.

SALT, DIGESTIVE, OF SYLVIVS. Acetate of potash.

SALT, DIURETIC. Acetate of potash.

SALT, EPSOM. Sulphate of magnesia.

SALT, FEBRIFUGE, OF SYLVIVS. Muriate of potash.

SALT, FUSIBLE. Phosphate of ammonia.

SALT, FUSIBLE, OF URINE. Triple phosphate of soda and ammonia.

SALT, GLAUBER'S. Sulphate of soda.

SALT, MARINE. Muriate of soda.

SALT, MARINE, ARGILLACEOUS. Muriate of alumina.

SALT, MICROCOSMIC. Triple phosphate of soda and ammonia.

SALT, NITROUS, AMMONIACAL. Nitrate of ammonia.

SALT OF AMBER. Succinic acid.

SALT OF BENZOIN. Benzoic acid.

SALT OF CANAL. Sulphate of magnesia.

SALT OF COLCOTHAR. Sulphate of iron.

SALT OF EGRA. Sulphate of magnesia.

SALT OF LEMONS, ESSENTIAL. Superoxalate of potash.

SALT OF SATURN. Acetate of lead.

SALT OF SEDLITZ. Sulphate of magnesia.

SALT OF SEIGNETTE. Triple tartarate of potash and soda.

SALT OF SODA. Subcarbonate of soda.

SALT OF SORREL. Superoxalate of potash.

SALT OF TARTAR. Subcarbonate of potash.

SALT OF VITRIOL. Purified sulphate of zinc.

SALT, PERLATE. Phosphate of soda.

SALT, POLYCHREST, OF GLASER. Sulphate of potash.

SALT, SEDATIVE. Boracic acid.

SALT, SPIRIT OF. Muriatic acid was formerly called by this name, which it still retains in commerce.

SALT, SULPHUREOUS, OF STAHL. Sulphate of potash.

SALT, WONDERFUL PERLATE. Phosphate of soda.

SALT MINES. The salt mines of Wielicza, near Cracow. Poland, are very extraordinary

caverns. Wraxall describes them thus, in his *Memoirs of the Courts of Berlin, Dresden, Warsaw, Vienna*:—'After being let down,' says he, 'by a rope to the depth of 230 feet, our conductors led us through galleries which, for loftiness and breadth, seemed rather to resemble the avenues to some subterranean palace than passages cut in a mine. They were perfectly dry in every part, and terminated in two chapels, composed entirely of salt, hewn out of the solid mass. The images which adorn the altars, as well as the pillars and ornaments, were all of the same transparent materials; the points and spars of which, reflecting the rays of light from the lamps which the guides held in their hands, produced an effect equally novel and beautiful. Descending lower into the earth, by means of ladders, I found myself in an immense hall or cavern of salt, many hundred feet in height, length, and dimensions, the floor and sides of which were cut with exact regularity; 1000 persons might dine in it without inconvenience, and the eye in vain attempted to trace or define its limits. Nothing could be more sublime than this vast subterranean apartment, illuminated by flambeaux, which faintly discover its prodigious magnitude, and leave the imagination at liberty to enlarge it indefinitely. After remaining about two hours and a half under ground, I was drawn up again in three minutes with the greatest facility.'

SALTA, or **SAN MIGUEL DE SALTA**, a city and district of Tucuman, South America, was founded in 1582, under the name of San Clemente de la Nueva Sevilla, but was afterwards changed to its present site in the beautiful valley of Lerma. Its environs are very fertile, abounding in wheat, rye, and vines, with pastures for the cattle exported from this place to Peru; and its commerce consists in corn, meal, wine, cattle, salt meat, fat, hides, and other commodities, which are sent to all parts of Peru. It is computed that the number of mules fattened in the valley of Lerma amount, during the months of February and March, when the annual fair is held, to 60,000; and, besides these, there are generally 4000 horses and cows. The natives are subject to a species of leprosy, and nearly all the women, after they have attained the age of twenty, have the goitrous swelling in the throat, which disfigures them very much. It is fifty miles south of Jujui; and the river which washes the town turns east, and enters the Vermeijo.

SALTASH, a post and market town of Cornwall, seated on the side of a steep hill, on the banks of the Tamar; it has three streets, which, from the declivity, are washed clean by every shower of rain that falls. It possesses many privileges, and has jurisdiction on the Tamar, to the mouth of the port, claiming anchorage dues of all vessels that enter the harbour; and their coroner sits upon all bodies found drowned in the river. Saltash sent two members to parliament ever since the reign of Edward VI., who were elected by the mayor, recorder, &c., but was disfranchised in 1832. It has a market on Saturday, and sufficient depth of water in its harbour for large vessels. It lies six miles north-west of Plymouth, and 220 W. S. W. of London.

SALTA'TION, *n. s.* Lat. *saltatio*. The act of dancing; jumping: beat; palpitation.

The locusts being ordained for *saltation*, their hinder legs do far exceed the others.

Browne's Vulgar Errors.

If the great artery be hurt, you will discover it by its *saltation* and florid colour.

Wiseman's Surgery.

SALTCOATS, a sea-port town of Ayrshire, five miles north-west of Irvine. It has an excellent harbour, capable of admitting vessels of 220 tons. In 1700 it became the property of Sir Robert Cunningham, who began to work the valuable strata of coals in the neighbourhood, and built a harbour at Saltcoats to export them. He also erected several large pans for the manufacture of salt; which proved so successful that there is now made above 3000 bolls annually. Ship-building was also commenced and carried on with success. Notwithstanding the population and prosperity of this town it has neither magistrates, nor police, nor even a weekly market, but only one annual fair. A bailiff levies the dues of anchorage, and executes such regulations as are necessary for loading the vessels, sailing, &c., and the masters or owners of these vessels enter into a written obligation to observe these regulations. Saltcoats lies ten miles north-west of Ayr, and twenty-two south-west of Glasgow.

SALTER (John), an English officer, born in 1709, who by his merit rose from the ranks to be a major-general, and lieutenant-colonel, of the first regiment of foot. The duke of Cumberland, then in the guards, first noticed him, made him serjeant in his own company, and some time after gave him a commission, and patronised him publicly in presence of all the other officers. He died in 1787, aged seventy-eight.

SALTER (Samuel), D.D., a learned English divine, born at Norwich, and educated at the Charter House. He was admitted of Benet College; Cambridge, in 1730, where he obtained the degree of B.A. and a fellowship. He became soon after preceptor to the sons of Sir Philip Yorke, chief justice of the king's bench, who also made him his chaplain, a prebendary of Gloucester, and rector of Burton Coggles, in 1740, where he married Miss Secker, a relation of the bishop of Oxford. In 1750 he was made minister of Great Yarmouth; in 1751 archbishop Herring created him D.D.; in 1756 the lord chancellor made him rector of St. Bartholomew; and, in 1761, master of the Charter House. He published *Pindaric Odes*, in Greek, on the nuptials of the Princes of Wales and Orange; *Latin Verses on the Death of Queen Caroline*; and *Sermons, Tracts, &c.* He died May 2, 1778.

SALTFLEET, a sea-port town of Lincolnshire, with a market on Saturday; seven miles south of the mouth of the Humber, thirty-three north-east of Lincoln, and 158 north of London.

SALTIER, *n. s.* Fr. *saultiere*. A term of heraldry,

A *saltier* is in the form of a St. Andrew's cross, and by some is taken to be an engine to take wild beasts; in French it is called un sautoir: it is an honourable bearing.

Peacham.

SALTIER. See **HERALDRY**. This, says G

Leigh, in his *Accidence of Arms*, was anciently made of the height of a man, and driven full of pins, the use of which was to scale walls, &c. Upton derives this word from *saltus*, i. e. a forest. The French call this ordinary *sautoir*, from *sauter*, to leap; perhaps because it may have been used by soldiers to leap over walls of towns, which in former times were low; but some think it is borne in imitation of St. Andrew's cross.

SALTINBANCO, *n. s.* Lat. *saltare in banco*, to climb as a mountebank mounts a bank or bench. A quack or mountebank.

Saltinbancoes, quacksalvers, and charlatans, deceive them: were Æsop alive, the Piazza and Pont-neuf could not speak their fallacies.

Browne's Vulgar Errors.

He played the *saltinbanco's* part,
Transformed to a Frenchman by my art. *Hudibras.*

SALTPETRE. See GUNPOWDER and CHEMISTRY.

SALV'ABLE, *adj.* } Lat. *salvo*. Possible
SALVABIL'ITY, *n. s.* } to be saved; the noun
SAL'VAGE, } substantive correspond-
SALVA'TION, } ing: salvage is a legal
SALV'ATORY. } claim for assisting a
wrecked vessel: salvation, preservation from
eternal death: the act of saving.

As life and death, mercy and wrath, are matters of understanding or knowledge, all men's *salvation*, and all men's endless perdition, are things so opposite, that whosoever doth affirm the one must necessarily deny the other. *Hooker.*

Why do we Christians so fiercely argue against the *salvability* of each other, as if it were our wish that all should be damned, but those of our particular sect? *Decay of Piety.*

Our wild fancies about God's decrees have in event reprobated more than those decrees, and have bid fair to the damning of many whom those left *salvable*. *Id.*

Him the most High,
Wrapped in a balmy cloud with winged steeds,
Did, as thou saw'st, receive; to walk with God
High in *salvation*, and the climes of bliss,
Exempt from death. *Milton's Paradise Lost.*

I consider the admirable powers of sensation, phantasy, and memory, in what *salvatories* or repositories the species of things past are conserved.

Hale's Origin of Mankind.

SALVADOR (St), the city of San Salvador, the chief place of the province, and the second of Brasil, is built on a rocky eminence 600 feet high, on the east shore of All Saints' bay, a league within Cape Salvador, the east point of the entrance. The streets, though wide, are so steep as generally to preclude the use of carriages. The number of private houses is about 2000, mostly of stone, and massively built. The religious buildings are of course numerous and rich, particularly the cathedral, dedicated to San Salvador. The population has been estimated at 30,000 whites, and 70,000 Indians and negroes. The natural strength of the position is aided by strong fortifications, and the garrison usually consists of 5000 regular troops, besides a large white and black militia. Many ships of war and merchant vessels are built here. The buildings are chiefly of the seventeenth century, ill constructed, and, from the slightness of the materials, rapidly decaying, which diminishes the effect of many of them once sumptuous. The town is

divided into high and low, the latter consisting of streets filled with store houses on the shores of the bay, for the convenience of loading and unloading.

SALVADOR (St.), the name given by the Portuguese missionaries to the capital of the kingdom of Congo, in Western Africa. We have no account of it, except theirs, which is somewhat antiquated. They describe it as built at the top of a rocky and steep hill, in a plain about ten miles in circumference. The king's palace consists of a vast enclosure, about a league in circuit. The Portuguese had a quarter assigned to them, they tell us, which they built partly of stone and enclosed. They had erected a church, and invested one of their number with the title of bishop. The late British expedition, though they found no Portuguese on any part of the Zaire, were yet informed that a few still remained in this capital.

SALVADOR (St.), a district of Guatimala, in South America, which produces in great abundance sugar-cane and indigo.

SALVADOR (St.), the capital of the above province, situated on the banks of a river, at the distance of twelve miles from the Pacific. It has a little trade, and is the residence of a governor. Population about 5000 Indians, whites, and castes. 140 miles E. S. E. of Guatimala.

SALVADOR (St.), one of the Bahama Islands, discovered by Columbus in 1492. It is also known by the name of Cat Island, and, except at the south extremity, is very narrow. The population in 1797 amounted, including whites, to 657, and in 1803, the era of patented estates granted by the crown for cultivation, to 28,903.

SALVADORA, in botany, a genus of the monogynia order, and tetrandria class of plants: CAL. quadrifid: COR. none: BERRY monospermous; species one only, a Persian shrub; the seed covered with an antlus or loose coat.

SALVAGE, *adj.* Fr. *sausage*; Ital. *selvaggio*, from Lat. *silva*. Wild; rude; cruel. Now spoken and written SAVAGE, which see

May the Essexian plains
Prove as a desert, and none there make stay
But *savage* beasts, or men as wild as they. *Waller.*
A *savage* race inured to blood. *Dryden.*

SALVAGE MONEY, a reward allowed by the civil and statute law for the saving of ships or goods from the danger of the sea, pirates or enemies.—Where any ship is in danger of being stranded or driven on shore, justices of peace are to command the constables to assemble as many persons as are necessary to preserve it; and, on its being preserved by their means, the persons assisting therein shall, in thirty days after, be paid a reasonable reward for their salvage; or otherwise the ship or goods shall remain in the custody of the officers of the customs, as a security for the same. And in case the said officer of the customs, and the owners, &c., of the ship shall be unable to agree concerning the sum to be paid as salvage, they shall have power to nominate three neighbouring justices, who shall adjust the quantum of the gratuity to be paid to the several persons acting in the salvage of the ship or goods; and such adjustment shall be binding on all parties, and shall be re-

coverable in an action at law to be brought by the respective persons to whom the same shall be allotted by the justices. And, in case no person shall appear to make his claim to all or any of the goods saved, then the chief officer of the customs of the nearest port shall apply to three of the nearest justices, who shall put him or some responsible person in possession of such goods, such justices taking an account thereof in writing, to be signed by such officers of the customs; and if the goods shall not be legally claimed within twelve months, by the right owners, they shall be publicly sold, or, if perishable, forthwith sold, and the produce of the sale, after all charges deducted, with a fair account of the whole, shall be transmitted to the exchequer, there to remain for the benefit of the owner, when appearing; who, upon affidavit, or other proof of his right, to the satisfaction of one of the barons of the coif, shall, upon his order, receive the same out of the exchequer.

SALVAGES, a group of uninhabited islands, or rather rocks, off the coast of Africa, immediately north of the Canaries.

SALUBRIOUS, *adj.* } Latin *salubris*.
SALUBRITY, *n. s.* } Wholesome; healthful; promoting health; wholesomeness.

The warm limbeck draws
Salubrious waters from the nocent brood. *Philips.*

SALVE, *n. s. & v. a.* } Originally and properly *salv*, which having *salves* in the plural, the singular in time was borrowed from it. *Sax.* *fealg*; *Lat.* *salvus*, *salvo*. A glutinous matter applied to wounds and hurts; a plaster; help; remedy: to cure by medicaments; help by a salvo; salute (obsolete): a salver is a dish to save what is left: salvo, an exception, reservation, or excuse.

Some seek to *salve* their blotted name
 With others blot, 'till all do taste of shame. *Sidney.*

Our mother tongue, which truly of itself is both full enough for prose, and stately enough for verse, hath long time been counted most bare and barren of both; which default, when as some endeavoured to *salve* and cure, they patched up the holes with rags from other languages. *Spenser.*

That stranger knight in presence came,
 And goodly *salved* them; who mought again
 Him answered as courtesy became. *Faerie Queene.*

Many skilful leeches him abide,
 To *salve* his hurts. *Id.*

Ignorant I am not how this is *salved*: they do it but after the truth is made manifest. *Hooker.*

Let us hence, my sovereign to provide
 A *salve* for any sore that may betide.
Shakspeare. Henry VI.

My more particular,
 And that which most with you should *salve* my going,
 Is Fulvia's death. *Id. Antony and Cleopatra.*

The schoolmen were like the astronomers, who, to *salve* phenomena, framed to their conceit eccentricks and epicycles; so they, to *salve* the practice of the church, had devised a great number of strange positions. *Bacon.*

Sleep is pain's easiest *salve*, and doth fulfil
 All offices of death except to kill. *Domne.*

They admit many *salvos*, cautions, and reservations,
 so as they cross not the chief design. *King Charles.*

Go study *salve* and treacle: ply
 Your tenant's leg, or his sore eye. *Cleaveland.*

If they shall excommunicate me, hath the doctrine of meekness any *salve* for me then? *Hammond.*

The royal sword thus drawn has cured a wound,
 For which no other *salve* could have been found. *Waller.*

Though most were sorely wounded, none were slain;
 The surgeons soon despoiled them of their arms,
 And some with *salves* they cure. *Dryden.*

It will be hard if he cannot bring himself off at last with some *salvo* or distinction, and be his own confessor. *L'Estrange.*

He has printed them in such a portable volume that many of them may be ranged together on a single plate; and is of opinion that a *salver* of spectators would be as acceptable an entertainment for the ladies, as a *salver* of sweetmeats. *Addison.*

If others of a more serious turn join with us deliberately in their religious professions of loyalty, with any private *salvoes* or evasions, they would do well to consider those maxims in which all casuists are agreed. *Id.*

There must be another state to make up the inequalities of this, and *salve* all irregular appearances. *Atterbury.*

Between each act the trembling *salver* ring,
 From soup to sweet wine. *Pope.*

This conduct might give Horace the hint to say, that, when Homer was at a loss to bring any difficult matter to an issue, he laid his hero asleep, and this *salved* all difficulty. *Broome.*

SALVE REGINA, among the Romanists, the name of a Latin prayer, addressed to the Virgin. It was composed by Peter, bishop of Compostella. The custom of singing it at the close of the office was begun by order of St. Dominic, in the congregation of Dominicans at Bologna, about 1237. Gregory IX. first appointed it to be general. St. Bernard added the conclusion, *O dulcis! O pia, &c.*

SALVI (John), an eminent Italian historical painter, born near Urbino in 1504. He excelled chiefly in copying the works of the great masters, which he did with surprising accuracy. He died in 1590.

SALVIA, sage, a genus of the monogyuia order, and digynia class of plants; natural order forty-second, verticillatæ: cor. unequal; filaments placed crosswise on a pedicle. The most remarkable species are these:—

1. *S. auriculata*, common sage of virtue, is well known in the gardens and markets. The leaves are narrower than those of the common sort; they are hoary, and some of them are indented on their edges towards the base, which indentures have the appearance of ears. The spikes of flowers are longer than those of either the second or fourth species, and the whorls are generally naked, having no leaves between them. The flowers are smaller, and of a deeper blue than those of common red sage.

2. *S. officinalis*, the common large sage, which is cultivated in gardens, of which there are the following varieties:—1. The common green sage. 2. The wormwood sage. 3. The green sage with a variegated leaf. 4. The red sage. 5. The red sage with a variegated leaf. These are accidental

variations, and therefore are not enumerated as species. The common sage grows naturally in the southern parts of Europe, but it is here cultivated in gardens for use; that variety with red or blackish leaves is the most common in the British gardens; and the wormwood sage is in greater plenty here than the common green-leaved sage, which is not common in gardens.

3. *S. pomifera*, with spear-shaped oval entire leaves, grows naturally in Crete. It has a shrubby stalk, which rises four or five feet high, dividing into several branches. The flowers grow in spikes at the end of the branches; they are of a pale blue color, and have obtuse emplacements. The branches have often punctures made in them by insects, at which places grow large protuberances as big as apples, in the same manner as the galls upon an oak, and the rough balls on the briar.

4. *S. tomentosa*, generally called balsamic sage by the gardener. The stalks do not grow so upright as those of the common sage; they are very hairy, and divide into several branches, garnished with broad heart-shaped woolly leaves standing upon long foot-stalks; they are sawed on their edges, and their upper surfaces are rough; the leaves which are upon the flower-stalks are oblong and oval, standing upon shorter foot-stalks, and are very slightly dentated on their edges; they grow in whorled spikes toward the top of the branches; the whorls are pretty far distant, but few flowers in each; they are of a pale blue, about the size of those of the common sort. This sage is preferred to all the others for making sage tea. All the sorts of sage may be propagated by seeds, if they can be procured; but as some of them do not perfect their seeds in this country, and most of the sorts, especially the common kinds for use, are easily propagated by slips, it is not worth while to raise them from seeds.

SALVIANS, or **SALVIANUS**, an ancient father of the Christian church, who flourished about A. D. 440, and was well skilled in the sciences. Some say he was a Gaul; others a German. He resided long at Triers, and was called the Jeremiah of the fifth century. He acquired such reputation for his piety and learning that he was named the master of the bishops. He wrote *A Treatise on Providence*; another on the *Avarice of the Clergy*; and nine epistles, of which *Baluz* has given an excellent edition; that of *Conrad Rittershusius*, in 2 vols. 8vo., is also esteemed.

SALVIATI (Francis), an eminent painter, born in Florence, 1510. His manner of designing approached very near that of Raphael; and he worked in distemper, fresco, and oil. His naked figures are peculiarly graceful, as well as those in drapery. He died in 1563.

SALVIATI (Joseph), an eminent painter and mathematician, born in Venice in 1535. His original name was *Porta*. He was often employed in conjunction with *Paul Veronese* and *Tintoret*. His skill was equally great in designing and coloring; and he wrote several useful *Treatises on Mathematics*. He died in 1585. Both these painters took the name of *Salviani* from a cardinal, who patronised them greatly.

SALVINI (Antonio Marie), a learned Italian,

who became professor of Greek at Florence. He translated *Homer's Iliad and Odyssey*; with the poems of *Hesiod*, *Theocritus*, *Anacreon*, and many of the minor Greek poets, into Italian verse. He was a member of the academy de la *Crusca*, and assisted in the compilation of their *Dictionary*, in 6 vols. He died in Florence in 1729.

SALUS, in the Roman mythology, the goddess of health, and the daughter of *Aesculapius*, called *Hygiea* by the Greeks. We find her name on many medals of the Roman emperors, with different inscriptions; as, *SALUS PUBLICA*, *SALUS REIPUBLICÆ*, *SALUS AUGUSTI*, &c.

SALUSTE (William de), *Du Bartas*, a French poet, who lived in the sixteenth century. He was employed by *Henry IV.* of France in England, Denmark, and Scotland; and commanded a troop of horse in Gascony, under *marechal de Martignan*. He was a Calvinist, and died in 1590, aged forty-six. He wrote a great number of poems; the most famous are, 1. *The Week*, or *The Creation of the World*, in seven books. 2. *The Poem of Judith*: and, 3. *The Battle of Ivry*, gained by *Henry IV.* in 1590. He wrote in a bombastic style.

SALUTARY, *adj.* } Fr. *salutaire*; Lat. **SALUTARINESS**, *n. s.* } *salutaris*. Wholesome; healthful; safe; contributing to health or safety: the noun substantive corresponding.

The gardens, yards, and avenues are dry and clean; and so more *salutary* as more elegant. *Ray.*

It was want of faith in our Saviour's countrymen, which hindered him from shedding among them the *salutary* emanations of his divine virtue; and he did not many mighty works there, because of their unbelief. *Bentley.*

SALUTATION, *n. s.* } Fr. *salutation*;
SALUTE, *v. a. & n. s.* } Lat. *salutatio*. The
SALUTER. } act or style of saluting; greeting: to greet; kiss: a kiss: one who salutes.

The early village cock

Hath twice done *salutation* to the morn.

Shakspeare.

One hour hence

Shall *salute* your grace of York as mother. *Id.*

Would I had no being,

If this *salute* my blood a jot: it faints me,

To think what follows. *Id. Henry VIII.*

In all public meetings, or private addresses, use those forms of *salutation*, reverence, and decency, used amongst the most sober persons.

Taylor's Rule of Holy Living.

On her the angel hail

Bestowed, the holy *salutation* used

To blest Mary.

Milton.

O, what avails me now that honour high

To have conceived of God, or that *salute*,
Hail highly favoured, among women blest! *Id.*

The custom of praying for those that sneeze is more ancient than these opinions hereof; so that not any one disease has been the occasion of this *salute* and deprecation. *Browne.*

There cold *salutes*, but here a lover's kiss.

Roscommon.

Court and state he wisely shuns;

Nor bribed to servile *salutations* runs.

Dryden.

Continual *salutes* and addresses entertaining him all the way, kept him from saving so great a life, but

with one glance of his eye upon the paper, till he came to the fatal place where he was stabbed.

South.

I shall not trouble my reader with the first *salutes* of our three friends.

Addison.

SALUTATION, VARIOUS MODES OF. Modes of salutation have, in different countries, very different characters, and it is not uninteresting to examine their shades. Many display a refinement of delicacy; others are remarkable for their simplicity, or sensibility. The islanders, near the Philippines, take the hand or foot of him they salute, and with it they gently rub their face. The Laplanders apply their nose strongly against that of the persons they salute. Dampier says that, at New Guinea, they are satisfied in placing on their heads the leaves of trees, which have ever passed for symbols of friendship and peace. Other salutations are very incommodious; it requires great practice to enable a man to be polite in an island in the Straits of the Sound. Houtman tells us, 'They raised his left foot, which they passed gently over the right leg, and thence over his face.' The inhabitants of the Philippines bend their body very low, in placing their hands on their cheeks, and raising at the same time one foot in the air, with their knee bent. An Ethiopian takes the robe of another, and ties it about his own waist, so that he leaves his friend half naked. Sometimes men place themselves naked before the person whom they salute, to show their humility, and that they are unworthy of a covering in his presence. This was practised before Sir Joseph Banks, when he received the visit of two Otaheitan ladies. Sometimes they only undress partially. The Japanese only take off a slipper; the people of Arracan their sandals in the street, and their stockings in the house. The grandees of Spain claim the right of appearing covered before the king to show that they are not so much subjected to him as the rest of the nation. When two negro monarchs visit they embrace in snapping three times the middle finger. When the inhabitants of Carmona, says Athenæus, would show a peculiar mark of esteem, they opened a vein, and presented for the beverage of their friend, the blood as it issued. The Franks tore hair from their head, and presented it to the person whom they saluted. The slave cut his hair, and offered it to his master. The Chinese are singularly particular in their personal civilities; they even calculate the number of their reverences. The men move their hands in an affectionate manner, while they are joined together on their breast, and bow their head a little. If two persons meet after a long separation, they both fall on their knees and bend their faces to the earth, and this they repeat two or three times. If a Chinese is asked how he finds himself in health? he answers, Very well: thanks to your abundant felicity. If they would tell a man that he looks well, they say, Prosperity is painted on your face; or, Your air announces your happiness. All these and many other answers are prescribed by the Chinese academy of compliments. There are determined the number of bows, the expressions to be employed, the genuflections, and the inclinations to be made to the right or left hand,

the salutations of the master before the chair where the stranger is to be seated; for he salutes it most profoundly, and wipes the dust away with the skirts of his robe. The lower class of people are equally nice in these punctilios; and ambassadors pass forty days in practising them before they can appear at court. The marks of honor are frequently arbitrary; to be seated, with us, is a mark of repose and familiarity; to stand up, that of respect. There are countries, however, in which princes will only be addressed by persons who are seated, and it is considered as a favor to be permitted to stand in their presence. This custom prevails in despotic countries: a despot cannot suffer without disgust the elevated figure of his subjects; he is pleased to bend their bodies with their genius: his presence must lay those who behold him prostrate on the earth: he desires no eagerness, no attention; he would only inspire terror.

SALUTE, in military matters, a discharge of artillery or small arms, or both, in honor of some person of extraordinary quality. The colors likewise salute royal persons, and generals commanding in chief; which is done by lowering the point to the ground. In the field, when a regiment is to be reviewed by the king or his general, the drums beat a march as he passes along the line, and the officers salute one after another, bowing their half-pikes or swords to the ground; then recover and take off their hats. The ensigns salute all together by lowering their colors. In the navy this ceremony is variously performed, according to the circumstances, rank, or situation of the parties. It consists in firing a certain number of cannon, or volleys of small arms; in striking the colors or topsails; or in one or more general shouts of the whole ship's crew, mounted on masts or rigging for that purpose. The principal regulations with regard to salutes in the royal navy are as follows:—When a flag-officer salutes the admiral and commander in chief of the fleet he is to give him fifteen guns; but when captains salute him they are to give him seventeen guns. The admiral and commander-in-chief of the fleet is to return two guns less to flag-officers, and four less to captains. Flag-officers saluting their superior or senior officer are to give him thirteen guns. Flag-officers are to return an equal number of guns to flag-officers bearing their flags on the same mast, and two guns less to the rest, as also to the captains. When a captain salutes an admiral of the white or blue he is to give him fifteen guns; but to vice or rear-admirals thirteen guns. When a flag-officer is saluted by two or more of his majesty's ships he is not to return the salute till all have finished, and then to do it with such a reasonable number of guns as he shall judge proper. In case of the meeting of two squadrons, the two chiefs only are to exchange salutes. And, if single ships meet a squadron consisting of more than one flag, the principal flag only is to be saluted. No salutes shall be repeated by the same ships unless there has been a separation of six months at least. None of his majesty's ships of war, commanded only by captains, shall give or receive salutes from one another, in whatsoever part of the world they meet. A flag-officer com-

manding in chief shall be saluted, upon his first hoisting his flag, by all the ships present, with such a number of guns as is allowed by the first, third, or fifth articles. When any of his majesty's ships meet with any ship or ships belonging to any foreign prince or state, within his majesty's seas (which extend to Cape Finisterre), it is expected that the said foreign ships do strike their topsail, and take in their flag, in acknowledgment of his majesty's sovereignty in those seas: and if any shall refuse, or offer to resist, it is enjoined to all flag-officers and commanders to use their utmost endeavours to compel them thereto, and not suffer any dishonor to be done to his majesty. And if any of his majesty's subjects shall so much forget their duty as to omit striking their topsail in passing by his majesty's ships, the name of the ship and master, and whence and whither bound, together with affidavits of the fact, are to be sent up to the secretary of the admiralty, in order to their being proceeded against in the admiralty court. And it is to be observed that, in his majesty's seas, his majesty's ships are in nowise to strike to any; and that in other parts no ship of his majesty is to strike her flag or topsail to any foreigner, unless such foreign ship shall have first struck, or at the same time struck, her flag or topsail to his majesty's ship. The flag-officers and commanders of his majesty's ships are to be careful to maintain his majesty's honor upon all occasions, giving protection to his subjects, and endeavouring, what in them lies, to secure and encourage them in their lawful commerce; and they are not to injure, in any manner, the subjects of his majesty's friends and allies. If a foreign admiral meets with any of his majesty's ships, and salutes them, he shall receive gun for gun. If he be a vice-admiral, the admiral shall answer with two guns less; if a rear-admiral, the admiral and vice-admiral shall return two less. But if the ship be commanded by a captain only, the flag-officer shall give two guns less, and captains an equal number. When any of his majesty's ships come to an anchor in any foreign port or road, within cannon-shot of its forts, the captain may salute the place with such a number of guns as has been customary, upon good assurance of having the like number returned, but not otherwise. But if the ship bear a flag, the flag-officer shall first carefully inform himself how flags of the like rank, belonging to other crowned heads, have given or returned salutes, and to insist upon the same terms of respect. It is allowed to the commanders of his majesty's ships in foreign parts to salute the persons of any admirals, commanders-in-chief, or captains of ships of war of foreign nations, and foreign noblemen, or strangers of rank, coming on board to visit the ship; and the number of guns is left to the commander, as shall be suitable to the occasion and quality of the person visiting; but he is nevertheless to remain accountable for any excesses in the abuse of this liberty. If the ship visited be in company with other ships of war, the captain is not to make use of the civilities allowed in the preceding articles but with leave and consent of the commander-in-chief or the senior captain. Merchant ships, whether foreign-

ers or belonging to his majesty's subjects, saluting the admiral of the fleet, shall be answered by six guns less; when they salute any other flag-ships, they shall be answered by four guns less; and, if they salute men of war commanded by captains, they shall be answered by two guns less. If several merchant ships salute in company, no return is to be made till all have finished, and then by such a number of guns as shall be thought proper; but, though the merchant-ships should answer, there shall be no second return. None of his majesty's ships of war shall salute any of his majesty's forts or castles in Great Britain or Ireland on any pretence whatsoever.

SALUZZO, a district of Piedmont, forming part of the continental states of the king of Sardinia, and bounded by the county of Nice, the valley of Lucerne, and the frontier of France, extending along the province of Dauphiny. It has a superficial extent of 750 square miles, mountainous and rugged; but, from warmth of climate, its soil is in many parts fertile, producing corn, hemp, fruit, wine, and silk. It is commonly called the marquise of Saluzzo. Population 126,000.

SALUZZO, a town of the Sardinian states, in the north-west of Italy, the capital of the above district, situated at the foot of the Alps, not far from the source of the Po. Including its suburbs, it has above 10,000 inhabitants. It is tolerably well built, and contains a cathedral and several churches worth notice. The silk manufactures are extensive. It is the see of a bishop, and stands on an eminence. Twenty-eight miles south of Turin.

SALZBURG, a province and city in the west of Austria, lying between Styria, Tyrol, and Bavaria. Its area, since the cession of Berchtesgaden to Bavaria, is about 2800 square miles, and its population 142,000. It consists partly of a great valley, with the Salza flowing along the middle, and partly of a track of mountains and defiles. The ground is highest in the south, where it forms part of the Noric Alps. The climate of this mountainous region is much more severe than might be expected in 46° 55' and 47° 58' N. lat. Even in the neighbourhood of Salzburg, the hills, which are here much inferior to those of the south, are covered with snow before October. In the south the winter lasts, with little intermission, from the beginning of November to April, and showers and frosts follow till about the end of June. The Sirocco, so well known in the Mediterranean, then passes along these valleys from Italy, and, though much cooled in this mountain track, has not even here lost its power, though it seldom lasts above a day.

SAMANAP, a large town on the south-east coast of the island of Madura. It is situated on a fine bay, which, though rather shallow, will admit of large brigs or prows, lying close up to the town. This place carries on an extensive commerce; and the country abounds in rice, and teak timber. Here the Dutch used to build their largest ships for the country trade.

SAMANEANS, an ancient philosophical sect of India, mentioned by Greek writers, who devoted themselves entirely to the study of divine wisdom, and gave up all private property, con-

mitting the care of their families to the State. Their Society was supported at the public expense. They were a kind of magi, and have been confounded by some with the Brahmins. They proceeded from Ariana, a province of Persia, and the neighbouring countries, spread themselves in India, and taught new doctrines. The Brahmins, before their arrival, were in the highest period of their glory, were the only oracles of India, and their principal residence was on the banks of the Ganges, and in the adjacent mountains; while the Samaneans were settled towards the Indus. Others say that the Brahmins acquired all their knowledge from the Samaneans. The most celebrated and ancient of the Samanean doctors was Boutta, or Buddah, who was born A. A. C. 683. His scholars paid him divine honors; and his doctrine, which consisted chiefly in the transmigration of souls, and in the reverence of cows, was adopted not only in India, but also in Japan, China, Siam, and Tartary. It was propagated, according to M. de Saint Croix, in Thibet, in the eighth century, and succeeded there the ancient religion of Zamolxis. The Samaneans, or Buddhists, were entirely destroyed in India by the jealous rage of the Brahmins, whose absurd practices and fables they affected to treat with contempt; but several of their books are still preserved and respected on the coasts of Malabar. Several of the Brahmin orders have also adopted their manner of living, and openly profess the greatest part of their doctrines.

SAMAR, one of the Philippines, situated south-east from the large island of Luzon, from which it is separated by a strait about five leagues in breadth. In length it may be estimated at 140 miles, by sixty the average breadth. In this island the soil is extremely fertile, easily cultivated, and rewards the industry of the laborer with at least forty-fold.

SAMARA, in botany, a genus of the monogynia order, and tetrandria class of plants: CAL. quadripartite: COR. tetrapetalous: stamina immersed in the base of the petal: stigma funnel-shaped. Species four, natives of the East and West Indies, and of the Cape.

SAMARCAND, a great city of Asia, the former capital of Independent Tartary, and, under Timur, of an empire which extended over a great part of this continent. Clavijo, a Spanish ambassador, who visited it about A. D. 1400, estimated the population of the city and suburbs at 150,000. A considerable number, for want of habitations, were obliged to make their habitations in the surrounding rocks. The country, for two leagues round, was entirely covered with large villages, gardens, and country houses, the residence of Tartar chiefs; so that to a stranger approaching, a vast forest seemed to enclose it. Its inland commerce was most extensive. The pomp of Timur's court, and of his numerous palaces, is said to have surpassed description. Our information with regard to the modern state of this once celebrated capital, is very imperfect.

SAMARIA, in ancient geography, one of the three larger districts on this side of the Jordan, situated in the middle between Galilee on the north, and Judea on the south, beginning at the

village Ginæa, in the Campus Magnus, and ending at the toparchy called Acrobotena. (Josephus). Its soil differed in nothing from that of Judea; both equally hilly and champaign, both equally fertile in corn and fruit (id.): called the kingdom of Samaria in Ephraim (Bible); comprising the ten tribes, and consequently all the country to the north of Judea, and east and west of Jordan. Both the kingdom and city are now called Naplous.

SAMARIA, the capital city of the kingdom of Samaria, or of the ten tribes. It was built by Omri king of Israel, who began to reign A. M. 3079, and died in 3086. 1 Kings xvi. 24. He bought the hill Samaria of Shemer for two talents of silver, or for the sum of £684 : 7 : 6. It took the name of Samaria from Shemer the owner of the hill; though some think there were already some beginnings of a city, because, before the reign of Omri, there is mention made of Samaria (1 Kings xiii. 32) in A. M. 3030. But others take this for a prolepsis, or an anticipation, in the discourse of the man of God, who speaks of Samaria under the reign of Jeroboam. However this be, it is certain that Samaria was no considerable place, and did not become the capital of the kingdom of Israel till after the reign of Omri. Before him, the kings of Israel dwelt at Shechem, or at Tirzah. Samaria was situated upon an agreeable and fruitful hill, and in an advantageous situation, and was twelve miles from Dothaim, twelve from Merom, and four from Atharoth. Josephus says it was a day's journey from Jerusalem. Besides, though it was built upon an eminence, yet it must have had water in abundance; since we find medals struck in this city, wherein is represented the goddess Astarte treading a river under foot. And Josephus says that, when it was taken by John Hyrcanus, he caused the brook to flow over its ruins, to obliterate all marks of it. The kings of Samaria omitted nothing to make the city the strongest, the finest, and the richest, that was possible. Ahab built there a palace of ivory (1 Kings xxii. 39), that is there were many ornaments of ivory in it. Amos describes Samaria under Jeroboam II., as a city sunk into all excesses of luxury and effeminacy. (Amos iii. 15, and iv. 1, 2). Benhadad king of Syria built public places or streets in Samaria (1 Kings xx. 34), probably for traffic, where his people dwelt to promote trade. His son Benhadad besieged it under Ahab (1 Kings xx. 1, 2, 3, &c.) A. M. 3203. In 3204 Benhadad brought an army into the field, but it was again cut in pieces. Some years after this Benhadad came a third time, lay down before Samaria, and reduced it to such necessities by famine that a mother was there forced to eat her own child; but the city was relieved by a sensible exertion of the protection of God. Lastly, it was besieged by Shalmaneser king of Assyria, in the ninth year of Hoshea king of Israel (2 Kings xvii. 6, 7, &c.), and fourth of Hezekiah king of Judah. It was taken three years after, in A. M. 3283. The prophet Hosea speaks of the cruelties exercised by Shalmaneser against the besieged (Hosea x. 4—8); and Micah says that this city was reduced to a heap of stones. (Mic. i. 6). The

Cuthites, who were sent by Esarhaddon to inhabit the country of Samaria, did not think it worth their while to repair the ruins of this city, they dwelt at Shechem, which they made their capital. They were still upon this footing when Alexander the Great came into Phœnicia and Judea. However the Cuthites had rebuilt some of the houses of Samaria, from the time of the return from the captivity, since Ezra then speaks of the inhabitants of Samaria (Ezra iv. 17; Nehem. iv. 2); and the Samaritans, jealous of the favors that Alexander the Great had conferred on the Jews, revolted from him while he was in Egypt, and burnt Andromachus alive, whom Alexander had left governor of Syria. Alexander marched against them, took Samaria, and put in Macedonians to inhabit it; giving the country around it to the Jews; and, to encourage them to cultivate it, he granted them an exemption from tribute. The kings of Egypt and Syria, who succeeded Alexander, deprived them of the property of this country. But Alexander Balas king of Syria restored to Jonathan Maccabæus the cities of Lydda, Ephrem, and Ramatha, which he cut off from the country of Samaria. (1 Mac. x. 30, 38, and xi. 28, 34). Lastly, the Jews re-entered into the full possession of this whole country under John Hyrcanus, the Asmonæan, who took Samaria, and ruined it as above-mentioned. It continued in this condition to A. M. 3937, when Aulus Gabinus was the proconsul of Syria, and gave it the name of Gabiniana. But it was still inconsiderable, till Herod the Great restored it to its ancient lustre, and named it Sebaste, the Greek for Augusta, in honor of Augustus, who had given him the property of it. The sacred authors of the New Testament mention but little of Samaria; and when they do, it is rather of the country about it than of the city. (See Luke xvii. 11; John iv. 4, 5). It was there our Lord had the conversation with a Samaritan woman of Sychar. After the death of St. Stephen (Acts viii. 1, 2, 3), when the disciples were dispersed through Judea and Samaria, St. Philip the deacon withdrew into the city of Samaria, where he made several converts. When the apostles heard that this city had received the word of God, they sent Peter and John thither, to communicate the Holy Ghost to such as had been baptised. There they found Simon Magus. See SIMON. Samaria is never called Sebaste in the New Testament, though strangers hardly knew it but by this name. St. Jerome says that it was thought Obadiah was buried at Samaria. They also showed there the tombs of Elisha and of St. John the baptist. There are found many ancient medals that were struck at Sebaste and Samaria; and some bishops of this city have subscribed to the ancient councils.

SAMARITANS, the people of the city and province of Samaria. In this sense, it should seem that we might give the name of Samaritans to the Israelites of the ten tribes, who lived in the city and territory of Samaria. However, the sacred authors give the name of Samaritans only to those strangers whom the kings of Assyria sent from beyond the Euphrates to inhabit the kingdom of Samaria, when they carried captive the Israelites that were there before. Thus we

may fix the epoch of the Samaritans at the taking of Samaria by Salmaneser, in A. M. 3283. This prince carried away the Israelites, and assigned them dwellings beyond the Euphrates, and in Assyria (2 Kings xvii. 24). He sent other inhabitants in their stead, of whom the most considerable were the Cuthites, a people descended from Cush, and who are probably of the number of those whom the ancients knew by the name of Scythians. See CURU. His successor Esarhaddon, being informed that the people which had been sent to Samaria were infested by lions (3 Kings xvii. 25), imputed it to their ignorance of the manner of worshipping the god of the country; and sent a priest of the god of Israel that he might teach them the religion of the Hebrews. But they blended this religion with that which they professed before; so they continued to worship their idols, in conjunction with the God of Israel, not perceiving how incompatible these two religions were. It is not known how long they continued in this state; but, at the return from the captivity of Babylon, they had entirely quitted the worship of their idols; and, when they asked permission of the Israelites that they might labor with them at the rebuilding the temple of Jerusalem, they affirmed, that from the time that Esarhaddon had brought them into this country they had always worshipped the Lord. (Ezra iv. 1, 2, 3). And indeed, after the return from the captivity, the scripture nowhere reproaches them with idolatrous worship, though it does not dissemble either their jealousy against the Jews, or the ill offices they had done them at the court of Persia, by their slanders and calumnies, or the stratagems they contrived to hinder the repairing of the walls of Jerusalem. (Nehem. ii. 10, 19; iv. 2, &c.; vi. 1, 2, &c.). It does not appear that there was any temple in Samaria, in common to all those people who came thither from beyond the Euphrates, before the coming of Alexander the Great into Judea. Till then every one was left to his own discretion, and worshipped the Lord where he thought fit. But they soon comprehended, from the books of Moses which they had in their hands, and from the example of the Jews, that God was to be worshipped in that place only which he had chosen. As they could not go to the temple of Jerusalem, which the Jews would not permit, they resolved to build a temple of their own upon Mount Gerizim, near Shechem, their capital. Therefore Sanballat, the governor of the Samaritans, applied to Alexander, as Josephus says, but more probably to Darius Nottus, king of Persia, as Dr. Prideaux supposes (see SANBALLAT); and told him he had a son-in-law, called Manasses, son to Jaddus the high priest of the Jews, who had retired to Samaria with a great number of other persons of his own nation: that he desired to build a temple in this province, where he might exercise the high-priesthood; that this undertaking would be to the advantage of the king's affairs, because, in building a temple in the province of Samaria, the nation of the Jews would be divided, who were a turbulent and seditious people, and by such a division would be made weaker, and less in a condition to undertake new enterprises. The king

readily consented to what Sanballat desired, and the Samaritans presently began their building of the temple of Gerizim, which from that time they have always frequented, and still frequent as the place where the Lord intended to receive the adoration of his people. It is of this mountain, and of this temple, that the Samaritan woman of Sychar spoke to our Saviour. (John iv. 20). See GERIZIM. Josephus adds that the Samaritans did not long continue subject to Alexander; they revolted the very next year, and he drove them out of Samaria, put Macedonians in their room, and gave the province of Samaria to the Jews. This preference that Alexander gave to the Jews contributed not a little to increase that hatred that had already obtained between these two people. When an Israelite had deserved punishment, for the violation of some important point of the law, he took refuge in Samaria. When the Jews were in a prosperous condition, and affairs were favorable to them, the Samaritans called themselves Hebrews, and pretended to be of the race of Abraham. But, when the Jews fell under persecution, the Samaritans disowned them, and acknowledged themselves to be Phœnicians originally. This was their practice in the time of Antiochus Epiphanes. The Samaritans, having received the Pentateuch from the priest that was sent by Esarhaddon, have preserved it to this day, in the same language and character it was then, that is, in the old Hebrew or Phœnician character which we now call the Samaritan, to distinguish it from the modern Hebrew character, at present used in the books of the Jews. These last, after their captivity, changed their old characters, and took up those of the Chaldee, which they had been used to at Babylon, and which they continue to use. It is wrong, says F. Calmet, to give this the name of the Hebrew character, for that can be said properly only of the Samaritan text. The critics have taken notice of some variations between the Pentateuch of the Jews and that of the Samaritans; but these chiefly regard the word Gerizim, which the Samaritans purposely introduced to favor their pretensions, that mount Gerizim was the place in which the Lord was to be adored. The religion of this people was at first the Pagan. Every one worshipped the deity they had been used to (2 Kings xvii. 29.—31). The Babylonians worshipped Succoth-benoth; the Cushites, Nergal; the Hamathites, Ashima: the Avites, Nibhaz and Tartak; the Sepharvites, Adrammelech and Anammelech. Afterwards, the Samaritans added that of the Lord, the God of Israel (ibid. 32, 33). But they gave a proof of their little regard to the worship of the true God, when, under Antiochus Epiphanes, they consecrated their temple at Gerizim to Jupiter Argivus. In the time of Alexander the Great, they celebrated the sabbatical year, and consequently the year of jubilee also. Under the kings of Syria they followed the epoch of the Greeks, or that of the Seleucidæ. After Herod had re-established Samaria, and given it the name of Sebaste, the inhabitants, in their medals, and all public acts, took the date of this new establishment. But the old inhabitants of Samaria, of whom the greater part were Pagans or Jews,

were no rule to the other Samaritans, who probably reckoned their years by the reigns of the emperors they were subject to, till they fell under the Mahometans, under whom they live at this day; and they reckon their year by the Hegira, or according to the era of the Ishmaelites. Such as desire to be further acquainted with the history of the ancient Samaritans, we refer to the works of Josephus. As to their religion, it is said that they receive only the Pentateuch, and reject all the other books of scripture, chiefly the prophets, who have expressly declared the coming of the Messiah. They have also been accused of believing God to be corporeal, of denying the Holy Ghost, and the resurrection of the dead. Jesus Christ says (John iv. 22) they worship they know not what. The Samaritan woman is a sufficient testimony that the Samaritans expected a Messiah, who they hoped would clear up all their doubts (John iv. 25). Several of the inhabitants of Shechem believed at the preaching of Jesus Christ, and several of Samaria believed at that of St. Philip. The modern Samaritans are not numerous. Joseph Scaliger, being curious to know their usages, wrote to the Samaritans of Egypt, and to the high-priest of the sect who resided at Neapolis in Syria. They returned two answers to Scaliger, dated in the year of the Hegira 998. These were preserved in the French king's library, and were translated into Latin by Morin, and printed in England in the collection of that father's letters, in 1692, under the title of *Antiquitates Ecclesiæ Orientalis*. By these it appears that they believe in God, in Moses, the holy law, the mountain of Gerizim, the house of God, the day of vengeance and of peace; that they value themselves upon observing the law of Moses in many points more rigidly than the Jews themselves. They keep the sabbath with the utmost strictness, without stirring from the place they are in, but only to the synagogue. They go not out of the city, and abstain from their wives on that day. They never delay circumcision beyond the eighth day. They still sacrifice in the temple on mount Gerizim, and give to the priest what is enjoined by the law. They do not marry their nieces as the Jews do, nor do they allow a plurality of wives. Their hatred for the Jews is testified by Josephus, as well as in the New Testament. (See John iv. 9). The Jewish historian says that one passover night, when they opened the gates of the temple, some Samaritans had scattered the bones of dead men there, to insult the Jews, and to interrupt their devotions. And the Samaritan woman of Sychar was surprised that Jesus talked with her, and asked drink of her, being a Samaritan. When our Saviour sent his apostles to preach in Judea, he forbade them to enter into the Samaritan cities (Matt. x. 5); because he looked upon them as schismatics. One day, when he sent his disciples to provide him a lodging in one of the cities of the Samaritans, they would not entertain him, because they perceived he was going to Jerusalem (Luke ix. 52, 53). And, when the Jews were provoked at the reproaches of Jesus Christ, they told him he was a Samaritan (John viii. 48). Josephus relates that some Samaritans having killed several

Jews, as they were going to the feast at Jerusalem, this occasioned a kind of war between them. The Samaritans continued their fealty to the Romans, when the Jews revolted; yet they did not escape from being involved in some of the calamities of their neighbours. There were, in very modern times, Samaritans at Shechem, otherwise called Naplouse. They had priests of the family of Aaron, as they stated: a high-priest, who resided at Shechem, or at Gerizim, who offered sacrifices there, and who declared the feast of the passover, and all the other feasts, to all the Samaritans. Some of them are said still to be found at Gaza, some at Damascus, and some at Grand Cairo.

SAMBALLAS, a name given to a cluster of islands near the coast of America, in the Spanish Main, of which three groupes are called Cavasas, Mulatas, and Sagua. These islands are scattered at very unequal distances, some only one, some two, some three, and some four miles from the shore and from one another, extending a very considerable distance along the northern shore of the isthmus of Darien.

SAMBUCUS (John), a learned physician, born at Ternau, in Hungary, in 1531. After studying in several universities, his abilities recommended him to the emperors, Maximilian II. and Rodolph II., who successively appointed him counsellor and historiographer. He wrote the Lives of the Roman Emperors, and other works. He died at Vienna, in 1584.

SAMBUCUS, in botany, elder, a genus of the trigynia order, and pentandria class of plants; natural order forty-third, dumosæ: CAL. quinquepartite: COR. quinquedid; berry trispermous. The most remarkable species are these:

1. *S. Canadensis*, the Canada shrubby elder, rises with a shrubby stem, branching eight or ten feet high, having reddish shoots, somewhat bipinnated leaves, often ternate below; the other composed of five, seven, or nine oval lobes; and towards the ends of the branches cymose quinquepartite umbels of flowers, succeeded by blackish-red berries.

2. *S. nigra*, the common black elder tree, rises with a tree stem, branching numerously into a large spreading head, twenty or thirty feet high; pinnated leaves, of two or three pairs of oval lobes and one odd one; and large five-parted umbels of white flowers towards the end of the branches, succeeded by bunches of black and other different colored berries, in the varieties; which are, common black-berried elder-tree, white-berried elder, green-berried elder, lacinated, or parsley-leaved elder, having the folioles much lacinated, so as to resemble parsley-leaves, gold-striped leaved elder, silver-striped elder, and silver-dusted elder.

3. *S. racemosa*, racemose, red-berried elder, rises with a tree-like stem, branching ten or twelve feet high, having reddish-brown branches and buds; pinnated leaves of six or seven oval deeply-sawed lobes, and compound, oval, racemous clusters of whitish-green flower, succeeded by oval clusters of red berries. It is common to the mountainous parts of the south of Europe, and is retained in our gardens as a flowering shrub, naving a peculiar singularity in

its oval-clustered flowers and berries. All the sorts of elder are of the deciduous kind, very hardy, and grow freely any where; are generally free shooters, but particularly the common elder and its varieties, which make remarkably strong jointed shoots, of several feet in length, in one season; and they flower mostly in summer, except the racemose elder, which generally begins flowering in April; and the branches being large, spreading, and very abundant, are exceedingly conspicuous; but they emit a most disagreeable odor. The flowers are succeeded, in the most of the sorts, by large bunches of ripe berries in autumn, which, though very unpalatable to eat, are in high estimation for making that well known cordial called elder wine, particularly the common black-berried elder. The merit of the elder in gardening may be both for use and ornament, especially in large grounds.

SAME, *adj.* } Sax. *ram*; Goth. and Teut. SAMENESS, *n. s.* } *same*. Identical; not different; not another; being of the like sort or degree: the noun substantive corresponding.

Miso, as spitefully as her rotten voice could utter it, set forth the *same* sins of Amphialus. *Sidney.*

Difference of persuasion in matters of religion may easily fall out, where there is the *sameness* of duty, allegiance, and subjection. *King Charles.*

Do but think how well the *same* he spends,
Who 's spends his blood his country to relieve.

Daniel.

The tenor of man's woe

Holds on the *same*.

Milton.

Th' etherial vigour is in all the *same*,

And ev'ry soul is filled with equal flame. *Dryden.*

The merchant does not keep money by him; but, if you consider what money must be lodged in the banker's hands, the case will be much the *same*.

Locke.

If itself had been coloured, it would have transmitted all visible objects tinctured with the *same* colour; as we see whatever is beheld through a coloured glass appears of the *same* colour with the glass. *Ray on the Creation.*

The *same* plant produceth as great a variety of juices as there is in the *same* animal. *Arbutnot.*

If all courts have a *sameness* in them, 'things may be as they were in my time, when all employments went to parliamentmen's friends. *Swift.*

SAMIEL, the Arabian name of a hot wind peculiar to the desert of Arabia. It blows over the desert in July and August from the north-west quarter. Some years it does not blow at all, and in others it appears six, eight, or ten times, but seldom continues more than a few minutes at a time. It often passes with the apparent quickness of lightning. The Arabs and Persians have warning of its approach by a thick haze arising out of the horizon: when they instantly throw themselves with their faces to the ground, and continue in that position till the wind has passed, which happens almost instantaneously; but if they are not brisk enough to take this precaution, and they get the full force of the wind, it generally produces death. The Arabs say that this wind always leaves behind it a very strong sulphureous smell, and that the air at these times is quite clear, except about the horizon in the north-west, which gives warning of its approach. See ARABIA

SAM'LET, *n. s.* Fr. *salmonet*, or *salmonlet*.
A little salmon.

A salmon, after he is got into the sea, becomes from a *samlet*, not so big as a gudgeon, to be a salmon, in as short a time as gosling becomes a goose.
Walton's Angler.

SAMNITES, an ancient nation of Italy, who inhabited the country situated between Picenum, Campania, Apulia, and Latium. They distinguished themselves by their implacable enmity against the Romans, in the early ages of that republic; but were at last totally subdued, and, according to some, extirpated, about A. A. C. 272, after a war of seventy-one years. See **ROME**.

SAMOGITIA, or **SZAMAIT**, a tract of Russian Lithuania, forming the north-west part of that great province, and bearing the title of county. It lies to the south of Courland, and to the north of Prussia Propér, having part of its western boundary along the Baltic, but without any harbour of consequence.

SAMOLUS, in botany, round-leaved water pimpernel, a genus of the monogynia order, and pentandria class of plants; natural order twenty-first, præciæ: **cor.** salver-shaped; stamina surrounded by small scales at its throat: **caps.** unilocular inferior. Species four, one of which, *S. valerandi*, is common to the marshes of our country.

SAMON, an island in the eastern seas, lying off Timor to the north-west. It is woody, hilly land, but not mountainous, and towards the south end low. A woody island, called *Tios* in the charts, lies off the south-west point, which is the only thing like danger on the west side; but the tides run strong here, and make formidable riplings.

SAMOS, in ancient geography, an island of Asia, in the Ægean Sea, near the promontory Mycale, opposite to Ephesus; in compass eighty-seven miles according to Pliny, or 100 according to Isidorus; famous for a temple of Juno, with a noted asylum, whence their coin exhibited a peacock. It was the country of Pythagoras, who, to avoid the oppression of its tyrants, retired to Italy. Samos was first governed by kings, afterwards became a democracy, and at last an oligarchy. It was most flourishing under Polycrates. The Samians assisted the Greeks against Xerxes. They were conquered by Pericles A. A. C. 441: afterwards by Eumenes king of Pergamus; but restored to liberty by Augustus. Samos was reduced to a Roman province under Vespasian.

SAMOS, an island of the Grecian archipelago, separated only by a narrow strait from the opposite continent of Asia Minor. See **GREECE**.

SAMOTHRACE, or **SAMOTHRACIA**, in ancient geography, an island in the Ægean Sea, opposite the mouth of the Hebrus, thirty-two miles from the coast of Thrace. It was also called Dardania, Electria, Leucania, Leucosia, Melitis, and Samos; and hence Samothrace, or Thracian Samos, to distinguish it from Samos in Asia Minor. Pliny makes it thirty-eight miles in circumference, but modern travellers say it is only twenty. Before the age of the Argonauts it was deluged to the top of the highest mountains by a sudden inundation of the Euxine. It was anciently go-

verned by kings, but, like most other states in Greece, became afterwards democratic. The people enjoyed all their rights and privileges under the Romans till the reign of Vespasian. By him it was reduced, with the other islands in the Ægean Sea, to the form of a Roman province. It is now under the Turks, and by them named Samandracchi.

SAMOYEDES, a savage race who traverse the immense and frozen deserts extending along the northern coast of Asia. They do not recognise themselves by this name, which has been given to them by the Russians, but call them selves *Khasova*. They extend, on the European side, as far as the river Mesen, which falls into the White Sea; while they inhabit the shores of Asia, eastward to the Olenek, and almost to the Lena: thus filling up the space between 40° and 120° of E. long., a line of upwards of 2000 miles. The whole of this vast extent is not supposed to contain a population of more than 20,000. They are divided into three great tribes: the *Vanoites*, who inhabit the banks of the *Petchora* and the *Obi*, in the vicinity of *Obdorsk*; the *Tysia-Igoley*, who are found on the *Mesen*, and in the interior of the government of *Archangel*; and the *Khirutches*, who fill the remoter and interior parts of *Siberia*. The rude traditions concerning their origin seem to support the conjecture that they were driven hither, by war and oppresson, from happier climates.

Like other tribes of these ungenial climates, they are a small and stunted race, commonly between four and five feet high. They have a flat, round, broad face, large thick lips, a wide and open nose, little beard, and black and rough hair in small quantity, carefully arranged. The dress of the men differs little from that of the *Ostiaks*; but they are reckoned more savage, and are very superstitious.

SAMP, a dish said to have been invented by the savages of North America, who have no corn mills. It is Indian corn deprived of its external coat by soaking it ten or twelve hours in a lixivium of water and wood-ashes. This coat or husk, being separated from the kernel, rises to the surface of the water, while the grain, which is specifically heavier than water, remains at the bottom of the vessel; which grain, thus deprived of its hard coat of armour, is boiled, or rather simmered, for two days, in a kettle of water near the fire. When sufficiently cooked, the kernels swell to a great size and burst open; and this food, which is uncommonly sweet and nourishing, may be used in a variety of ways; but the best way is to mix it with milk, and with soups and broths, as a substitute for bread. It is even better than bread for these purposes; for, besides being quite as palatable as the very best bread, it is less liable than bread to grow very soft when mixed with these liquids.

SAMPHIRE, *n. s.* Fr. *saint Pierre*; Lat. *crithmum*. A plant preserved in pickle.

Half way down

Hangs one that gathers *samphire*: dreadful trade!
Methinks he seems no bigger than his head.

Shakspeare

This plant grows in great plenty upon the rocks near the sea-shore, where it is washed by the salt

water. It is greatly esteemed for pickling, and is sometimes used in medicine. *Miller.*

SAMPHIRE. See CRITHMUM.

SAMPLE, *n. s.* } Corrupted from example
SAMPLER. } and exemplar. A specimen; part of the whole shown, that judgment may be made of the whole: a pattern of work.

O love, why dost thou in thy beautiful *sampler* set such a work for my desire to set out, which is impossible? *Sidney.*

Fair Philomela, she but lost her tongue,
And in a tedious *sampler* sewed her mind.

Shakspeare.

We created with our needles both one flower,
Both on one *sampler*, sitting on one cushion;
Both warbling of one song, both in one key;
As if our hands, our sides, voices, and minds
Had been incorporate. *Id.*

He entreated them to tarry but two days, and he himself would bring them a *sample* of the ore. *Raleigh.*

Coarse complexions,
And cheeks of sorry grain, will serve to ply
The *sampler*, and to tease the housewife's wool. *Milton.*

I have not engaged myself to any: I am not loaded with a full cargo: 'tis sufficient if I bring a *sample* of some goods in this voyage. *Dryden.*

Determinations of justice were very summary and decisive, and generally put an end to the vexations of a law-suit by the ruin both of plaintiff and defendant: travellers have recorded some *samples* of this kind. *Addison.*

From most bodies
Some little bits ask leave to flow;
And, as through these canals they roll,
Bring up a *sample* of the whole. *Prior.*
I design this but for a *sample* of what I hope more fully to discuss. *Woodward.*
I saw her sober over a *sampler*, or gay over a jointed baby. *Pope.*

SAMSON, the son of Manoah, of the tribe of Dan, and a judge of Israel. The extraordinary circumstances of his birth, life, miraculous strength, marriage, repeated defeats of the Philistines, captivity, and death, are recorded in Judges xiii.—xvi. He judged Israel twenty years. Chronologists place his death in A. M. 2887, or A. A. C. 1117: Milton wrote a beautiful poem on his history, entitled *Samson Agonistes*.

SAMSON'S POST, a sort of pillar erected in a ship's hold, between the lower deck and the kelson, under the edge of a hatchway, and furnished with several notches that serve as steps to mount or descend, as occasion requires. This post, being firmly driven into its place, not only serves to support the beam and fortify the vessel in that place, but also to prevent the cargo or materials contained in the hold from shifting to the opposite side by the rolling of the ship in a turbulent or heavy sea.

SAMSOON, a city of Asia Minor, on the Black Sea, and on the site of the ancient Amisus, which, after Sinope, was the most opulent city in Pontus. It is situated near the west end of a bay, about four miles in length, and surrounded by olive trees. The houses, which are made of wood, plastered with mud, and white-washed, produce a good effect. The modern town is small, surrounded by a decayed wall, which,

from the form of the arches of the gates, and some ancient pieces of sculpture, intermixed with the other stones, appears to have been built by the Turks: but the town can boast of five mosques, with minarets, and a large khan for the use of merchants. The ships belonging to the port are navigated by the Greeks; adjoining villages are inhabited chiefly by Christians. Inhabitants 2000.

SAMUEL, an eminent inspired prophet, historian, and judge of Israel, and the last judge of that commonwealth. He was the son of Elkanah, a Levite of the family of Kohath, by his beloved wife Hannah. The extraordinary circumstances preceding his birth; his early dedication to God by his mother, with her beautiful hymn on that occasion; the revelations communicated to him by the Almighty; his reformation of the people, and their consequent victory over the Philistines; the conduct of his sons, which excited the people to desire a change of government; his description of the character of a king; his anointing of Saul their first monarch; his appeal to the people respecting his own just government; his repeated reproofs of king Saul for his improper conduct; his just punishment of the murderous monarch of the Amalekites; his anointing of David; and his death,—are recorded 1 Sam. i.—xxv. He is reckoned the author of the books of Judges and Ruth.

SAMUEL, THE BOOKS OF, two canonical books of the Old Testament. The books of Samuel and the books of Kings are a continued history of the reigns of the kings of Israel and Judah; for which reason the books of Samuel are likewise styled the first and second book of Kings. Since the first twenty-four chapters contain all that relates to the history of Samuel, and the latter part of the first book and all the second include the relation of events that happened after the death of that prophet, it has been supposed that Samuel was author of the first twenty-four chapters, and that the prophets Gad and Nathan finished the work. The first book of Samuel comprehends the transactions under the government of Eli and Samuel, and under Saul the first king; and also the acts of David while he lived under Saul. The second book is wholly spent in relating the transactions of David's reign.

SAMYDA, in botany, a genus of the monogynia order, and decandria class of plants: CAL. quinquepartite and colored: cor. none: caps. the inside resembles a berry, is trivalved and unilocular: the SEEDS nestling. Species ten, natives of the East and West Indies.

SANADON (Noel Stephen), a Jesuit, born at Rouen in 1676, and a distinguished professor of humanity at Caen. He there became acquainted with Huet bishop of Avranches, afterwards his intimate friend. Sanadon next taught rhetoric at the university of Paris, and was entrusted with the education of the prince of Conti after the death of Du Morceau. In 1728 he was made librarian to Louis XIV., an office which he retained to his death. He died on the 21st September 1733, in the fifty-eighth year of his age. His works are, 1. Latin Poems, in 12mo., 1715, and by Barbou, in 8vo., 1754. These consist of Odes, Elegies, Epigrams, &c. 2. A

Translation of Horace, with Remarks, in 2 vols. 4to., Paris, 1727; best edition Amsterdam, 1735, in 8 vols. 12mo.; with the notes of M. Dacier. Sanadon translated with elegance and taste; but his version is rather a paraphrase than a faithful translation. 3. A collection of Discourses; and 4. Prieres et Instructions Chretiennes.

SANATIVE, *adj.* } Lat. *sano*. Powerful
SANATION, *n. s.* } to cure; healing: the act of curing.

The vapour of coltsfoot hath a *sanative* virtue towards the lungs. *Bacon's Natural History.*

Consider well the member, and, if you have no probable hope of *sanation*, cut it off quickly.

Wiseman's Surgery.

SANBALLAT, the governor of the Samaritans, a great enemy to the Jews. He was a native of Horon, or Horonaim, a city beyond Jordan, in the country of the Moabites. He lived in the time of Nehemiah, who was his great opponent, and from whose book we learn his history. There is one circumstance related of him by Josephus which has occasioned some dispute among the learned. According to that author, when Alexander the Great came into Phenicia, and sat down before the city of Tyre, Sanballat quitted the interests of Darius king of Persia, and went at the head of 8000 men to offer his services to Alexander. This prince readily entertained him, and, at his request, gave him leave to erect a temple upon mount Gerizim, where he constituted his son-in-law Manasseh the high-priest. But this is a flagrant anachronism; for 120 years before this, that is, in A. M. 3550, Sanballat was governor of Samaria; whereas the learned Dr. Prideaux (in his *Connexion of the Histories of the Old and New Testament*) supposes two Sanballats, and endeavours to show it to be a mistake of Josephus, in making Sanballat to flourish in the time of Darius Codomannus, and to build his temple upon mount Gerizim by license from Alexander the Great; whereas this was performed by leave from Darius Nothus, in the fifteenth year of his reign.

SANCHES (Anthony Nunes Ribeiro), M. D., a learned physician, born at Penna-Macor in Portugal, in 1699. His father, an opulent merchant, gave him a liberal education, intending him for the law, and, on finding him prefer physic, withdrew his protection; on which his maternal uncle, Dr. Nunes Ribeiro, a physician at Lisbon, furnished him with the means of prosecuting his studies, at Coimbra and Salamanca; where he took his degree in 1724. In 1725 he was appointed physician to the town of Benevente. About 1727 he came over to London, where he spent two years; after which he studied at Leyden under Boerhaave; who, in 1731, recommended him to the empress Anne of Russia. On his arrival at Petersburg Dr. Bidloo, then first physician to the empress, gave him an appointment in the hospital at Moscow, where he continued till 1734, when he was appointed physician to the army, and was present at the siege of Asoph. In 1740 he was appointed one of the physicians to the empress, who had labored eight years under a disease which he asserted to be a stone in the kidney. His opinion was confirmed at her death, six months after, upon open-

ing her. The regency that succeeded appointed him first physician; but the revolution of 1742, which placed Elizabeth on the throne, deprived him of all his employments. Hardly a day passed that he did not hear of some of his friends being executed; and it was with difficulty that he obtained leave to retire from Russia. In 1747 he went to Paris, where he continued till October 14th, 1783, when he died. His printed works, on the Origin of the Venereal Disease, and other subjects, are well known to the faculty. He was a member of the Royal Medical Society at Paris, and of the Royal Academy of Lisbon, to the establishment of which he had contributed.

SANCHEZ (Francis), in Latin Sanctius, was of Las Brocas in Spain. He wrote, 1. An excellent treatise entitled *Minerva, or De Causis Linguae Latinae*, which was published at Amsterdam in 1714, in 8vo. The authors of the *Portroyal Methode de la Langue Latine* have been much indebted to this work. 2. *The Art of Speaking, and the Method of Translating Authors*. 3. Several other learned pieces on grammar. He died in 1600, in his seventy-seventh year.

SANCHEZ (Francis), a Portuguese physician, who settled at Toulouse, and, though a Christian, was born of Jewish parents. He is said to have been a man of genius and a philosopher. His works have been collected under the title of *Opera Medica*. His *juncti sunt tractatus quidam philosophici non insubtiles*. They were printed at Toulouse in 1636; where Sanchez died in 1632.

SANCHONIATHO, or **SANCHONIATHON**, a Phenician philosopher and historian, who is said to have flourished before the Trojan war, about the time of Semiramis. Of this most ancient writer the only remains extant are fragments of cosmogony, and of the history of the gods and first mortals, preserved by Eusebius and Theodoret; both of whom speak of Sanchoniatho as an accurate and faithful historian; and the former adds that his work, which was translated by Philo Byblius from the Phenician into the Greek language, contains many things relating to the history of the Jews which deserve great credit, both because they agree with the Jewish writers, and because the author received these particulars from the annals of Hierombalus, a priest of the god Jao. Several modern writers, however, of great learning, have called in question the very existence of Sanchoniatho, and have contended that the fragments which Eusebius adopted as genuine, upon the authority of Porphyry, were forged by that author, or the pretended translator Philo, from enmity to the Christians, that the Pagans might have something to show of equal antiquity with the books of Moses. These opposite opinions have produced a controversy that has filled volumes. We can, however, only refer such of our readers as are desirous of fuller information to the works of Bochart, Scaliger, Vossius, Cumberland, Dodwell, Stillingfleet, Mosheim, Cudworth, and Warburton. The controversy respects two questions, 1. Was there in reality such a writer? 2. Was he of the very remote antiquity which his translator claims for him?

That there was really such a writer, and that

the fragments preserved by Eusebius are indeed parts of his history, interpolated perhaps by the translator, we are fully persuaded. Eusebius, who admitted them into his work as authentic, was one of the most learned men of his age. He had better means than any modern writer can have of satisfying himself with respect to the authenticity of a very extraordinary work, which had then but lately been translated into the Greek language, and made generally known; and there is nothing in the work itself, or at least in those parts of it which he has preserved, that could induce a wise and good man to obtrude it upon the public as genuine, had he himself suspected it to be spurious. Too many of the Christian fathers were indeed very credulous, and ready to admit the authenticity of writings without duly weighing the merits of their claim; but then such writings were always believed to be favorable to the Christian cause, and inimical to Paganism. That no man of common sense could suppose the cosmogony of Sanchoniatho favorable to the cause of revealed religion, a further proof cannot be required than the following extract:—‘He affirms that the principles of the universe were a dark and windy air, or a wind made of dark air, and a turbulent evening chaos; and that these things were boundless, or for a long time had no bound or figure. But when this wind fell in love with its own principles, and a mixture was made, that mixture was called desire, or Cupid (*πρωτος*). This mixture completed was the beginning of the (*κτισωσς*) making of all things. But that wind did not know its own production; and of this, with that wind, was begotten mot, which some call mud, others the putrefaction of a watery mixture. And of this came all the seed of this building, and the generation of the universe. But there were certain animals which had no sense, out of which were begotten intelligent animals, and were called Zophesemin, that is, the spies or overseers of heaven; and were formed alike in the shape of an egg. Thus shone out mot, the sun and the moon, the less and the greater stars. And the air shining thoroughly with light, by its fiery influence on the sea and earth, winds were begotten, and clouds and great defluxions of the heavenly waters. And all these things first were parted, and were separated from their proper place by the heat of the sun, and then all met again in the air, and dashed against one another, and were so broken to pieces; whence thunders and lightnings were made; and at the stroke of these thunders the fore-mentioned intelligent animals were awakened, and frighted with the sound; and male and female stirred in the earth and in the sea.’ This is their generation of animals. After these things Sanchoniatho goes on saying: ‘These things are written in the Cosmogony of Tautes, and in his memoirs; and out of the conjectures, and surer natural signs which his mind saw, and found out, and wherewith he hath enlightened us.’ Afterwards declaring the names of the winds north and south, and the rest, he makes this epilogue: ‘But these first men consecrated the plants shooting out of the earth, and judged them gods, and worshipped them; upon whom they themselves lived, and

all their posterity and all before them; to these they made their meat and drink offerings.’ Then he concludes, ‘These were the devices of worship agreeing with the weakness and want of boldness in their minds.’ Let us suppose Eusebius to have been as weak and credulous as the darkest monk in the darkest age of Europe, a supposition which no man will make who knows any thing of his writings, what could he see in this senseless jargon which even a dreaming monk would think of employing in support of Christianity? Eusebius justly styles it direct atheism, but could he imagine that an ancient system of atheism would contribute so much to make the Pagans of his age admit as divine revelations the books of the Old and New Testaments, that he should be induced to adopt, without examination, an impudent forgery not 200 years old as genuine remains of the most remote antiquity? If this Phœnician cosmogony be a fabrication of Porphyry, or of the pretended translator, it must surely have been fabricated for some purpose; but it is impossible to conceive what purpose either of these writers could have intended to serve by forging a system so extravagantly absurd. Porphyry, though an enemy to the Christians, was not an atheist, and would never have thought of making an atheist of him whom he meant to obtrude upon the world as the rival of Moses. His own principles were those of the Alexandrian Platonists; and, had he been the forger of the works which bear the name of Sanchoniatho, instead of the incomprehensible jargon about dark wind, evening chaos, mot, the overseers of heaven in the shape of an egg, and animation proceeding from the sound of thunder, we should doubtless have been amused with refined speculations concerning the operations of the Demiurgus and other persons in the Platonic Triad. See PLATONISM, and PORPHYRY. F. Simon of the oratory imagines (Bib. Crit. vol. i. p. 140) that the purpose for which the history of Sanchoniatho was forged was to support paganism, by taking from it its mythology and allegories, which were perpetually objected to it by the Christian writers; but this learned man totally mistakes the matter. The primitive Christians were too much attached to allegories themselves to rest their objections to Paganism on such a foundation; what they objected to that system was the immoral stories told of the gods. To this the Pagan priests and philosophers replied, that these stories were only mythologic allegories, which veiled all the great truths of theology, ethics, and physics. The Christians said this could not be; for that the stories of the gods had a substantial foundation in fact, these gods being only dead men deified, who in life had like passions and infirmities with other mortals. This then was the objection which the forger of the works of Sanchoniatho had to remove, if he really forged them in support of Paganism; but, instead of doing so, he gives the genealogy and history of all the greater gods, and shows that they were men deified after death for the exploits, some of them grossly immoral, which they had performed in this world. We have elsewhere given his account of the deification of Chryсор, and Ouranos, and Ge, and Ilypsistos, and Muth;

but our readers may wish to accompany him through the history of Ouranos and Chronus, two of his greatest gods; whence it will appear how little his writings are calculated to support the tottering cause of Paganism against the objections urged to it by the Christian apologists. 'Ouranos,' says he, 'taking the kingdom of his father, married Ge his sister, and by her had four sons; Ilus, who is called Chronus; Betylus; Dagon who is Siton, or the god of corn; and Atlas. But by other wives Ouranos had much issue, wherefore Ge, being grieved at it and jealous, reproached Ouranos, so that they parted from each other. But Ouranos, though he parted from her, yet by force invading her, and lying with her when he listed, went away again; and he also attempted to kill the children he had by her. Ge also often defended or avenged herself, gathering auxiliary powers unto her. But when Chronus came to man's age, using Hermes Trismegistus as his counsellor and assistant (for he was his secretary), he opposed his father Ouranos, avenging his mother. But Chronus had children, Persephone and Athena; the former died a virgin, but by the council of the latter Athena, and of Hermes, Chronus made of iron a scimitar and a spear. Then Hermes, speaking to the assistants of Chronus with enchanting words wrought in them a keen desire to fight against Ouranos in the behalf of Ge; and thus Chronus warring against Ouranos, drove him out of his kingdom, and succeeded in the imperial power. In the fight was taken a well-beloved concubine of Ouranos big with child. Chronus gave her in marriage to Dagon, and she brought forth at his house what she had in her womb by Ouranos, and called him Demaroon. After these things Chronus builds a wall round about his house, and founds Byblus the first city in Phenicia. Afterwards Chronus, suspecting his own brother Atlas, with the advice of Hermes, throwing him into a deep hole of the earth, there buried him, and having a son called Sadid, he despatched him with his own sword, having a suspicion of him, and deprived his own son of life with his own hand. He also cut off the head of his own daughter, so that all the gods were amazed at the mind of Chronus. But, in process of time, Ouranos being in banishment, sends his daughter Astarte, with two other sisters Rhea and Dione, to cut off Chronus by deceit, whom Chronus taking, made wives of these sisters. Ouranos, understanding this, sent Eimarmene and Hore, Fate and Beauty, with other auxiliaries, to war against him; but Chronus, having gained the affections of these also, kept them with himself. Ouranos devised Bætulia, contriving stones that moved as having life. But Chronus begat on Astarte seven daughters, called Titanides or Artemides; and he begat on Rhea seven sons, the youngest of whom, as soon as he was born, was consecrated a god. Also by Dione he had daughters, and by Astarte two sons, Pothos and Eros, i. e. Cupid and Love. But Dagon, after he had found out bread, corn, and the plough, was called Zeus Aratrius. To Sedyc, or the just, one of the Titanides bare Asclepius. Chronus had also in Peræa three sons: 1. Chronus, his father's namesake. 2. Zeus Belus. 3. Apollo.' Is it con-

ceivable that a writer so acute as Porphyry, or indeed that any man of common sense, would forge a book filled with such stories as these, to remove the Christian's objections to the immoral characters of the Pagan divinities? The supposition is impossible. Nor is Sanchoniatho here writing allegorically, and by his tales of Ouranos, and Ge, and Chronus, only personifying the heaven, the earth, and time. On the contrary, he assures us that Ouranos, or Epigeus, or Autochthon, was the son of one Eliaun or Hypsis-tos, who dwelt about Byblus, and that from him the element which is over us was called heaven, on account of its excellent beauty, as the earth was named Ge after his sister and wife. And his translator is very angry with the Neoteric Greeks, as he calls them, because that, 'by a great deal of force and straining, they labored to turn all the stories of the gods into allegories and physical discourses.' This proves that the author of this book did not mean to veil the great truths of religion under the cloak of mythologic allegories; and therefore, if it was forged by Porphyry in support of Paganism, the forger so far mistook the state of the question between him and his adversaries, that he contrived a book, which, if admitted to be ancient, totally overthrew his own cause. The next enquiry with respect to Sanchoniatho is his antiquity. Did he really live and write at so early a period as Porphyry and Philo pretend? We think he did not; and what confirms our opinion is that mark of national vanity and partiality in making the sacred mysteries of his own country original, and conveyed from Phenicia into Egypt. This, however, furnishes an additional proof that Porphyry was not the forger of the work; for he well knew that the mysteries had their origin in Egypt (see MYSTERIES), and would not have fallen into such a blunder. He is guilty, indeed, of a very great anachronism, when he makes Sanchoniatho contemporary with Semiramis, and yet pretends that what he writes of the Jews is compiled from the records of Hierombalus the priest of the god Jao; for Bochart has made it appear highly probable that Hierombalus or Jerom-baal is the Jerub-baal or Gideon of Scripture. Between the reign of Semiramis and the Trojan war a period elapsed of nearly 800 years, whereas Gideon flourished not above seventy years before the destruction of Troy. But, supposing Sanchoniatho to have really consulted the records of Gideon, it by no means follows that he flourished at the same period with that judge of Israel. His atheistic cosmogony he does not indeed pretend to have got from the priest of Jao, but from records deposited in his own town of Berytus by Thoth, a Phœnician philosopher, who was afterwards king of Egypt. Stillingfleet indeed thinks it most probable that Sanchoniatho became acquainted with the most remarkable passages of the life of Jerub-baal from annals written by a Phœnician pen. He observes that, immediately after the death of Gideon, the Israelites, with their usual proneness to idolatry, worshipped Baal-berith, or the idol of Berytus, the town in which Sanchoniatho lived; and from this circumstance he concludes that there must have been such an intercourse between the Hebrews

and Berytians, that in process of time the latter people might assume to themselves the Jerubbaal of the former, and hand down his actions to posterity as those of a priest instead of a great commander. All this may be true; but, if so, it amounts to a demonstration, that the antiquity of Sanchoniatho is not so high by many ages as that which is claimed for him by Philo and Porphyry, though he may still be more ancient, as we think Vossius has proved him to be, than any other profane historian whose writings have come down to us, either entire or in fragments. (De Hist. Græc. lib. i. c. 1). But, granting the authenticity of Sanchoniatho's history, what, it may be asked, is the value of his fragments, that we should take the trouble to ascertain whether they be genuine remains of high antiquity, or the forgeries of a modern impostor? We answer, with the illustrious Stillingfleet, that though those fragments contain such absurdities as it would be a disgrace to reason to suppose credible; though the whole cosmogony is the grossest sink of atheism; and though many persons make a figure in the history, whose very existence may be doubted; yet we, who have in our hands the light of divine revelation, may in this dungeon discover many excellent relics of ancient tradition, which throw no feeble light upon many passages of Holy Scripture, as they give us the origin and progress of that idolatry which was so long the opprobrium of human nature. They furnish too a complete confutation of the extravagant chronology of the Chaldeans and Egyptians, and show, if they be genuine, that the world is indeed not older than it is said to be by Moses. We would therefore recommend to our readers an attentive perusal of Cumberland's Sanchoniatho.

SANCROFT (William), archbishop of Canterbury, was born at Fresingfield, in Suffolk, in 1616; and admitted into Emanuel College, Cambridge, in 1633. In 1642 he was elected a fellow; and, for refusing to take the covenant, was ejected. In 1660 he was chosen one of the university preachers; in 1663 was nominated dean of York; and in 1664 dean of St. Paul's. In this station he began to repair the cathedral, till the fire of London in 1666 employed his thoughts on the more noble undertaking of rebuilding it, toward which he gave £1400. He also rebuilt the deanery, and improved the revenue of it. In 1668 he was admitted archdeacon of Canterbury on the king's presentation. In 1677, being prolocutor of the convocation, he was promoted to be archbishop of Canterbury. In 1678 he was committed to the Tower with six other bishops, for presenting a petition to king James against reading the declaration of indulgence. Upon the king withdrawing himself, he concurred with the lords in a declaration to the prince of Orange for a free parliament, and due indulgence to the protestant dissenters. But, when that prince and his consort were declared king and queen, his grace, refusing to take the oaths, was suspended and deprived. He lived privately till his death in 1693. His learning, integrity, and piety, made him an exalted ornament of the church. He published a volume in 12mo., entitled *Modern Politics*, taken from

Machiavel, Borgia. and other authors; Familiar Letters to Mr. North, an 8vo. pamphlet, and three of his sermons were printed together after his death.

SANCTIFY, *v. a.* } Fr. *sanctifier*; Lat. }
 SANCTIFICATION, *n. s.* } *sanctifico*. To make }
 SANCTIFIER, } holy; free from sin, }
 SANCTIMONIOUS, *adj.* } or moral taint; make }
 SANCTIMONY, *n. s.* } a means of holiness; }
 SANCTITUDE, } secure from pollution }
 SANCTITY, } or violation: sanctifi- }
 SANCTUARIZE, *v. a.* } cation and sanctifier }
 SANCTUARY, *n. s.* } correspond with the }
 verb: sanctimonious is having the appearance of }
 sanctity or sanctitude, which are synonymous, }
 and signify holiness; goodness; godliness: to }
 sanctuarize is to shelter under sacred privileges }
 (obsolete): a sanctuary is a holy place; the }
 most sacred part of a temple or place of worship; }
 place of protection; asylum; shelter.

For if the blood of bulls, sprinkling the unclean, sanctifieth to the purifying of the flesh, how much more shall the blood of Christ! *Heb. ix. 13.*

The grace of his sanctification and life, which was first received in him, might pass from him to his whole race, as malediction came from Adam unto all mankind. *Hooker.*

The gospel, by not making many things unclean, as the law did, hath sanctified those things generally to all, which particularly each man to himself must sanctify by a reverend and holy use. *Id.*

Her pretence is a pilgrimage, which holy undertaking, with most austere sanctimony, she accomplished. *Shakspeare.*

At his touch,

Such sanctity hath heaven given his hand,
 They presently amend. *Id.*
 No place indeed should murder sanctuarise. *Id.*
 Come, my boy, we will to sanctuary. *Id.*
 Oft have I heard of sanctuary men;
 But sanctuary children ne'er 'till now. *Id.*

There was great reason why all discreet princes should beware of yielding hasty belief to the robes of sanctimony. *Raleigh.*

He fled to Beverly, where he and divers of his company registered themselves sanctuary men.

Bacon's Henry VII.

Those judgments God hath been pleased to send upon me, are so much the more welcome, as a means which his mercy hath sanctified so to me as to make me repent of that unjust act. *King Charles.*

In their looks divine

The image of their glorious maker shone,
 Truth, wisdom, sanctitude, serene and pure. *Milton.*

God attributes to place

No sanctity, if none be thither brought
 By men who there frequent. *Id.*
 About him all the sanctities of heav'n
 Stood thick as stars, and from his sight received
 Beatitude past utterance. *Id.*

They often plac'd

Within his sanctuary itself their shrines. *Id.*
 The bishop kneels before the cross, and devoutly adores and kisses it: after this follows a long prayer for the sanctification of that new sign of the cross. *Stillingfleet.*

The holy man, amazed at what he saw,
 Made haste to sanctify the bliss by law. *Dryden.*

The admirable works of painting were made fuel for the fire; but some reliques of it took sanctuary under ground, and escaped the common destiny.

Id. Dufresnoy.

A *sanctimonious* pretence, under a pomp of form, without the grace of an inward integrity, will not serve the turn.

L'Estrange.

What are the bulls to the frogs, or the lakes to the meadows?—Very much, says the frog; for he that's worsted will be sure to take *sanctuary* in the fens.

Id.

Those external things are neither parts of our devotion, or by any strength in themselves direct causes of it; but the grace of God is pleased to move us by ways suitable to our nature, and to *sanctify* these sensible helps to higher purposes.

South.

What actions can express the entire purity of thought, which refines and *sanctifies* a virtuous man?

Addison.

It was an observation of the ancient Romans, that their empire had not more increased by the strength of their arms than the *sanctity* of their manners.

Id.

Let it not be imagined that they contribute nothing to the happiness of the country who only serve God in the duties of a holy life, who attend his *sanctuary*, and daily address his goodness.

Roger's Sermons.

To be the *sanctifier* of a people, and to be their God, is all one.

Derham's Physico-Theology.

Truth guards the poet, *sanctifies* the line.

Pope.

SANCTION, *n. s.* Fr. *sanction*; Lat. *sanctio*. The confirmation which gives to any thing its obligatory power; ratification.

I have killed a slave,

And of his blood caused to be mixed with wine.

Fill every man his bowl. There cannot be

A fitter drink to make this *sanction* in.

Ben Jonson.

Against the public *sanctions* of the peace,

With fates averse, the rout in arms resort,

To force their monarch.

Dryden's Æneis.

There needs no positive law or *sanction* of God

to stamp an obliquity upon such a disobedience.

South.

This word is often made the *sanction* of an oath: it is reckoned a great commendation to be a man of honour.

Swift.

The satisfactions of the Christian life, in its present practice and future hopes, are not the mere raptures of enthusiasm, as the strictest professors of reason have added the *sanction* of their testimony.

Watts.

Wanting *sanction* and authority, it is only yet a private work.

Baker on Learning.

SANCTORIUS, or **SANTORIUS**, an ingenious and learned physician, was a professor in the university of Padua in the beginning of the seventeenth century. He contrived a kind of weighing chair, by means of which, after estimating the aliments received, and the sensible discharges, he was enabled to determine with great exactness the quantity of insensible perspiration, &c. On these experiments he erected a curious system, which he published under the title of *De Medicina Statica*, of which we have an English translation by Dr. Quincy. **Sanctorius** published several other treatises, which showed great abilities and learning.

SANCTUARY, among the Jews, also called *sanctum sanctorum*, or holy of holies, was the holiest and most retired part of the temple of Jerusalem, in which the ark of the covenant was preserved, and into which none but the high priest was allowed to enter, and that only once a-year, to intercede for the people. Some dis-

tinguish the sanctuary from the *sanctum sanctorum*, and maintain that the whole temple was called the sanctuary. To try and examine any thing by the weight of the sanctuary, is to examine it by a just and equal scale; because, among the Jews, it was the custom of the priests to keep stone weights, to serve as standards for regulating all weights by, though these were not at all different from the royal or profane weights.

SANCTUARY, in the Romish church, is also used for that part of the church in which the altar is placed, encompassed with a rail or balustrade.

SANCTUS, **SANCUS**, or **SANGUS**, a deity of the Sabines, introduced among the gods of ancient Rome, by the name of *deus fidius*. He was the father of *Sabinus*, the first king of the Sabines.

SAND, *n. s.*

SAND'BLIND, *adj.*

SAND'ED,

SAND'ISH,

SAND'STONE, *n. s.*

SAND'Y, *adj.*

Sax. *pand*; and all the northern languages. Particles of loam, stone, or gravelly earth; in fact, sundered stone: hence barren country covered with sand: sandblind, having a disease in which sand, or small matters, appears to fly before the sight: sanded is, covered with sand; barren; marked with small spots: sandish, loose; having the nature of sand: sandstone, stone that easily crumbles to sand: sandy, abounding with, or like, sand; loose.

Most of his army being slain, he, with a few of his friends, sought to save themselves by flight over the desert sands.

Knolles.

Here i' the' sands

Thee I'll rake up, the most unsanctified.

My true begotten father, being more than sand-

blind, high gravelblind, knows me not.

Id. Merchant of Venice.

My hounds are bred out of the Spartan kind, So flewed, so sanded, and their heads are hung With ears that sweep away the morning dew.

Shakspeare.

Safer shall he be on the sandy plains,

Than where castles mounted stand.

Id.

Sand hath always its root in clay, and there be no veins of sand of any great depth within the earth.

Bacon.

Favour, so bottomed upon the sandy foundation of personal respects only, cannot be long lived.

Bacon on Villiers.

Her sons spread

Beneath Gibraltar to the Libyan sands.

Milton.

Engaged with money bags, as bold

As men with sand bags did of old.

Hudibras.

A region so desert, dry, and sandy, that travellers are fain to carry waters on their camels.

Broune's Vulgar Errors.

SAND, **CHARLES LOUIS**, student of theology, who murdered *Kotzebue*, was born 5th of October, 1795, at *Wansiedel*, in the *Fitchetelgerbege*, where his father held a judicial office. In 1812 he was sent to the gymnasium of *Ratisbon*; in 1814 he entered the university of *Tubingen*; and in 1815 joined the *Bavarian army*, as a volunteer, against the French. After the peace, he pursued his studies at *Erlangen*, when, in 1817, his most attached friend was drowned in his presence, without his being able to render him any assistance. In the autumn of 1817, he went to the university of *Jena*, and became a member of the *Burchenschaft*. His soul now

became animated with that enthusiastic devotion to what he considered the amelioration of his country, that was then predominant amongst the youth of Germany. Amongst the writers of that period who ridiculed the ardour of these youthful patriots, Kotzebue was the most prominent. Kotzebue also was discovered to be acting at the instigation of the Russian government. Sand, therefore, viewed Kotzebue as the enemy of his country, and considered that his duty could only be conscientiously discharged by the removal of so powerful an enemy to her liberties. On the afternoon of the 9th of March, 1819, he went to Kotzebue's residence at Menheim, delivered him a letter, and whilst he was reading, stabbed him with a dagger. He passed down stairs, handed a paper to the servant, inscribed, "Death-blow to Augustus Von Kotzebue," and hastening into the street, knelt down, and exclaimed, "Long live my German father-land." He next attempted to destroy himself, but was arrested, tried, and executed on the 20th of May, 1820. Kotzebue died soon after the murderous attack.

SAND, in natural history, a genus of fossils, the characters of which are, that they are found in minute concretions; forming together a kind of powder, the genuine particles of which are all of a tendency to one determinate shape, and appear regular though more or less complete concretions; not to be dissolved or disunited by water, or formed into a coherent mass by means of it, but retaining their figure in it; transparent, vitrifiable by extreme heat, and not dissoluble in, nor effervescing with acids. Sands are subject to be variously blended, both with homogeneous and heterogeneous substances, &c., and hence, as well as from their various colors, are subdivided into, 1. White sands, whether pure or mixed with other arenaceous or heterogeneous particles; of all which there are several species, differing no less in the fineness of their particles than in the different degrees of color, from a bright and shining white, to a brownish, yellowish, greenish, &c., white. 2. The red and reddish sands, both pure and impure. 3. The yellow sands, whether pure or mixed, are also very numerous. 4. The brown sands distinguished in the same manner. 5. The black sands whereof there are only two species, viz. a fine shining grayish-black sand, and another of a fine shining reddish-black color. 6. The green kind of which there is only one known species, viz. a coarse variegated dusky green sand, common in Virginia. Sand is of great use in the glass manufacture; a white kind of sand being employed for making of the white glass, and a coarse greenish looking sand for the green glass. In agriculture it seems to be the office of sand to make unctuous earths fertile, and fit to support vegetables, &c. A vegetable planted only in sand, or in a fat glebe, or in earth, receives little growth or increase; but a mixture of both renders the mass fertile. Common sand is therefore a very good addition, by way of manure, to all sorts of clay lands: it warms them, and makes them more open and loose.

By the sand from the sea-shore many valuable pieces of land have been entirely lost; of which we

give the following instances from Mr. Pennant: 'I have more than once,' says he, 'on the east coasts of Scotland, observed the calamitous state of several extensive tracts, formerly in a most flourishing condition, at present covered with sands, unstable as those of the deserts of Arabia. The parish of Fyvie, in the county of Aberdeen, is now reduced to two farms. Not a vestige is to be seen of any buildings, unless a fragment of the church. The estate of Coubin, near Forres, is another melancholy instance. This tract was once worth £300 a-year, at this time overwhelmed with sand. This distress was brought on about 100 years ago, and was occasioned by the cutting down some trees, and pulling up the bent-star which grew on the sand hills; which at last gave rise to the act of 15 Geo. II. c. 33, to prohibit the destruction of this useful plant. The Dutch perhaps owe the existence of part at least of their country to the sowing of it on the mobile solum, their sand banks. Mr. Stillingfleet recommended the sowing of this plant on the sandy wilds of Norfolk, that its matted roots might prevent the deluges of sand which that country experiences. It has been already remarked that, wheresoever this plant grows, the salutary effects are soon observed to follow. A single plant will fix the sand, and gather it into a hillock; these hillocks, by the increase of vegetation, are formed into larger, till by degrees a barrier is often made against the encroachments of the sea; and might as often prove preventative of the calamity in question. The plant grows in most places near the sea, and is known to the highlanders by the name of *murah*; to the English by that of bent-star, matgrass, or marram. Linnæus calls it *arundo arenaria*. The Dutch call it *helm*. This plant has stiff and sharp-pointed leaves, growing like a rush, a foot and a half long: the roots both creep and penetrate deeply into their sandy beds: the stalk bears an ear five or six inches long, not unlike rye; the seeds are small, brown, and roundish. By good fortune, as old Gerard observes, no cattle will eat or touch this vegetable, allotted for other purposes, subservient to the use of mankind.'

SAND BOX TREE. See HURA.

SANDA, or SANDAY, one of the Orkneys, twelve miles long, and from one to three broad. Its form is irregular, it is separated from Stron-say on the south by a channel three miles broad; from Eda, or Eday, on the west by a channel of one mile and a half broad; and from north Ronaldshay on the north by a channel of from one to two leagues and a half. The surface is flat, particularly on the east coast, which renders it subject to inundations during the spring tides, accompanied with an east wind. The soil is mixed with sand, but produces good crops, when well manured with sea-ware; which abounds on the coast, and is made into kelp in greater quantity than in any other island in Orkney.

SAN'DAL, *n. s.* Fr. *sandale*; Lat. *sandalium*. A loose shoe.

Thus sung the uncouth swain to the oaks and rills,
While still the morn went out with *sandals* grey.

Milton.

From his robe
Flows light ineffable: his harp, his quiver,
And Lycian bow are gold: with golden sandals
His feet are shod. *Prior.*

The sandals of celestial mold,
Fledged with ambrosial plumes, and rich with gold,
Surround her feet. *Pope's Odyssey.*

The SANDAL, in antiquity, was a rich kind of slipper worn on the feet by the Greeks and Romans, made of gold, silk, or other precious stuff; consisting of a sole, with a hollow at one extreme to embrace the ankle, but leaving the upper part of the foot bare. It was fastened on with leather strings, which crossed several times round the lower part of the leg. Besides these sandals, the ancients used also other coverings for the feet, which, like those of our own day, left no part bare. Those, indeed, often ascended as high as the ankle, and even the calf of the leg. The proper term given by the Romans to this latter article of dress was calceus. These were, however, generally regarded as troublesome and uneasy. The wearers took care to provide them of leather extremely supple, which was termed aluta, derivative of alumen, alum, that substance being employed to produce the requisite softness. The Roman matrons, when assembled on occasions of solemnity, wore the alutæ of white leather: the courtizans, on the other hand, preferred the sandal, of elegant shape and handsomely embroidered, this not hiding at all the shape of a pretty foot. For this reason, Ovid, in his Art of Love, counsels these amiable fair to conceal their feet, if ill formed, in an aluta of dazzling white.

SANDAL is also used for a shoe or slipper worn by the pope and other Romish prelates when they officiate. It is also the name of a sort of slipper worn by several congregations of reformed monks. This last consists of no more than a mere leathern sole, fastened with latches or buckles, all the rest of the foot being left bare. The capuchins wear sandals; the recollets, clogs; the former are of leather, and the latter of wood.

SANDARACH GUM is a dry and hard resin, usually met with in loose granules, of the size of a pea or a horse-bean, of a pale whitish yellow color, transparent, and of a resinous smell, brittle, very inflammable, of an acrid and aromatic taste, and diffusing a very pleasant smell when burning. Sandarach is esteemed good in diarrhæas and in hæmorrhagies. The varnish-makers make a kind of varnish of it, by dissolving it in oil of turpentine or linseed, or in spirit of wine. That gum sandarach is only produced from a species of juniper was long a very common opinion; but it appears to be a mistake. The juniperus communis, from which many have derived this gum, does not grow in Africa; and sandarach seems to belong exclusively to that part of the world. The gum sandarach of our shops is brought from the southern provinces of Morocco. The tree which produces it is a Thuaia, found also by M. Vahl in Tunis. It was made known several years ago by Dr. Shaw, who named it *Cypressus fructu quadrivalvi, Equiseti instar articulatis*: but neither of these learned men was acquainted with

the economical use of this tree; probably because, being not common in the northern part of Barbary, the inhabitants find little advantage in collecting the resin which exudes from it. M. Schousboe, who saw the species of thuaia in question, says that it does not rise to more than twenty or thirty feet at most, and that the diameter of its trunk does not exceed ten or twelve inches. It distinguishes itself on the first view, from the two other species of the same genus cultivated in gardens, by having a very distinct trunk, and the figure of a real tree; whereas in the latter the branches rise from the root, which gives them the appearance rather of bushes. Its branches are also more articulated and brittle. Its flowers, which are not very apparent, show themselves in April; and the fruits, which are of a spherical form, ripen in September. When a branch of this tree is held to the light, it appears to be interspersed with a number of transparent vesicles which contain the resin. When these vesicles burst, in the summer months, a resinous juice exudes from the trunk and branches, as is the case in other coniferous trees. This resin is the sandarach, which is collected by the inhabitants of the country, and carried to the ports, from which it is transported to Europe. It is employed in making some kinds of sealing wax, and in different sorts of varnish.

SANDEC, one of the eighteen circles or districts of Austrian Galicia. It lies in the south-west of the province, on the borders of Hungary, and is watered by the Donajetz and the Poprad, the latter being the only river common to Galicia and Hungary. It is of irregular form, and contains 1400 square miles, with 195,000 inhabitants.

SANDEMAN (Robert), was born at Perth in 1723, and educated at the university of St. Andrew's. Becoming a member of the society of Independents, he in 1757 published a work entitled, *Letters on Theron and Aspasio*, 2 vols. 8vo., in which he attacked the Rev. James Hervey, author of *Theron and Aspasio*, in the most severe terms, and analysed all the most popular doctrines advanced in that work, with the most satirical criticism. Mr. Sandeman in 1766 went over to America, where a meeting was erected for him; but preaching the doctrine of 'submission to the powers that be,' this did not suit the spirit of resistance to British taxation which was then becoming daily more popular in the American colonies. He died in New England in 1772.

SANDEMANIANS, a sect of Independents, so named from the preceding writer. In Scotland they are called Glassites, from their founder Mr. John Glas, who was a minister of the established church in that kingdom; but, being charged with a design of subverting the national covenant, and sapping the foundation of all national establishments by the kirk judicatory, was expelled by the synod from the church of Scotland. His sentiments are fully explained in a tract published at that time, entitled *The Testimony of the King of Martyrs*, and preserved in the first volume of his works. In consequence of Mr. Glas's deposition, in 1728, his adherents formed themselves into churches, conformable in their institution and discipline to what they

apprehended to be the plan of the first churches recorded in the New Testament. And the peculiar doctrine maintained by them may be learned from the works of Mr. John Glas, and from Mr. Robert Sandeman's Letters to Mr. Hervey, in which he endeavours to show that his notion of faith is contradictory to the Scripture account of it, and could only serve to lead men, professedly holding the doctrines commonly called Calvinistic, to establish their own righteousness upon their frames, inward feelings, and various acts of faith. In these letters Mr. Sandeman attempts to prove that faith is neither more nor less than a simple assent to the divine testimony concerning Jesus Christ recorded in the New Testament; and he maintains that the word faith, or belief, is constantly used by the apostles to signify what is denoted by it in common discourse, viz. a persuasion of the truth of any proposition; and that there is no difference between believing any common testimony and believing the apostolic testimony, except that which results from the nature of the testimony itself. This led the way to a controversy among those who were called Calvinists, concerning the nature of justifying faith; and those who adopted Mr. Sandeman's notion of it, and who received the denomination of Sandemanians, formed themselves into church order, in strict fellowship with the Independent churches in Scotland, but holding no kind of communion with other churches. The chief points in which this sect differs from other Christians are their weekly administration of the Lord's Supper: their love-feasts, of which every member is not only allowed but required to partake, and which consist of their dining together at each other's houses, in the interval between the morning and afternoon service; their kiss of charity used on this occasion at the admission of a new member and at other times, when they deem it to be necessary or proper; their weekly collection before the Lord's Supper, for the support of the poor, and defraying other expenses; mutual exhortation; abstinence from blood and things strangled; washing each other's feet, the precept concerning which, as well as other precepts, they understand literally; community of goods, so far as that every one is to consider all that he has in his possession and power as liable to the calls of the poor and the church; and the unlawfulness of laying up treasures on earth, by setting them apart for any distant, future, and uncertain use. They allow of public and private diversions, so far as they are not connected with circumstances really sinful; but, apprehending a lot to be sacred, disapprove of playing at cards, dice, &c. They maintain a plurality of elders, pastors, or bishops, in each church; and the necessity of the presence of two elders in every act of discipline, and at the administration of the Lord's Supper. In the choice of these elders second marriages disqualify for the office; and they are ordained by prayer and fasting, imposition of hands, and giving the right hand of fellowship. In their discipline they are strict and severe; and think themselves obliged to separate from the communion and worship of all such religious societies as appear to them

not to profess the simple truth for their only ground of hope, and who do not walk in obedience to it.

SAN'DERLING, *n. s.* Of uncertain origin
A bird.

We reckon coots, *sanderlings*, *pewets*, and *mews*.
Carew.

SAN'DERS, *n. s.* Lat. *santalum*. A kind of Indian wood.

Aromatize it with *sanders*. *Wiseman's Surgery.*

SANDERS, or SAUNDERS, in botany. See PTEROCARPUS, and SANTALUM.

SANDERS (Robert), a Scottish author, born near Breadalbane, in 1727. He went to London, and compiled, partly from his own survey and partly from books, a work entitled *The Complete English Traveller*, in folio. He next compiled *The Newgate Calendar*. He afterwards became amanuensis to lord Lyttleton; and Dr. Johnson mentions that he was in his lordship's employment when he wrote his *History of Henry II.* But of all his writings, that which made most noise was his *Gaffer Graybeard*, an illiberal work, in 4 vols. 12mo., in which the most eminent dissenting ministers of the age were treated with very little ceremony. He died in 1783.

SANDERSON (Robert), F.R.S., a learned and laborious antiquary, who was usher of the court of chancery, and clerk of the chapel of the rolls. He assisted Mr. Ryder in publishing his valuable work entitled *Fœdera*; and continued it after his death; beginning with the sixteenth volume, the title of which says, *Ex sehedis Thomæ Rymer, potissimum editit Robertus Sanderson, 1715*; and ending with the twentieth, August 21st, 1735. He died December 25th, 1741.

SANDEVER, *n. s.* Fr. *suindever*. Defined below.

That which our English classmen call *sandver*, and the French, of whom probably the name was borrowed, *suindever*, is that recement that is made when the materials of glass, namely, sand, and a fixt lixiviate alkali, having been first baked together, and kept long in fusion, the mixture casts up the superfluous salt, which the workmen afterwards take off with ladles, and lay by as little worth. *Boyle.*

SANDING ISLES, Pulo Sanding, or Sandiang, two small islands off the south-west coast of Sumatra, near the south-eastern extremity of the Nassau or Pogy Isles, in which group they are sometimes included. They are inhabited, and only remarkable for the production of the long nutmeg, which grows wild; and some good timber, particularly of the kind known by the name of marbau. An officer and a few men were landed here in 1769, with a view to the establishment of a settlement, but the scheme was subsequently abandoned.

SANDIVER, a whitish salt, continually cast up from the metal, as it is called, whereof glass is made; and, swimming on its surface, is skimmed off. Sandiver is also plentifully thrown out in the eruptions of volcanoes; some is of a fine white, and others tinged bluish or yellowish.

SANDIUS (Christopher), a celebrated Socinian writer, born at Königsberg, in Prussia, in 1464. He wrote *Nucleus Historiæ Ecclesiasticæ*, and various other works in favor of his opinions, and died at Amsterdam, in 1680.

SANDOMIR, a palatinate or province of the new kingdom of Poland. It is bounded on one part by the Vistula, on another by the Pilica; the rest of the boundary is formed by the palatinate of Cracow. Its area is about 4700 square miles, with 448,000 inhabitants. It abounds in wood, and has several sandy tracks and marshes, but in general is of great fertility, and wants only a skilful and efficient cultivation to render it flourishing. This palatinate has a greater variety of minerals than is common in Poland. Sandomir was also the name of a palatinate in the old kingdom of Poland. It was of considerable extent, but in 1772 the part to the right of the Vistula was ceded to Austria.

SANDOMIR, a town in the south of Poland, on the Vistula, opposite to the influx of the San, and the chief place of the foregoing palatinate. In a remote age this was the residence of the court. At present it is a poor place, and the houses built of wood.

SANDORICUM, in botany, a genus of the monogynia order, and decandria class of plants; natural order twenty-third, trihillatæ: CAL. quinque-dentate; petals five, and linear shaped; nectarium having ten dentæ, on which the antheræ grow; the fruit is a drupa, and five in number, each of which has one seed. There is only one species, viz.

S. Indicum, a native of Africa and the East Indies.

SANDRAT (Joachim), a celebrated German painter and author, born at Frankfort, in 1606. He was early sent to a grammar school, but, showing an inclination for engraving, he was allowed to follow his own wishes. He went on foot to Prague, and placed himself with Giles Sadler, a celebrated engraver, who advised him to study painting. He accordingly went to Utrecht, and studied under Gerard Houtorst, who took him to England, where he staid till 1627. He then went to Venice, where he copied the paintings of Titian and Paul Veronese; and thence went to Rome, where he became eminent. He then went to Naples, and thence to Sicily and Malta, and through Lombardy to Frankfort, where he married. The manor of Stokau having fallen to him, he repaired it at a great expense, but had hardly got it finished, when it was burnt by the French. Upon their retreat, he rebuilt it in a better style than ever; but, on the rumor of a second invasion, sold it, and settled in Augsburg; which, on his wife's death, he left, and went to Nuremberg, where he set up an academy of painting. Here he also published several volumes on subjects relating to his profession; the most esteemed of which is, *The Lives of the Painters, with their Effigies*; being an abridgment of the biographical works of Vasari, Ridolfi, and Van Mander. He painted till he was seventy years of age, and died in 1683, aged seventy-seven.

SANDROCOTTUS, an Indian of mean birth, contemporary with Alexander the Great, who, from the prodigy of a lion once licking the sweat from his brow as he was sleeping, prognosticated future greatness to himself. For impertinence to Alexander, he had been ordered out of his presence, but, on the death of that conqueror,

he actually made himself master of a part of the country in the hands of Seleucus.

SANDSTONE, in mineralogy. See **MINERALOGY**.

SANDWICH, a borough, cinque port, and market-town in Eastrv hundred, Kent, sixty-eight miles east by south of London. It contains three parish churches, and was, previous to the blocking up of its harbour by the sand, a place of considerable importance. It was walled and surrounded by a ditch, and was considered in ancient times a place of great strength. The town is irregularly built, standing on the bank of the river Stowe; the streets are narrow and incommodious; the principal manufactures are those of ropemaking and shipbuilding. The exports of Sandwich are grain, flour, seeds, hops, wool, malt, and leather. The town is governed by a mayor, recorder, twelve jurats, and twenty-four common councilmen, and being the principal cinque-port, the mayor carries a black knotted staff, whilst the other cinque-ports are only allowed white ones. The members belonging to Sandwich are Fordwich, Deal, Ramsgate, Reculver, Sarre, Stoner, and Walmer. It sends two members to parliament, who are returned by the corporation and freemen, and it also gives the title of earl to the family of Montagu. There is an hospital for six poor men and as many women, and another for twelve men, dedicated to St. Thomas; also two good charity-schools. In the town-hall is the council chamber and court-hall, in which half-yearly sessions are held. Market on Saturday.

SANDWICH, an island of the Eastern seas, opposite New Ireland. It is rather low, and covered with trees. Long. of the most westerly point, $50^{\circ} 54' 15''$ E., lat. $2^{\circ} 59' 26''$ S.

SANDWICH ISLANDS, an interesting group of islands, consisting of eleven islands, discovered by captain James Cook in the beginning of the year 1778, lying between the parallels of $18^{\circ} 54'$ and $22^{\circ} 15' N.$, and extending in longitude from the meridian of $154^{\circ} 54'$ to $160^{\circ} 24' W.$ They are called by the natives Owhyee (Hawaii), Mowee (Maui), Ranai (Lanai), Morotinnee (Molokina), Kahowrowee (Kahaurai), Morotoi (Molokai), Woahoo (Oahu), Atooi (Kauai), Oneehou (Niihau), Oreehoua (Lihau or Liihau), Tahoorā (Kahura).

Hawaii, the easternmost, and by far the largest of these islands, is of a triangular shape, and nearly equilateral. The angular points make the north-east and southern extremities. Its greatest length, which lies in a direction nearly north and south, is eighty-four miles and a half; its breadth seventy-two miles; and it is about 293 miles in circumference. Of the six large districts into which this island is divided, Ehidu is the most healthful and fertile. The chiefs at Oahu generally speak of its exuberance and beauty with the liveliest expressions of recollected pleasure, since Hawaii is the birth-place and cradle of sovereignty. A great part of the coast presents only a few trees growing out of the mouldering remains of volcanic eruptions, and shapeless slags of lava; but, after ascending a few hundred feet, the traveller finds himself shrouded in a cloud, and amid the soft verdure

of a most luxuriant vegetation. The black cattle, which were introduced by the circumnavigator, have multiplied exceedingly; and there is reason to believe, from the accounts given by the natives who have penetrated into the central parts of the country, that its recesses contain a store of vegetables to reward the pains, and inform the understanding, of the laborious and enlightened botanist. Mauna Roa, or the great mountain, is estimated to be nearly 16,000 feet high; a volcanic mountain, once the source of superstitious fears and the engine of priestly bondage, as it is now the wonder of all who visit Hawaii, and the wished-for bower of their toil and travail.

Maui lies at the distance of twenty-four miles N. N. E. from Hawaii, and is 140 geographical miles in circumference. A low isthmus divides it into two circular peninsulas, of which that to the east is called Oamadua, and is double the size of the eastern peninsula called Wailukee. Its mountains are so high that, by an optical illusion, their summits appear like hills resting upon the clouds. Lihaua, the residence of the princess Nahienaena, and of her missionary tutors, presents a very beautiful landscape when viewed from the sea, but disappoints the spectator as he approaches the landing place, for want of a green carpet to conceal the disagreeableness of a dirty red soil. Captain King remarks that 'this pleasant scene was shortly changed on advancing a few miles to the westward. The face of the country became totally different, the shores and sides of the hills had no indications of being inhabited, and were almost destitute of vegetable productions.' 'There appeared to be a rude mass of naked, barren rocks, broken into deep gulleys, that extended from the mountains to the sea-side.'—Vancouver.

Lanai is about nine miles distant from Maui, and lies to the south-west of the passage between these islands. The country, to the south, is high and craggy, but the other parts of the islands present a better prospect.

Oahu lies to the north-west of Molokai, at the distance of about seven leagues, and is computed to be about forty miles long, and somewhat less than eight in width. The highest mountain is conjectured to be about 4000 feet in height, and was first ascended by the writer of this paper in company with several natives and two of the mission family. The natives mocked their dread of a monstrous mou or lizard, which superstitious awe had created and endowed with supernatural attributes, by charging themselves with the load of warlike weapons; and after mou's ascent invoked his fancied godship in tones of defiance. The deep recesses of the mountains are rich in the varied produce of stately trees and other vegetable curiosities. A wide extended plain, called the wilderness of Weuroa, runs obliquely across the island, and is at least 300 feet above the level of the sea. Its fertility might, by industrious means, be turned to a good account. Between Kahaurai and Maui lies the small uninhabited island of Molokina.

Molokai is only seven miles and a half from Maui, to the north-west; very barren, and nearly without wood.

Kauai lies to the north-west of Oahu, and is

distant from it about eighty-one miles. The face of the country to the north-east and north-west is broken and rugged, but to the south it is more even; the hills rise in a gentle slope from the sea side, and at some distance back are covered with wood.

Niihau lies fifteen miles to the westward of Tauai. The eastern coast is high, and rises abruptly from the sea; but the rest of the island consists of low ground, excepting a cliff on the south-east point. This island produces the best kind of yams that are to be obtained among the islands, and the *dracaena terminalis*, or tea-root (*kii*), which yields, by boiling, a luscious juice resembling molasses.

Lihaua, separated from Niihau by a channel about a mile in breadth, is of very small extent, and entirely composed of one barren rock, to all appearance destitute of soil, and presenting no indication of ever having been by choice the residence of human creatures.

Kahura is a low sandy island, and visited only for the purpose of catching turtle and sea-fowls.

The island of Hawaii was on the 25th of February, 1794, ceded to Great Britain by Tamaahamaah, or, according to the present orthography, Kamehameha, the king of Hawaii, who by right of conquest became afterwards supreme governor of all the islands, and hence it is evident that all the Sandwich Islands are, both by discovery and cession, the property of Great Britain. This is now the more to be insisted upon, because the American government, presuming that the islands were autocratical, empowered captain Jones, the Peacock, to negotiate a treaty of neutrality with the natives, in which it was, among other things, stipulated that, in the case of a war between Great Britain and America, any ship should be indemnified by taking shelter in any of the ports of the Hawaiian Islands. This treaty was in a very clandestine manner brought about through the ministry of some of the American missionaries, who in this instance seem to have forgotten the nature of their high calling, and humbled themselves to become the instruments of a secular, and not very honest, policy. A desire to blot out the remembrance of the generosity of Great Britain, by razing the memorials of her good deeds done to the islanders, gave occasion, as the writer has reason to believe, to the following otherwise unaccountable transaction, of which he was an eyewitness:—Returning one evening from the consul's house to his rooms at Whitehall, the former residence of the late prime minister Karaimoku (shortly after the orders of the late king and queen of these islands had arrived), he was surprised to see all the principal chiefs of the neighbouring islands assembled round the door of the sepulchre which had been reared for the reception of the coffins; and yet more astonished on entering to behold one of the coffins just about to be lowered down into a grave prepared for that purpose. His presence was immediately announced by murmurs of the foreigner (*ta haure*), and they listened with submission to his admonition, that charged them with an unaccountable piece of ungrateful conduct in removing these great pledges of king George's love, which, in the sen-

timents of these islanders, are always accounted sacred. After some consultation the queen, calling me aside, requested that I would go and ask the concurrence of Karaimoku, the dying minister, who, in the laconic style of authority, said, 'It is enough.' The design was immediately dropped, and the dead suffered to sleep in peace.

The face of things since the time of Cook has been completely changed, the cloak of vermilion-tinted feathers once worn by the chieftains has been exchanged for a guise of European fashion, and the plummy sceptre, or kahahe, which was wont to precede persons of distinction, is now displaced by some foreign badge of rank and office. Instead of the thrilling sound produced by the combination of various rhythmical instruments, played in measured cadence to the movements of a dance which was led in honor of some tutelary divinity, you hear the curious recitative of numerous scholars chanting their lessons, as they are taught to combine the flowing sounds of their native language into words and sentences. Nor has the outward garb alone undergone a great change since that period, if we may judge of the present generation by comparing them with a few old men who are the survivors of the last; for there has been a great falling off in mental activity and manly fortitude. An observer discovers a certain nobility of disposition indicated by the carriage of the elder race, and a certain frankness of humor, of which he cannot discern the slightest symptoms in their drowsy-headed offspring who crowd the courts and dwellings of the chiefs. In the room of engaging in those sports and gymnastic exercises which were once the favorite amusements of his forefathers, a native, when he has finished the task which necessity imposes on him, betakes himself to his mat, and solaces his cares by reciting a psalm or portion of sacred scripture, which the industrious missionary has clothed in the mother dialect of his willing convert.

An islander looks forward to the time of a special assembly and examination of the schools as to a day of general festivity, while all his thoughts are taken up in providing the best apparel for the occasion, and in repeating his lessons that he may merit the public applause of the chiefs and missionaries. The extraordinary fondness which these people exhibit for reading seems to be a phenomenon in the human mind; since, from the scantiness of translated matter, the same lesson is necessarily repeated many thousand times during the days of preparation preceding these general meetings: and the intellectual gratifications required must therefore, on every view of the subject, be but 'a vanishing quantity.' The allotted hours of labor, the proportional mean between the longest and shortest spaces of daylight, are not thought sufficient for the praxis of their palapala or reading, but in these seasons they borrow freely of the night, so that, when fever and pain have kept the writer waking, he has often heard, during the silent watches of midnight, the disjointed sounds of murmuring voices. This may however be explained by having recourse to the superior principle, that occupation is as necessary to the health of the mind, as the stimulus of the non-

naturals is to that of the body, and hence we see one reason why a preference is given to an exercise that demands so few of our physical energies.

The *government* is at present monarchical, and was at a late period administered by Kahamanu, the favorite queen dowager of Tamelameha, at whose nod all the chiefs and subordinate governors tremble. 'All the land is said to be held in fee by the king or queen regent, who can take away or bestow it at their pleasure. The aristocratic part of the community let their lands by a kind of feudal tenure, which obliges the tenant to render allegiance to his landlord; and, in time of battle, to repair to his standard; who, besides receiving the customary rentage of half the produce, seldom scruples to take the fattest of his swine, and the choicest part of his crop. To remove this great discouragement to industry, some laws to secure the enjoyment of property are highly necessary. To aggravate their miseries, a law was passed some years ago obliging every man to dispose of this abundance to foreign ships, &c., by bringing it to the public market, where, besides paying the clerk, he was compelled to surrender half the price to the king; but this severe imposition was at the recommendation of the English consul taken off; and, by the abolition of interdiction and various species of tyranny, they begin to realize some of the advantages of freedom. We have often admired the silence and promptitude with which the orders of the queen were executed; the minister who has any particular part of her property in charge, or whose business it is to fill any office of government, seldom requires more than the silent expression of the countenance to interpret the will of his mistress.

They all acknowledge the supremacy of the English government, and are impatiently waiting for its interposition and advice in framing a few laws or maxims for adjusting their disordered state of affairs. Though there are differences of opinion as to what rules they ought to be governed by, and some complaints of the great austerity of the missionary discipline, yet there is not the slightest symptom of disturbance. The common people have sold and forgotten the use of their native arms; and the ambition of ruling over others is displaced by the desire of appearing more learned, more religious, and better habited, than their fellow creatures.

In order to train and bring under subjection the humors of the younger people, an absolute authority over them seems necessary. For where diet, lodging, and climate tend to foster the concupiscible part of our nature, and the restraints of legal enactments, custom and example are scarcely felt; the cordial draught, mingled by Circe for the unwary, becomes far more tasteful, and its draught attended with less remorse than in societies where legislation and the judgment of civil courts provide pains and penalties for transgressors. If we regard individual depravity, the Sandwich islander will appear to advantage over many civilized nations; but, to institute a just comparison, we must consider him in a state of society wherein he will come very short of an equality with most, there being

little of what Tully calls *communitas*, in which condition each individual member contributes his quota of benefits, that he may be a joint partaker in the common stock of happiness.

The counterpart of the sirens, fabled in ancient story, who have been deemed by some to exist only in the imagination of poets, may be found at Oahu, who win not by a voice tuned to enchant by melodious warbling, but by the far more powerful spell of female suasion, that—

*Ὅστις ἀδρεψή πελάσει καὶ φθογγῶν ἀκούσει
Σειρήνων τῷ ὄντι κυνή, καὶ νήπια τέκνα
Οὐκ αἶψά νοστήσαντι παρίσταται, ὅνδε γαννύται.*

He who was so void of understanding as to listen to the pleasing sorcery of their enticements never after felt any longings after the blandishments of home, nor the fond caresses of his wife and children. And it is no uncommon thing to witness a youth of respectable parentage and hopeful parts, allured, on his first visit to Oahu, into the vortex of sensual delights, and, after reeling a few years in dizzy dissipation, snatched away by a fit of apoplexy, unless he be removed from inevitable ruin by some forceful interposition. One would not be inclined to predict that a gentleman, who had been fostered in the bosom of society, could prefer a life at Oahu, where there are none of those things which we significantly call comforts, to his maternal hearth, where they come unbought and unasked for. But we have seen instances in which all the advantages and all the charities of life were exchanged for a pleasing companion and the delicious liberty of Honolulu. We have adverted to this effect upon the minds of foreigners by way of extenuating, if it can be admitted as an extenuation, the licentious habits of a great proportion of the natives, and to give the reader some perception of the baits which pleasure holds out in a place wherein a stranger, at the first glance, would not expect to find such a profusion of her dainties.

Few encomiums can be justly bestowed upon the moral rectitude and integrity of their minds, but in spite of degeneracy there have been many, and still are a few remaining, who in this respect might be patterns for people of a better education. The frequent examples of falsehood and covenant-breaking arise not altogether from a malignity of nature, but in some measure from the want of a customary or intuitive discrimination of right and wrong, and of consequence the selfish passions, receiving little or no check from enlightened reason, are allowed to gain the ascendant; and hence, unless profit be in the prospective, a benefit seldom finds a counterpart in the mutual good offices of friendly intercourse. To make a native a present in order to entice him to engage in any work of utility would be the most effectual way to baffle the hopes of performance; and we have been taught by experience the necessity of deliberating when about to recompense a servant for his services, whether we could dispense with his attendance for several days; for no sooner was he in possession of the reward than he presently disappeared to enjoy it. There is radically in their disposition a certain waywardness and inclination to play the truant, the growth of a long-enjoyed free-

dom from established rules of action, which order to render them capable of discharging those duties which devolve upon us from the relations of civil and social life, must be cured; and this cannot be done by any foreigner, whether priest or layman, without the coercive authority of some superior chief exerting itself in pursuing the runaways to their hiding places, and bringing them back to their fancied hard bondage. All the experiments we have seen tried or heard related frustrated the exertions of their foster parents, except on one who was a girl, confided to the care of a respectable missionary by a chief woman of Hawaii, who, as often as the maiden eloped from confinement despatched her people in all directions to find out the place of her concealment. The damsel did not, as might have been expected, retain any resentment, but required their pains by waiting on her sick master and mistress unaided, with the most diligent and loving attention. In the summer of 1827, when we visited the family, the little maid was still living with them, and appeared an emblem of good nature and assiduity. We notice this fact, because, while it illustrates their native disposition, it encourages the philanthropist to hope that if the same discipline, grievous indeed for a time to the child, could be made use of, many who, without education would be given up to lasciviousness, might by timely interposition be retrieved and made to fulfil with applause those duties which heaven has ordained for our general benefit.

There is one thing, independent of a genial climate, which tends to encourage the promiscuous intercourse of the sexes, namely, on particular occasions the herding together of many hundreds of both sexes within the confines of one apartment or dwelling-house, who, during the time of repose, when they are extended or rather strewed upon the matting, adjust themselves so as mutually to serve as pillows for each other, and by their numerous intersections form such a species of network as a traveller is seldom indulged with a sight of. Besides there is a certain roving propensity among the better sort, especially derived from an old custom of sojourning but a short season in any province or island and this practice was, anterior to the port town of Honolulu becoming the emporium of the whole group of islands, so prevalent, that these successive pilgrimages answered the purpose of a sort of memorial notation for measuring the time elapsed since the happening of any important event. But since it is not practicable to come at all the foreign commodities in so expeditious a manner as at Honolulu, the chiefs who reside there content themselves by indulging this hereditary propensity to peregrinations on a smaller scale, and with removing to houses newly erected by themselves or their friends and equals, and hence the privileges of the host or hostess being in no respect different from those of the guests, a stranger, on his first visit, finds it difficult to distinguish the occasional inmates from the original proprietor of the tenement. We have been told that Tanahameha, who subjugated all the islands to the yoke of Hawaii, being aware of this disposition of his subjects, when he had built a

house, levied the toll of a crown upon every chief and commoner who came to visit him in his new residence; but such is the excess of this peculiar species of curiosity and fondness for novelty, that I never heard but that this exaction was cheerfully paid, though money was not at that time very plentiful among them. In their intellectual character they sometimes evince a degree of shrewdness for which an observer, from a contemplation of some parts of their mental exertion, would not antecedently be inclined to give them credit; to mention an instance or two which fell under my own notice:—While a numerous circle of natives, whom, at the writer's departure, he for the first time admitted into his room, were offering various articles of native art for sale to one of his brother officers, he remarked to him that a fisherman was exhorting one with whom he was in treaty not to lower his demands; but the former, guessing the nature of our communication, very gravely told the writer that as his conversation was addressed to another he had no business to apply or hear any part of it. A person who was steward of all the sandal-wood exported from Oahu was accused of embezzling his master's property; the chief, after reflecting a few minutes, said, in reply, 'I know that this man robs me, but he will not allow another to do so; now I know, if I trust you, that you will not only rob me yourself, but suffer others to do it.' Nothing can be more complete than the dominion which the Christians have obtained over their minds, nor any thing surpass the eagerness which they evince to be better acquainted with the statutes and ordinances of Holy Writ.

The American missionaries, who have been chiefly instrumental in changing the features of these islands, are, in the relative sense of language, men of unblemished moral character, notwithstanding the strange load of calumnies and obloquy which has been cast upon them by their adversaries; for none of the many grievous charges which they had brought against the missionaries could be made good when they were convened in a public manner for the specific purpose of finding them guilty; and so little foundation had their railings in truth and verity that they speedily dropped the cause, and were fain to change sides with the defendants. The capital offence which the missionaries have given to the residents and visitors is by instigating the chiefs to prevent the intercourse of the unmarried women with foreign suitors, by prohibiting their going on board the vessels. The moral character of the missionary is not to be impeached because an enlightened judgment does not always lead him to frame the best schemes and adopt the most eligible methods for gaining his purpose. Men of no great learning, and less acquaintance with secular matters, often endeavour to make the general rule efficient without taking into the account those corrections which the various modifications to which it is subjected when put in practice might seem to require. The logic of the missionary teaches him to argue thus:—'Hath not the Scripture said it, and shall men presume to add to or take from that book?' No: but a divine command-

ment sometimes resolves itself into one or a more general influence; as, for example, that of keeping the sabbath holy does into that precept to show mercy and kindness to all God's creatures. To cut off occasion for cavilling we will divest their reports of that machinery which has dignified the progressive issue of the labors, and briefly sum up the effect of their exertions, which we think every wise man will allow to be highly beneficial. They have taught the idolaters, as far as the instruments of communication assist them, the unity of the God-head, and the infinite perfection of the divine attributes, the scope and design of revelation, and the obligation of moral virtues. They have fixed the varying sounds of language in a permanent orthography, and have instructed the majority of the natives in the nature and use of these symbols, so that they can read what is written and communicate with their friends by means of letters; and, lastly, they have prevented an unspeakable deal of hard usage by reviving the primeval law which ordained that man was not only the head, but the protector of his helpmate.

There is one *phenomenon*, though familiar to all, which a traveller in ascending the mountains, if he possesses any relish for the sublime and beautiful, cannot fail to admire; this is the appearance of rainbows in arcs of various curvatures, hung as it were in the ample void of the deep valleys below him: sometimes a thread or two only of the complex twine of light curving to the sun's altitude, are spread on the bosom of a hill; at others the purpled scarf of iris, like an oblique zone, partly encircles one of the lesser mountains, and thence it comes to pass that this strange imagery, added to other entertainments of nature, beguile the mind from regarding the concerns of the body, which is toiling through black mud and drenching rains to climb the headlong ascent of some lofty eminence. In the year 1827, August 18th, when crossing the wilderness of Wairoa, we witnessed a rainbow which seemed best fitted to make the way-faring man turn aside and wonder at the bright enchantment; the primary bow appeared like a solid arch, with its two ends resting on the plain a few paces from us, and was strengthened by three supernumerary red arches of unusual splendor; the secondary bow was not complete, but had one supernumerary arch. This glorious apparition appeared to a lively imagination calculated to afford a glimpse at a similitude of those transcendent spectacles described by St. John and the prophet Ezekiel.

The frequent showers which fall in the higher parts of this island are to be ascribed to the trade wind, which brings along with it a mass of vapors. These being impelled by the current of air are, in order to surmount the obstruction of the interposing ridges, obliged to ascend into a region of less relative heat and density, where the atmosphere, being unable to hold the vapory particles any longer in solution, sheds them upon the brows of the highest mountains.

Diet.—The vegetable called *po* may be justly said to be the staff of life, and to answer the purpose of bread among us. This is made by first roasting and then macerating

the roots of the taro till they can be reduced by kneading and the gradual admixture of water to a pulpy solution, which, after it has remained in calabashes a few hours to acquire of fermentation a slight degree of acidity either with or without a little animal food, forms the stay of a Sandwich islander's diet. The nauseous custom of eating dogs is very much tempered in the imagination by observing in what manner the animal is nurtured, that it never goes abroad without being carried, and that it eats of the same morsel and drinks out of the same cup as its mistress. The flesh is thus rendered more wholesome and palatable than that of the swine, whose feeding is not half so delicate. Modern cookery has not devised a method more simple or more effectual for dressing meat, without hardening the muscular fibre or dissipating the savory juices, than the custom used from time immemorial of wrapping up the flesh in the succulent leaves of the taro, and submitting it to the action of heated stones in an oven hollowed out of the ground. This viand, when served up with the vegetable sauces, is called luau.

We may specify the following as the principal productions of these islands:—1. Ohia, *metrosideros*, a species in which this country is comparatively rich, are distinguished by some adjunctive epithet importing their respective uses or properties. 2. Ohia-ai, or edible ohia, which, instead of the capsules borne by the rest of the genus, yields a pear-shaped fruit of a very mild and juicy nature. This is a tree of peculiar beauty and stateliness, and the large dark green leaves are strikingly set off by the bunches of red flowers which are followed by clusters of fruit-garnishing the lower part of the branches in rosy profusion. 3. Pilo, a species of *capparis*, bearing a large white flower singly from the bosoms of alternate, smooth, elliptical leaves, and an oblong yellow berry. 4. Limii, a general name for the submarine productions of that part of cryptogamous botany called algæ, but particularly of the various species of fucus which are made into saline pickles, and are very much relished by them; a peculiar sort called kala is the most esteemed. Every species has its appropriate name. 5. Kukui, *aleurites tribloba*, or candle-nut tree. The hoary foliage of this tree diversifies the hills with the appearance of white patches. The nuts, when divested of their integuments, were formerly set in order upon a sharp stick, and burnt in the room of candles. They also yield by expression an oil that has the practical uses of linseed oil. 6. Ko, *corelia sebastena*, a large shady tree which grows by the sea side. This genus is chiefly characterised by having a divided style, which, with its globular stigmata, resembles the figure of that kind of ancient scourge called scorpions. 7. Ko, saccharum, the sugar-cane, which grows wild on the banks of rivulets, has, by cultivation, been modified into at least twenty varieties, distinguished from one another by the color of the stem, sheath, and midrib of the leaf, and the variations of its surface. Were industry as kind to this people as nature is in the production of this plant, the making of sugar might be made a manufacture of great importance to them.

8. Ka, a species of *cyperus*, the root of which affords a gluey substance, used in glazing and scenting their native cloth. The odor is of such a narcotic nature that, if a piece of cloth treated in this way be allowed to remain in a close room, it is apt to affect the person who inhabits it with an intolerable sickness, which continues till the offensive material is removed. 9. Hapu, *cibotium chamoisai*, the ark-formed, distinguished from the *Dicksonia* by the determinate figure and cartilaginous nature of its capsules, which are a stem of that genus seated upon the margin of the frond. From a stock of about a foot high usually issue several doubly winged fronds; this is crowned with convolute bundles of brownish silk, which was formerly made into pillows and cushions. The hapu is sometimes roasted and eaten; but, from the admixture of woody matter, is not very nutritious, nor very easy of digestion.

10. Ie, climbing pandanus, the leaves at the top of the branch expand and form a cup-like receptacle for the fruit, which, by the absorption of oxygen, change to an acetous pulp. This, as well as the ripening berries, with which branched spikes are closely studded, is greedily devoured by the little birds. The stem is about an inch in diameter, sending forth many radicles, which attach themselves to, and imbibe, the juices of the larger trees, particularly the *mimosa heterophylla*, or *hoa*. The tree, being robbed of its nutriment, after a few years begins to show signs of decay, becomes stag-headed, and ultimately dies. 11. *Toa*, *mimosa heterophylla*, remarkable for the transformation of its leaves. This alienation is accounted for by supposing that the plastic substance provided by nature for the leaf is appropriated by the leaf-stalk; for, in the younger trees, it may be traced from an incipient winged expansion, till it ends in a single uniform leaf, at which time, the power of further vegetation being exhausted, the numerous leaflets, following an inverse ratio in number and size; disappear. The wood of this tree is very useful in the construction of canoes. 12. *Thi*, the *oxalis marsilea quadrifoliata*, which latter genus is characterised by having a receptacle rising from the root, and forming a box, which contains many rows of capsules, separated by the doublings of a subtile membrane. The roots of this water plant, by their mode of propagation, weave a kind of net-work, which we have seen the chief women convert into a scarf, and wear about their necks and shoulders. 13. *Oranâ*, a shrub belonging to the family of the *urticæ*, belonging to the genus *morens*, furnishes, from the woody fibres of the bark, a fine material for the making of cordage. 14. *Ahuhu*, *tephosia pircatoria*, the bark used for poisoning fish. 15. *Vthi*, a species of grasshopper roasted and eaten. 16. *Iruahi*, *somtolium* or sanders wood, an important article of commerce with China, but, like other sources of national wealth which are not the gradual result of honest industry, has, by inducing an over-confident hope in the adequacy of their means, brought upon the unwary people a huge mass of debts, of which, unless they continue to pursue the plan proposed by his Britannic majesty's consul, in erection of a poll toll they will not speedily disencumber themselves.

Pastimes.—It has been already hinted that scarcely any remnant of their elder games and exercises are now left to give the traveller some notion of past times, and hence, if a rare accident does not favor him, he must learn their nature from the relations of the old people. Pohinehine is a game of chance, wherein several folded pieces of native cloth are severally placed before each player; a man then dexterously passes his hand under every one of them, containing a stone, which is hidden beneath a different parcel each time, while each competitor in his turn strikes with a wand, at a venture, any one of them. After ten rounds, the game is decided in favor of him who has struck the lucky parcel of cloth the greatest number of times. Wawainle is a species of dichotomous, or club-mess, lycodium. Akakamoa, the denomination of a game formerly played by two chiefs, with the dichotomies of the branches mutually hooked within each other; the gamester whose fork, in pulling them asunder, first broke, lost his wager. Moko-moko, or boxing-matches, consecrated to the memory of Olono, a certain deity who was believed to have vouchsafed his presence under the form of captain Cook. The people of two neighbouring districts used to assemble on their borders when these games were about to be celebrated. A ring being formed, an athlete would, like Dares Æneid, v. 376, bare his broad shoulders, and, with uplifted arms alternately, provoke the yielding air a few moments, and then retire; one from the opposite side would follow his example; and this exhibition, by turns of the candidates for renown, continued till the eyes of some well-matched pair had singled out each other. A fall, or turning the back upon the antagonist, decided the combat.

Language.—One general language is extended over all the islands, which are comprehended under the name of Polynesia, subject to a peculiar dialectical variation in each particular group, with occasional mixture of words which, from their anomalous form, seem to have been borrowed from different sources. In the first primer that was printed by the missionaries their dialect is made to embrace seventeen elementary sounds; but, since the natives confound in their articulation the elements DTK, RL, BP, with each other, it appeared expedient to a council of missionaries, in order to prevent an embarrassing variation in the orthography of the natives, to retrench the superfluous letters, and reduce the number of simple sounds to twelve. But since the U, like W, sometimes assumes the power of a consonant, there seems to be no reason why it ought to be retained.

The orthography is precisely the same as that adopted from the Sanscrit by professor Lee in the compilation of the New Zealand grammar. The dialects of Hawaii and New Zealand differ chiefly in the presence of nasal sounds in the latter. A short acquaintance with their analogies shows how near such words as New Zealand, Tangata, and Tanata, as the word Kanaka is often heard. The vocal organs of a Sandwich islander, without long training, find it impossible to articulate the harsh combinations of consonantal sounds of our language; but his ear can nicely discrimi-

nate the appropriate sound of each vowel and diphthong. They never amalgamate two consonants, a mute and a liquid, as we do in the syllable bri in Britain, but usually insert a sheva, or short vowel sound, to soften the utterance, and pronounce that word as if it were written Perikane. The affinity of the Polynesian language with the Malayan has been pointed out by Mr. Marshman in his grammar of that tongue, and its etymological relationship to the Hebrew did not escape the notice of the propagators of the gospel; and, during the author's stay at Oahu, he observed several instances in words and phraseology. To give our readers some notion of the softness and flowing sweetness of this dialect, we will select a distich from a hymn composed by the missionaries, in which the Indians call upon their hearts to rejoice that the love of God has visited them. It is read nearly as if it were Italian:—

Ua iki mai nei ke kanawai mau
Ke hauoli nei ko kakou nau.

SANDWICH LAND, a name given by Cook to the southerly land which he discovered in the South Atlantic Ocean, otherwise called Southern Thule.

SANDY DESERT, a name given by way of eminence to an extensive tract of Hindostan, in the province of Gujerat, where the army of the celebrated Mahmoud of Ghizne was nearly lost. After the taking of the temple of Diu, in the year 1025, one of the priests offered himself as a guide to the sultan; and, having purposely led them into the heart of this desert, boasted of his success, on which he was instantly put to death.

SANDY HOOK, an island of the United States, on the coast of New Jersey, in the township of Middleton, seven miles south of Long Island, and twenty-five south of New York. It was formerly a peninsula. Sandy Hook, or Point, forms a capacious harbour, where is a light-house on the north point of the Hook, in long. 72° 2' W., lat. 40° 26' N.

SANDY LAKE, a lake of North America, near the source of the Mississippi, twenty-five miles in circumference. Of the numerous rivers running into it, one is entitled to particular attention, viz. the Savannah, which, by a portage of three miles and three quarters, communicates with the river St. Louis, which flows into the Lake Superior, at the Ford de Lac, and is the channel by which the North-west company bring all their goods for the trade of the Upper Mississippi. The rigor of the climate is extreme here. Lat. 46° 9' 20" N.

SANDY LAKE RIVER, a large but short river of the United States, which falls into the Mississippi. It connects the lake of the same name with the Mississippi, by a strait only six miles in length.

SANDY RIVER, BIG, a river of the United States, which rises in the Laurel mountains, its sources interlocking with those of the Cumberland, Clinch, Kenhaway, Kentucky, and Licking. It forms part of the boundary between Virginia and Kentucky, running N. N. W. into the Ohio, forty miles above the Scioto. It has a course of about 130 miles, and at its mouth is 200 yards wide.

SANDY RIVER, LITTLE, a river of the United States, in Kentucky, running into the Ohio, twenty miles below Big Sandy.

SANDYS (Edwin), D. D., and archbishop of York, an eminent English prelate, and zealous reformer, born at Hawkshead, in Lancashire, in 1519. He was educated at St. John's College, Cambridge, where he graduated. About 1547 he was chosen master of Catherine Hall, and, in 1553, vice-chancellor of the university. Having early embraced the Protestant religion, he, on the death of king Edward VI., zealously espoused the cause of lady Jane Gray; preached a sermon in favor of her title, and even printed it. Two days after, being ordered to proclaim queen Mary, he refused, and was thereupon deprived of all his preferments, and sent prisoner to the Tower, where he lay above seven months, and was then removed to the Marshalsea. He was afterwards liberated; but bishop Gardiner, hearing he was an incorrigible heretic, made strict search after him. The doctor escaped, however, in May 1554, to Antwerp, and thence went to Augsburg, and Strasburg, where he remained for some time. In 1558 he went to Zurich, and lodged five weeks with Peter Martyr, with whom he maintained an intimate correspondence ever after. On queen Mary's death he returned to England, January 19th, 1558-9. In March he was appointed, by queen Elizabeth, one of the nine Protestant divines to dispute with nine Roman Catholics before the parliament. He was also appointed one of the commissioners for preparing the Liturgy. He was then made bishop of Worcester, and, being well skilled in the dead languages, he was, in 1565, one of the bishops appointed to make a new translation of the Bible; and he accordingly translated the books of Kings and Chronicles. In 1570 he was appointed bishop of London, and in 1571 assistant to the archbishop of Canterbury, in the commission against papists and puritans. In 1576 he was promoted to be archbishop of York. In his zeal against the papists he was very severe. He died July 10th, 1588, aged sixty-nine. He was twice married. By his second wife Cecilia, daughter of Sir Thomas Wilford, of Hartridge, in Kent, he had seven sons and two daughters.

SANDYS (George), was born in 1577. He travelled over several parts of Europe and the east; and published an account of his journey in folio, in 1635. He made an elegant translation of Ovid's *Metamorphoses*; and composed some poetical pieces of his own, that were greatly admired. He also paraphrased the Psalms; and left behind him a Translation, with Notes, of a Sacred Drama written by Grotius, entitled *Christus Patiens*; on which, with Adamus Exul, and Masenius, was founded Lauder's impudent charge of plagiarism against Milton. See **LAUDER**. He became one of the privy chamber to Charles I., and died in 1643.

SANGALLAN, or CAPE GALLAN, the Callagan of British seamen, is situated on the coast of Peru, N. N. W. of the island of Lobos, and three miles north-west of Carcete Island. On its south side is a good harbour, frequented by the coasting ships from Panama and Lima.

SANGAY, a volcanic mountain of South America, in the province of Quixos and Macas Quito. It rises to the height of 16,122 feet, and its north side is constantly covered with snow. From its summit, flames, smoke, and calcined matter, are seen continually to burst forth, accompanied with explosions, which are heard at Quito, 135 miles distant. The country adjacent is rendered totally barren by its incessant action.

SANGARIS, or SANGARICUS, in ancient geography and mythology, a river of Phrygia rising in Mount Dindymus, and falling into the Euxine. The god of this river was fabled to have been the father of Hecuba, queen of Troy; and she became pregnant of Altes, by gathering boughs of an almond tree on its banks.

SANGIAC, in the Turkish polity, the governor of a province. Hence also the province so governed: it was particularly used in Egypt, which was divided into twenty-four sangiacs.

SANGIR, an oblong island in the eastern seas, between thirty-six and forty miles in length, and between ten and fifteen miles in breadth. It extends in a direction N. N. W., and is broadest towards the north; towards the south it has several good bays, and is said to be surrounded by forty-six smaller islands of various dimensions. The coast has better harbours, and is less dangerous from hidden rocks and shoals, than most of the eastern islands. The island is well wooded and inhabited, and affords refreshments of all kinds. Spices are also procured, with which a trade is carried on to Magindanao. The principal town and bay are about the middle of the west coast, and called Taroona, in lat. 3° 28' N., long. 125° 44' E.

SANGUIFEROUS , <i>adj.</i>	} Fr. <i>sanguin</i> ; Lat. <i>sanguifer</i> , <i>sanguis</i> . Con- veying blood : sanguification is the product n of blood : sanguifer, a producer of blood : to sangui- fery, to produce blood : sanguinary, bloody ; cruel ; murderous (always used in a bad sense) : sanguine, as a noun substantive, means blood color : as an adjective, red ; having the color of blood ; cheerful ; ardent ; abounding with blood : sanguineness and sanguinity, heat ; ardor ; con- fidence : sanguineous, constituting blood, or abounding in blood.
SANGUIFICATION , <i>n. s.</i>	
SANGUIFIER ,	
SANGUIFY , <i>v. a.</i>	
SANGUINARY , <i>adj.</i>	
SANGUINE , <i>adj.</i>	
SANGUINENESS , <i>n. s.</i>	
SANGUINITY ,	
SANGUINEOUS , <i>adj.</i>	

A griesly wound,
From which forth gushed a stream of gore, blood
thick,

That all her goodly garments stained around,
And in deep sanguine dyed the grassy ground.

Faerie Queene.

This fellow
Upbraided me about the rose I wear ;
Saying, the sanguine colour of the leaves
Did represent my master's blushing cheeks.

Shakspeare.

Rage, or phrensy, it may be, in some perhaps natural courage, or *sanguineness* of temper in others; but true valour it is not, if it knows not as well to suffer as to do. That mind is truly great, and only that which stands above the power of all extrinsic

violence; which keeps itself a distinct principality, independent upon the outward man.

Decay of Piety.

The scene is now more *sanguinary*, and fuller of actors: never was such a confused mysterious civil war as this.

Howel.

A stream of nec'trous humour issuing flowed *Sanguine.*

Milton.

At the same time I think, I command: in inferior faculties, I walk, see, hear, digest, *sanguify*, and carnify, by the power of an individual soul.

Hale.

The choleric fell short of the longevity of the *sanguine.*

Browne.

This animal of Plato containeth not only *sanguineous* and reparable particles, but is made up of veins, nerves, and arteries.

Id.

Dire Tisiphone there keeps the ward,
Girt in their *sanguine* gown.

Dryden.

Though these faults differ in their complexions as *sanguine* from melancholy, yet they are frequently united.

Government of the Tongue.

Bitters, like choler, are the best *sanguifiers*, and also the best febrifuges.

Floyer on the Humours.

Since the lungs are the chief instrument of *sanguification*, the animal that has that organ faulty can never have the vital juices, derived from the blood, in a good state.

Arbutnot.

A plethoric constitution, in which true blood abounds, is called *sanguineous.*

Id.

The fifth conjugation of the nerves is branched to the muscles of the face, particularly the cheeks, whose *sanguiferous* vessels it twists about.

Derham's Physico-Theology.

A set of *sanguine* tempers ridicule, in the number of fopperies, all such apprehensions.

Swift.

I very much distrust your *sanguinity.*

Id.

Passion transforms us into a kind of savages, and makes us brutal and *sanguinary.*

Broome.

SANGUINARIA, in botany, blood-wort, a genus of the monogynia order, and polyandria class of plants; natural order twenty-seventh, rhœadææ; cor. octopetalous: cal. diphyllous; the siliqua ovate and unilocular. There is only one species, viz.

S. Canadensis, a native of the northern parts of America, where it grows plentifully in the woods; and in spring, before the leaves of the trees come out, the surface of the ground is in many places covered with the flowers which have some resemblance to our wood anemone; but they have short naked pedicles, each supporting one flower at top. Some of these flowers will have ten or twelve petals, so that they appear to have a double range of leaves, which has occasioned their being termed double flowers; but this is only accidental, the same roots indifferent years producing different flowers. The plant will bear the open air in this country, but should be placed in a loose soil and sheltered situation, not too much exposed to the sun. It is propagated by the roots; which may be taken up and parted, in September, every other year. The Indians paint themselves yellow with the juice of these plants.

SANGUISORBA, in botany, greater wild burnet, a genus of the monogynia order, and tetrandria class of plants; natural order fifty-fourth, miscellanæ: cal. diphyllous; germen situated betwixt the calyx and corolla. The most remarkable species is—

S. officinalis, with oval spikes. This grows naturally in moist meadows in many parts of

Britain. The stalks rise from two to three feet high, branching towards the top; and are terminated by thick oval spikes of flowers of a grayish brown color, which are divided into four segments almost to the bottom. These are succeeded by four oblong cornered seeds. The leaves of this sort are composed of five or six pairs of lobes placed along a midrib, terminated by an odd one. These are heart-shaped, deeply dentated on their edges, and a little downy on their under sides. The cultivation of this plant has been greatly recommended as food to cattle.

SANHEDRIM, or **SANHEDRIN**, Heb. סנהדרין, was the name whereby the Jews called the great council of the nation, assembled in an apartment of the temple of Jerusalem, to determine the most important affairs both of their church and state. This council consisted of seventy senators. The room they met in was a rotunda, half of which was built without the temple, and half within; that is, one semicircle was within the compass of the temple, the other semicircle was without, for the senators to sit in, it being unlawful for any one to sit down in the temple. The nasi, or prince of the sanhedrim, sat upon a throne at the end of the hall, having his deputy at his right hand and his sub-deputy on his left. The other senators were ranged in order on each side. The rabbins assert that the sanhedrim has always subsisted in their nation from the time of Moses down to the destruction of the temple by the Romans. See Grotius's Commentaries, and his book *De jure Belli et Pacis*, lib. i. c. 3, art. 20, and Selden de *Synedriis veterum Hebræorum*; also Calmet's Dissertation on the Polity of the ancient Hebrews, before his Comment upon the Book of Numbers. As to the qualifications of the judges, their birth was to be untainted. They were often taken from the race of the priests or Levites, or out of the number of the inferior judges, or from the lesser sanhedrim, which consisted only of twenty-three judges. They were to be skilful in the law, traditional and written. Eunuchs were excluded from the sanhedrim, usurers, decrepit persons, players at games of chance, such as had any bodily deformities, those that had brought up pigeons to decoy others to their pigeon-houses, and those that made a gain of their fruits in the sabbatical year. Some also exclude the high-priest and the king, because of their power; but others insist that the kings always presided in the sanhedrim, while there were any kings in Israel. Lastly, the members of the sanhedrim were to be of a mature age, a handsome person, and of considerable fortune. Such at least are the requisites mentioned by the rabbins. The authority of the great sanhedrim was, according to these authors, very extensive. This council decided such causes as were brought before it by appeal from the inferior courts. The king, the high-priest, the prophets, were under its jurisdiction. If the king offended against the law, if he kept too many horses, if he hoarded up too much gold and silver, the sanhedrim, according to these rabbins, had him stripped and whipped in their presence. But whipping among the Hebrews was not ignominious; and the king is said to have borne this correction by way

of penance, and himself made choice of the person that was to exercise this discipline. The general affairs of the nation were also brought before the sanhedrin. The right of judging in capital cases belonged to this court, and this sentence could not be pronounced in any other place but in the hall called Laschat haggazith, or the hall paved with stones, supposed by some to be the *Αἰθωροστος*, or pavement, mentioned in John xix. 13. Hence the Jews were forced to quit this hall when the power of life and death was taken out of their hands, forty years before the destruction of their temple, and three years before the death of Jesus Christ. In the time of Moses this council, say the rabbies, was held at the door of the tabernacle of the testimony. As soon as the people were in possession of the land of promise, the sanhedrim followed the tabernacle. It was kept successively at Gilgal and Shiloh, at Kirjath-jearim, at Nob, at Gibeon in the house of Obed-edom; and, lastly, it was settled at Jerusalem till the Babylonish captivity. During the captivity it was kept up at Babylon. After the return from Babylon it continued at Jerusalem to the time of the Sicarii or Assassins. Then, finding that these profligate wretches whose number increased every day sometimes escaped punishment by the favor of the president or judges, it was removed to Hanoth, which were certain abodes, situated, as the rabbies tell us, upon the mountain of the temple. Thence they came down into the city of Jerusalem, withdrawing themselves by degrees from the temple. Afterwards they removed to Jamnia, thence to Jericho, to Uzza, to Sepharvaim, to Bethsanim, to Sephoris, last of all to Tiberias, where they continued to the time of their utter extinction. This is the account which the Jews give us of the sanhedrim. But the learned do not agree with them in all this. F. Petau fixes the date of the first sanhedrim, when Gabinus was governor of Judea, who, according to Josephus, erected tribunals in the five principal cities of Judea; Jerusalem, Gadara, Aniathus, Jericho, and Sephora or Sephoris, in Galilee. Grotius places the origin of the sanhedrim under Moses, as the rabbies do; but he makes it terminate at the beginning of Herod's reign. Basnage places it under Judas Maccabæus, or his brother Jonathan. We see, indeed, under Jonathan Maccabæus, that the senate with the high-priest sent an embassy to the Romans. The rabbies say that Alexander Jannæus, king of the Jews, of the race of the Asmonæans, appeared before the sanhedrim, and claimed a right of sitting there, whether the senators would or not. Josephus informs us that, when Herod was but yet governor of Galilee, he was summoned before the senate, where he appeared. It must be therefore acknowledged that the sanhedrim was in being before the reign of Herod. It was in being afterwards, as we find from the gospel and from the Acts. Jesus Christ, in St. Matthew (v. 22), distinguishes two tribunals. 'Whosoever is angry with his brother without a cause shall be in danger of the judgment.' This, they say, is the tribunal of the twenty-three judges. 'And whosoever shall say to his brother, Raca shall

be in danger of the council;' that is, of the great sanhedrim, which had the right of life and death, at least generally, and before this right was taken away by the Romans. See Mark xiii. 9, xiv. 55, xv. 1; Luke xxii. 52. 66; John xi. 47; Acts iv. 15, v. 21, where mention is made of the synedrion or sanhedrim. The origin of the sanhedrim is involved in uncertainty; for the council of the seventy elders established by Moses was not what the Hebrews understand by sanhedrim. Besides we cannot perceive that this establishment subsisted either under Joshua, the judges, or the kings. We find nothing of it after the captivity, till the time of Jonathan Maccabæus. The tribunals erected by Gabinus were very different from the sanhedrim, which was the supreme court of judicature, and fixed at Jerusalem; whereas Gabinus established five at five different cities. Lastly, this senate was in being in the time of Jesus Christ; but it had no longer then the power of life and death. John xviii. 31.

SANICULE, SANICULA, or self-heal, in botany, a genus of the digynia order, and petandria class of plants; natural order forty-fifth, umbellatæ. The umbels are close together, almost in a round head; the fruit is scabrous; the flowers of the disk abortive. There are three species, viz.

1. *S. Canadensis*, sanicle of Canada.

2. *S. Europæa*, European self-heal; and, 3. *S. Maralandica*, the sanicle of Maryland; all of which are found in many parts both of Scotland and England. These plants were long celebrated for healing virtues, but are now disregarded.

SANIES, *n. s.* *Lat. sanies*. Thin matter; serous excretion.

It began with a round crack in the skin, without other matter than a little *sanies*. *Wiseman.*

Observing the ulcer *sanious*, I proposed digestion as the only way to remove the pain. *Id.*

But bolder grown, at length inherent found
A pointed thorn and drew it from the wound.
The cure was wrought; he wiped the *sanious* blood.
And firm and free from pain the lion stood. *Couper.*

SANIES, in surgery, is a serous putrid matter, issuing from wounds. It differs from pus, which is thicker and whiter.

SANITY, *n. s.* *Lat. sanitas*. Soundness of mind.

How pregnant, sometimes, his replies are!
A happiness that madness often hits on,
Which *sanity* and reason could not be
So prosperously delivered of. *Shakespeare. Hamlet.*

SANNAZARIUS (James), a celebrated Latin and Italian poet, born at Naples in 1458. He ingratiated himself into the favor of king Frederick; and, when that prince was dethroned, attended him into France, where he staid with him till his death, which happened in 1504. Sannazarius then returned into Italy, where he applied himself to polite literature, and particularly to Latin and Italian poetry. His gay and facetious humor made him sought for by all companies; but he was so afflicted on hearing that Philibert, prince of Orange, general of the emperor's army, had demolished his country house, that it threw him into an illness, of which he died in 1530. He wrote a great number of

Italian and Latin poems: among those in Latin his *De Partu Virginis* and *Eclouges* are chiefly esteemed; and the most celebrated of his Italian pieces is his *Arcadia*.

SAN-PIETRO, or **SAMPIERO**, called also *Bastilica*, from *Bastia*, in *Corsica*, his birth-place, was a celebrated general in the French service, under *Francis I.*, *Henry II.*, and *Charles IX.* He bore arms at an early age against the *Genoese*, and by his valor and military skill soon became formidable to them. He married *Vanini Ornano*, a rich and beautiful heiress, only daughter of the viceroy of *Corsica*. Still inveterate against the *Genoese*, he went into France with his wife and family, where he served the court successfully during the civil wars. He then set out for *Constantinople* to solicit the grand signior to send a fleet against the *Genoese*. Mean time the *Genoese* sent their agents to his wife, then at *Marseilles*, soliciting her to return to her native country, promising the restoration of her fortune, and even giving hopes of a pardon to her husband. The credulous *Vanini* was persuaded. She set out with her furniture, jewels, and family, for *Genoa*. A friend of *San-Pietro's* armed a ship, pursued her, brought her back to France, and delivered her to the parliament of *Aix*. *San-Pietro*, returning from *Constantinople*, was enraged. He then went to *Aix*, and demanded his wife, and afterwards murdered her. He immediately after set out for *Paris*, appeared before *Charles IX.*, confessed his crime, pleaded his former services, and demanded a pardon. The whole court was shocked, but the pardon was granted in 1567. He was soon after, however, assassinated by the brothers of his wife.

SANQUEL, one of the largest rivers of *South America*, in *Patagonia*. It has its rise in the snowy mountains of the *Cordillera*, on the east side, and derives its name from a thorny, thick, and rough reed, called *sanquel*, with which the country between this river and the first *Desaguero* abounds. It makes its first appearance at a place called *Diamante*, whence the *Spaniards* sometimes call it the *Rio del Diamante*. It has a course of 300 miles, and enters the *Rio Negro* by a wide mouth.

SANQUHAR, a royal borough, seated on the *Nith*, on the borders of *Ayrshire*; nearly equidistant from the *Solvay Frith* and the *Atlantic*. It has one principal street, about a quarter of a mile long, and has long been famed for its woolen manufactures. *Sanquhar* was erected into a burgh of barony in 1484; but had previously been a burgh from time immemorial, as that charter relates. *King James VI.* made it a royal borough in 1596. It is governed by a provost, three bailiffs, dean of guild, treasurer, and eleven counsellors. It joins with the boroughs of *Dumfries*, *Annan*, *Kirkcubright*, and *Lochmaben*, in electing a representative in the imperial parliament. It lies twenty-seven miles N. N. W. of *Dumfries*, thirty-two north of *Kirkcubright*, and thirty-three from *Ayr*.

SANS, *prep.* Fr. *sans*. Without. Out of use.

Last scene of all,

That ends this strange eventful history,

Is second childishness and mere oblivion,

Sans teeth, *sans* eyes, *sans* taste, *sans* every thing.

Shakspeare.

SANSANDING, a large town of *Central Africa*, in the state of *Bambara*. It is situated on the *Niger*, and has a considerable trade, particularly in salt. The market-place is an extensive square, constantly crowded, where the different articles are exposed on stalls, roofed with mats. The currency is in cowries, 3000 of which go to a monkali of gold, valued at 12s. 6d. sterling. Twenty-five miles north-east of *Sego*.

SANS-CULOTTES, Fr. from *sans*, without, and *culottes*, breeches; a term of contempt, used by the proud noblesse of France under the ancient despotism, towards those of the inferior ranks. This rankled in the minds of the people, when they got the power into their hands, and the plebeians, in the pride of their power, at last ennobled this term of reproach, and some of their bravest generals in their despatches announcing their victories, gloried in having been born *sans-culottes*. The term and its fate merit preservation in a work of science, as a caveat against the pride of the higher ranks and the folly of the lower.

SANSON (*Nicholas*), a celebrated French geographer, born at *Abbeville*, in *Picardy*, December 12th, 1600. Having finished his studies, he entered into business as a merchant, but, meeting with considerable losses, he gave up merchandise, and applied himself to geography; his father having studied that science, and published several maps. In 1619 he completed a map of ancient Gaul, which was very favorably received, and encouraged him to further exertions. After this he published about 300 large maps of different countries, ancient and modern; and caused 100 tables to be engraved, exhibiting the divisions of modern Europe. He also published several tracts to illustrate his maps; as, 1. Remarks upon the *Ancient Gauls*; 2. A Treatise on the Four Parts of the World; 3. Two Tables of the Cities and Places in the Maps of the *Rhine* and *Italy*; 4. A Description of the *Roman Empire*, of *France*, *Spain*, *Italy*, *Germany*, and the *British Isles*; together with the ancient *Itineraries*. He also wrote: 5. The *Antiquity of Abbeville*, which involved him in a controversy with *F. L'Abbe*, the *Jesuit*, and others; 6. *Sacred Geography*; and, 7. A *Geographical Index of the Holy Land*. *Cardinal Richelieu* and *Mazarine* patronised him greatly; and the latter appointed him royal geographer. He died in *Paris*, while preparing an *Atlas* of all his maps, in 1667; leaving two sons.

SANSONATE, a district and town of *Guatemala*, to the southward of *Suchitepec*. The town is a sea-port, and is situated 120 miles south-east of the city of *Mexico*, with about 2000 inhabitants. The population of the district is about 40,000, consisting almost entirely of *Indians*, *mulattoes*, and *negroes*, and its capital is *La Trinidad* or *Sansonate*, situated on the river *Sansonate*, at its mouth.

SANSOVINO (*James*), an eminent sculptor and architect, born in *Florence* in 1479. The mint, and the library of *St. Mark*, at *Venice*, were magnificent specimens of his skill. He was so highly esteemed at *Venice*, that, when a general tax was laid on the inhabitants, he and *Titian* alone were exempted. He died in that city, in 1570, at the age of ninety-one.

SANTA BARBARA, a sea-port and settlement of New California, visited by Vancouver in 1793, who gave the name of Point Felipe to the west point of its harbour. The interior a few miles only from the sea coast is composed of rugged barren mountains, which rise in five distinct ridges a great distance inland, and to the east. Vancouver says that the sheep and poultry at this settlement exceed, both in size and delicacy of flavor, those of any of the other settlements which he visited. Santa Barbara was founded in 1786, and lately contained 1100 inhabitants. It is garrisoned by about sixty soldiers, out of which it affords guards also to the mission of the same name. Long. $240^{\circ} 43' E.$, lat. $34^{\circ} 24' N.$

SANTA CRUZ, the capital of the island of Tenerife, and residence of the governor of the Canaries, is also the centre of the trade of these islands. Here reside all the consuls and commissaries of foreign powers, and this port may be considered as a great caravansary on the road between America and the Indies. It is situated in a plain, surrounded by barren mountains, and its only natural advantage is a road, which affords safe anchorage in deep water, where ten or twelve ships of war may lie. A mole stretches out into the sea, which is rounded at the extremity, to afford a landing place, and is ascended by a stair at the top of which is placed the custom-house, which it is thus impossible to avoid. The streets are tolerably broad, and generally well built. The houses have all a wide court in the interior. Travellers remark the vast number of ecclesiastics seen on the streets, and of the impurity of beggars. The population is about 8400.

SANTA CRUZ DE LA SIERRA, a town and province of Buenos Ayres, founded in 1558, and afterwards removed 150 miles more to the south, to the place where it now stands, in lat. $14^{\circ} 20' S.$, at the foot of a chain of mountains, which bounds the country of the Chiquitos Indians to the north, and thence runs in a north-east direction to Lake Xarayes. It was at first called San Lorenzo, and stands on the Puapay.

SANTALUM, in botany, a genus of the monogynia order, and octandria class of plants: CAL. superior: COR. monopetalous; the stamina placed in the tube; the stigma is simple; the fruit a berry. It grows to the size of a walnut-tree. Its leaves are entire, oval, and placed opposite to each other. Its flower is of one single piece, charged with eight stamina, and supported upon the pistil, which becomes an insipid berry, resembling in form that of the laurel. Its wood is white in the circumference, and yellow in the centre when the tree is old. This difference of color constitutes two kinds of sanders, both employed for the same purposes, and having equally a bitter taste, and an aromatic smell. With the powder of this wood a paste is prepared with which the Chinese, Indians, Persians, Arabians, and Turks, anoint their bodies. It is likewise burnt in their houses, and yields a fragrant and wholesome smell.

1. *S. album*, white sanders, is brought from the East Indies in billets, about the thickness of a man's leg, of a pale whitish color. It is that

part of the yellow sanders wood which lies next the bark. Great part of it, as met with in the shops, has no smell or taste, nor any sensible quality that can recommend it to the notice of the physician.

2. *S. flavum*, yellow sanders, is the interior part of the wood of the same tree which furnishes the white, is of a pale yellowish color, of a pleasant smell, and a bitterish aromatic taste, accompanied with an agreeable kind of pungency. Distilled with water it yields a fragrant essential oil, which thickens in the cold into the consistency of a balsam. Digested in pure spirit it imparts a rich yellow tincture; which, being committed to distillation, the spirit arises without bringing over any thing considerable of the flavor of the sanders. Hoffman looks upon this extract as a medicine of similar virtues to ambergris; and recommends it as an excellent restorative in great debilities.

3. *S. rubrum*, red sanders, though in less estimation, and less generally used, is sent by preference into Europe. This is the produce of a different tree, which is common on the coast of Coromandel. Some travellers confound it with the wood of Caliatour, which is used in dyeing. See *PTEROCARPUS*.

SANTANDER, or *St. Andero*, a province of Spain, called also, and more correctly, *Las Montanas de Santander* and *de Burgos*, or simply *Las Montanas*, stretching along the southern shore of the Bay of Biscay, between Asturias, Old Castile, and Biscay Proper. It consists of steep mountains and valleys, and the produce varies greatly, according to the elevation. The valleys produce maize; and the pasturage, whether on the plains or on the slope of the hills, is in general good. It contains mines of the finest iron; and there are foundries of artillery and steel at *La Cavada* and *Lierganes*. The coast has the excellent harbours of *St. Vincent de la Barquera*, *Santillana*, *Castro de Urdiales*, *Santander*, *Laredo*, and, above all, *Santona*. Ships of war are built at *Guarnizo*. This province formed part of the ancient *Cantabria*.

SANTANDER, the capital of the foregoing province, is situated on the declivity of a hill, in a circular peninsula, to the east of *Santillana*. Its port is of easy access for merchant vessels of all sizes; frigates of forty guns must wait the flow of the tide before they can pass the bar. The harbour is protected by two forts or castles, and the entry of vessels into the inner basin facilitated by a fine pier. *Santander* was long one of the ports called *habilitados*, or authorised to carry on a free trade with Spanish America. It also exports considerable quantities of wool. Population 10,000. Since 1754 it has been the see of a bishop. Fifty miles north-west of *Bilboa*, and seventy-nine north of *Burgos*.

SANTEE, a river of South Carolina, United States, formed by the union of the *Congaree* and *Wateree*. It runs into the sea by two mouths, twenty miles below *Georgetown*. This river affords a navigation at some seasons nearly 300 miles, and is connected with *Cooper River* by a canal. The main branch in North Carolina is called *Catawba*.

SANTEUIL, or *SANTEUL* (*John Baptist*), *de*,

was born in Paris in 1630. Having finished his studies in Louis XIV.'s college he applied himself entirely to poetry, and celebrated in his verses the praises of several great men. He was caressed by all the learned men of his time; and Louis XIV. gave him a pension. He attended the duke of Bourbon to Dijon, when that prince went thither to hold the states of Burgundy; and died there in 1697, as he was preparing to return to Paris. Besides his Latin hymns, he wrote a great number of Latin poems.

SANTIPORE, a town and celebrated factory of the East India Company in Bengal, district of Kishenagur. The factory chiefly purchases muslins, saunahs, sugar, and rum. It is esteemed one of the healthiest places in Bengal. Long. 28° 34' E., lat. 23° 13' N. There is another place of the same name in Allahabad.

SANTOLINA, lavender cotton, in botany, a genus of the polygamia æqualis order, and syngenesia class of plants; natural order forty-ninth, compositæ. The receptacle is paleaceous; there is no pappus: CAL. imbricated and hemispherical. The most remarkable species are these:—

1. *S. chamæcyparissus*, the common lavender-cotton, has been long known in the English gardens; it was formerly called *abrotanum fœmina*, or female southernwood, and by corruption *bro-tany*; it grows naturally in Spain, Italy, and the warm parts of Europe. It has a ligneous stalk, dividing into many branches, garnished with slender, hoary, indented, leaves, that have a rank strong odor when handled. The branches are terminated by a single flower, composed of many hermaphrodite florets, which are sistular, cut into five parts at the top, of a sulphur-yellow and included in one common scaly empalement, having no borders or rays. These are succeeded by small, oblong, striated seeds, which are separated by scaly chaff, and ripen in the empalement; the plants thrive in a dry soil and a sheltered situation.

2. *S. chamæmelifolia*, with obtuse woolly leaves, has shrubby stalks, which rise three feet high, garnished with broader leaves than any of the other, whose indentures are looser, but double; they are hoary, and when bruised have an odor like chamomile. The leaves are placed pretty far asunder, and the stalks are garnished with them to the top. The stalks are divided likewise at the top into two or three foot-stalks, each sustaining one pretty large sulphur-colored flower.

3. *S. decumbens*, with linear leaves, is of a lower stature than either of the former, seldom rising more than fifteen or sixteen inches high. The branches spread horizontally near the ground, and are garnished with shorter leaves than either of the former, which are hoary and finely indented; the stalks are terminated by single flowers, of a bright yellow color, which are larger than those of the first sort.

4. *S. rosmarinifolia*, with linear entire leaves, and shrubby stalks, which rise about three feet high, sending out long slender branches, garnished with single linear leaves of a pale-green color. The stalks are terminated by large, single, globular flowers, of a pale sulphur-color.

5. *S. villosa*, with woolly leaves, has a shrubby

stalk, which branches out like the first, but the plants seldom grow so tall. The branches are garnished very closely below with leaves; the flowers are of a deep sulphur-color. It grows naturally in Spain.

6. *S. virens*, with very long linear leaves, rises higher than any other of this genus. The branches are more diffused; they are slender, smooth, and garnished with very narrow long leaves, which are of a deep green color; the stalks are slender, naked towards the top, and terminated by single flowers of a gold color. All these plants may be cultivated so as to become ornaments to a garden, particularly in small bosquets of ever-green shrubs, where, if they are artfully intermixed with other plants of the same growth, and placed in the front line, they will make an agreeable variety; especially if care be taken to trim them twice in a summer, to keep them within bounds, otherwise their branches are apt to straggle, and in wet weather to be borne down and displaced, which renders them unsightly; but, when they are kept in order, their hoary and different colored leaves will have a fine effect in such plantations. They may be propagated by planting slips or cuttings during the spring, in a border of light fresh earth, but must be watered and shaded in hot dry weather, until they have taken root; after which they will require no farther care but to keep them clean from weeds till autumn, when they should be transplanted where they are designed to remain; but, if the ground is not ready by that time to receive them, let them remain in the border until spring; for if they are transplanted late in autumn, they are liable to be destroyed by cold in winter.

SANTORINI, **SANTORIN**, **ST. ERINI**, or **ST. IRENE**, the ancient Thera and Calista, an island in the Grecian archipelago, between Nanphio, Nio, and Candia. Its length and greatest breadth are about eight miles. It has the form of a crescent, and between its two points are the small islands of Therasia and Aspronisi, within which again are three others. All seem of volcanic origin, and have risen at different periods from the sea: Santorini being almost entirely covered with pumice-stone, ashes, and other volcanic substances. It is, however, well cultivated, and produces barley, cotton, vines, almonds, figs, and various fruits. Population 10,000. Long. 25° 36' E., lat. 36° 28' N.

SANTOS, a well-built town and port of St. Pauls, Brazil, is the storehouse of the province, and the resort of many vessels trading to the Rio de la Plata. The rice and bananas of the district, which are grown in great quantities, are considered the best in Brasil. It also exports sugar, coffee, rum, rice, mandioca, indigo, &c.

As Santos is the embarking place of St. Paul's, its intercourse with that town is very considerable. In the course of a day several hundred mules arrive, loaded with the produce of the country, and return with salt, iron, copper, earthenwares, and European manufactures. It has convenient water carriage, its river being navigable about twenty miles up to Cuberton, where an officer with a guard of soldiers is stationed to receive the duties, for the repair of the

tree. All these plants are propagated by seeds; they must be put into small pots, and plunged into a hot-bed of tanner's bark. In five or six weeks the plants will appear, when the glasses of the hot-bed should be raised every day in warm weather, to admit fresh air to the plants. In three or four weeks after the plants appear they will be fit to transplant, when they must be shaken out of the pots, and carefully parted, so as not to injure their roots, and each planted into a separate small pot, and plunged into the hot-bed again, observing to shade them from the sun until they have taken new root; after which time they must have free air admitted to them every day when the weather is warm, and will require to be frequently watered.

SAPLING, *n. s.* From sap. A young tree; a young plant.

Look how I am bewitched; behold mine arm
Is, like a blasted sapling, withered up. *Shakspeare.*

Nurse the saplings tall, and curl the grove
With ringlets quaint. *Milton.*

A sapling pine he wrenched from out the ground,
The readiest weapon that his fury found. *Dryden.*

Slouch turned his head, saw his wife's vigorous
hand

Wielding her oaken sapling of command. *King.*
What planter will attempt to yoke

A sapling with a falling oak? *Swift.*

SAPONACEOUS, *adj.* } Lat. *sapo*, soap.
SAPONARY. } Soapy; resembling
soap; having the qualities of soap.

By digesting a solution of salt of tartar with oil
of almonds, I could reduce them to a soft saponary
substance. *Boyle.*

Any mixture of an oily substance with salt, may
be called a soap: bodies of this nature are called *sap-
onaceous.* *Arbuthnot.*

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There are nine species. Of these the
most remarkable is the—

S. officinalis, which is a British plant, has a
creeping root, so that in a short time it would
fill a large space of ground. The stalks are
about two feet high, and of a purplish color.
The foot-stalks of the flowers arise from the
wings of the leaves opposite; they sustain four,
five, or more purple flowers each; which have
generally two small leaves placed under them.
The stalk is also terminated by a loose bunch
of flowers growing in form of an umbel; they have
each a large swelling cylindrical empalement,
and five broad obtuse petals, which spread open,
of a purple color. These are succeeded by oval
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The decoction is used to cleanse and scour
woollen cloths; the poor people of some coun-
tries use it instead of soap for washing; from
which use it had its name.

SAPOR, *n. s.* Lat. *sapor*. Taste; power of
affecting or stimulating the palate.

There is some *sapor* in all aliments, as being to be
distinguished and judged by the gust, which cannot
be admitted in air. *Brown.*

The shape of those little particles of matter which

distinguish the various *sapors*, odours, and colours of
bodies. *Watts.*

SAPOR I., king of Persia, succeeded his
father Artaxerxes about A. D. 438. He enlarged
his dominions by taking Mesopotamia, Syria,
and Cilicia; but proved a most haughty and
cruel tyrant, particularly to the Roman emperor
Valerian, whom he took prisoner, and after every
possible insult put him to a cruel death. After
this he was very unsuccessful; was repeatedly
defeated by Odenatus, prince of Palmyra; and
at last assassinated by his own subjects, A. D.
273. He was succeeded by his son Hormisdas.

SAPOR II., king of Persia, grandson of Sapor
I., succeeded his father Hormisdas, A. D. 310.
He was a very active and warlike monarch, and
proved very troublesome to the Romans. His
victories alarmed the emperor Julian so much
that he marched against him in person; but in a
recounter with the troops of this prince received
his mortal wound. Jovian made peace with
Sapor; but the latter afterwards renewed hosti-
lities, invaded Armenia, and defeated the emper-
or Valens. Sapor died A. D. 380, after a long
and prosperous reign of seventy years.

SAPPERS are soldiers belonging to the
royal artillery, whose business it is to work at
the saps, for which they have an extraordinary
pay. A brigade of sappers generally consists of
eight men, divided equally into two parties; and,
whilst one of these parties is advancing the sap,
the other is furnishing the gabions, fascines, and
other necessary implements. They relieve each
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SAPPHIC and **ADONIAN**, or adonic verse, in
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Aürë-	ãm quís	quís mëli-	öcrl-	tätëm
Diri-	git, tu	tus caret	obso-	letí
Sordi-	bus tec-	ti, caret	invi-	denda
				Sobrius aula.

SAPPHIRA, the wife of a rich merchant in
Gueldres, equally distinguished for her beauty
and her misfortunes. Rhinsauld, a German
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fell in love with her; and, not being able to se-
duce her either by promises or presents, he im-
prisoned her husband, pretending that he kept
up a traitorous correspondence with the enemies
of the state. Sapphira yielded to the passion of
the governor to relieve her husband from chains:
but private orders had already been given to put
him to death. His unhappy widow, overwhelmed
with grief, complained to Charles duke of Bur-
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and to make over to her all his possessions. As
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murdered, became lawful heirs to all his wealth.

SAPPHIRE, *n. s.* Lat. *sapphirus*. A precious stone of a blue color.

In enrolled tufts, flowers, purified, blue and white, Like *saphire*, pearl, in rich embroidery.

Shakspeare.

She was too *saphirine* and clear for thee; Clay, flint, and jet now thy fit dwellings be.

Donne.

A few grains of shell silver, with a convenient proportion of powdered crystal glass, having been kept three hours in fusion, I found the coliquated mass, upon breaking the crucible, of a lovely *saphirine* blue.

Boyle.

Saphire is of a bright blue color. *Woodward.*

He tinctures rubies with their rosy hue, And on the *saphire* spreads a heavenly blue.

Blackmore.

That the *saphire* should grow foul, and lose its beauty, when worn by one that is lecherous, and many other fabulous stories of gems, are great arguments that their virtue is equivalent to their value.

Derham.

SAPPHIRE, a genus of precious stones, of a blue color, and the hardest of all except the ruby and diamond. They are found in the same countries with these jewels, also in Bohemia, Alsace, Siberia, and Auvergne. M. Rome de l'Isle mentions one found at Auvergne, which appeared quite green or blue according to the position in which it was viewed. They are seldom found of a deep blue color throughout, or free from parallel veins. The late unfortunate Louis XVI. had one with a stripe of fine yellow topaz in the middle. Some are found half green and half red, and are foliated like the ruby. The finest sapphires come from the East Indies. In Scotland they have been found of a hardness and lustre equal to the oriental, both light and deep colored. When powdered, they are fusible with borax, magnesia, or microcosmic salt, into a transparent glass. Jameson considers it as a species of rhomboidal corundum. It is the *teslie* of Haiüy, and the perfect corundum of Bournon. The following is Jameson's description of it abridged by Dr. Ure:—Colors blue and red; it occurs also gray, white, green, and yellow. It occurs in blunt-edged pieces, in roundish pebbles, and crystallised. The primitive figure is a slightly acute rhomboid, or double three-sided pyramid, in which the alternate angles are $86^{\circ} 4'$ and $93^{\circ} 56'$. The following are the usual forms:—a very acute, equiangular, six-sided pyramid; the same truncated on the summit; a perfect six-sided prism; an acute, double, six-sided pyramid: the same acuminated, or truncated in various ways. Splendent, inclined to adamantine. Cleavage parallel with the terminal planes of the prism. Fracture conchoidal. From transparent to translucent. Refracts double. Brittle. Specific gravity 4 to 4.2. Its constituents are,

	Klaproth.	Chenevix.
	Blue.	Red.
Alumina,	98.5	90.0
Lime,	6.5	7.0
Oxide of iron,	1	1.2
		Loss 1.8
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Infusible before the blowpipe. It becomes electrical by rubbing, and retains its electricity for several hours; but does not become electrical by heating. It occurs in alluvial soil, in the vicinity of rocks belonging to the secondary or floetz-trap formation, and imbedded in gneiss. It is found at Podesditz and Treblitz in Bohemia, and Hohenstein in Saxony; Expailly in France; and particularly beautiful in the Capelan mountains, twelve days' journey from Sirian, a city of Pegu. Next to diamond, it is the most valuable of the gems. The white and pale blue varieties, by exposure to heat, become snow-white, and when cut exhibit so high a degree of lustre that they are used in place of diamonds. The blue stone to which the ancients applied the name of *sapphire* was different from ours: it was spotted with golden spangles; it was, indeed, the same as the lapis lazuli.

SAPPHO, a celebrated poetess of antiquity, who has been often styled the Tenth Muse, born at Mitylene, in the isle of Lesbos, about A.A.C. 610. She was contemporary with Stesichorus and Alcæus. The last was her countryman, and some think her suitor. A verse of this poet, in which he intimates to her his passion, is preserved in Aristotle, Rhet. lib. i. cap. 9, together with the damsel's answer. Of the numerous poems this lady wrote, nothing remains but some small fragments which the ancient scholiasts have cited; a hymn to Venus, preserved by Dionysius of Halicarnassus, and a short ode. She fell in love with Phaon, and did all she could to win him, but in vain. She followed him into Sicily, whither he retired to avoid her; and during her stay in that island composed the Hymn to Venus, still extant, in which she begs so ardently the assistance of that goddess. But her prayers proved fruitless; Phaon was cruel to the last, and Sappho at length went to the promontory Leucas, and threw herself into the sea. See **LEUCATE**. The Mitylenians held her merit in such high esteem, that they stamped their money with her image; and the Romans afterwards erected a noble statue of porphyry to her. Vossius says that none of the Greek poets excelled Sappho for sweetness of verse; and that she made Archilochus the model of her style, but softened the harshness of his expression. Rapin observes that Longinus had great reason to extol the admirable genius of this woman; for what remain of her works are delicate, harmonious, and impassioned to the last degree.

SARABAND, *n. s.* Fr. *sarabande*; Span. *çarabunde*. A Spanish dance.

The several modifications of this tune-playing quality in a fiddle, to play preludes, *sarabands*, jigs, and gavots, are as much real qualities in the instrument as the thought is in the mind of the composer.

Arbuthnot and Pope.

A **SARABAND** is a musical composition, in the triple time, the motions of which are slow and serious. See **MUSIC**. Saraband is also a dance to the same measure, which usually terminates when the hand that beats the time falls; and is otherwise much the same as the minuet. The saraband is said to be originally derived from the Saracens, and is usually danced to the sound of the guitar or castanettes.

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	100.0	100.0

Infusible before the blowpipe. It becomes electrical by rubbing, and retains its electricity for several hours; but does not become electrical by heating. It occurs in alluvial soil, in the vicinity of rocks belonging to the secondary or floetz-trap formation, and imbedded in gneiss. It is found at Pödsedlitz and Treblitz in Bohemia, and Hohenstein in Saxony; Expailly in France; and particularly beautiful in the Capelan mountains, twelve days' journey from Sirian, a city of Pegu. Next to diamond, it is the most valuable of the gems. The white and pale blue varieties, by exposure to heat, become snow-white, and when cut exhibit so high a degree of lustre that they are used in place of diamonds. The blue stone to which the ancients applied the name of *sapphire* was different from ours: it was spotted with golden spangles; it was, indeed, the same as the lapis lazuli.

SAPPHO, a celebrated poetess of antiquity, who has been often styled the Tenth Muse, born at Mitylene, in the isle of Lesbos, about A.A.C. 610. She was contemporary with Stesichorus and Alcæus. The last was her countryman, and some think her suitor. A verse of this poet, in which he intimates to her his passion, is preserved in Aristotle, Rhet. lib. i. cap. 9, together with the damsel's answer. Of the numerous poems this lady wrote, nothing remains but some small fragments which the ancient scholiasts have cited; a hymn to Venus, preserved by Dionysius of Halicarnassus, and a short ode. She fell in love with Phaon, and did all she could to win him, but in vain. She followed him into Sicily, whether he retired to avoid her; and during her stay in that island composed the Hymn to Venus, still extant, in which she begs so ardently the assistance of that goddess. But her prayers proved fruitless; Phaon was cruel to the last, and Sappho at length went to the promontory Leucas, and threw herself into the sea. See **LEUCATE**. The Mitylenians held her merit in such high esteem, that they stamped their money with her image; and the Romans afterwards erected a noble statue of porphyry to her. Vossius says that none of the Greek poets excelled Sappho for sweetness of verse; and that she made Archilochus the model of her style, but softened the harshness of his expression. Rapin observes that Longinus had great reason to extol the admirable genius of this woman; for what remain of her works are delicate, harmonious, and impassioned to the last degree.

SARABAND, *n. s.* Fr. *sarabande*; Span. *çarabande*. A Spanish dance.

The several modifications of this tune-playing quality in a fiddle, to play preludes, *sarabands*, jigs, and gavots, are as much real qualities in the instrument as the thought is in the mind of the composer.

Arbutnot and Pope.

A **SARABAND** is a musical composition, in the triple time, the motions of which are slow and serious. See **MUSIC**. Saraband is also a dance to the same measure, which usually terminates when the hand that beats the time falls; and is otherwise much the same as the minuet. The saraband is said to be originally derived from the Saracens, and is usually danced to the sound of the guitar or castanettes.

S A R A C E N S .

SARACENS, a name given to the former inhabitants of Arabia; so called from the word *saru*, which signifies a desert, as the greatest part of Arabia is; and, this being the country of Mahomet, his disciples were called Saracens.

Under the article ARABIA, and still more fully under MAHOMET, we have given an account of the rise, progress, and establishment of the Mahometan system of imposture and superstition; previous to which event the name of Saracens was hardly known in Europe. Of his flight from Mecca to Medina, A. D. 622, and consequent origin of the Mahometan era of the Hegira, we have also given a particular account, with his various and rapid successes, for ten years after the commencement of that era. By the year 631, the ninth of the Hegira, the principal men among the Arabs, and the whole of the Koreish, his most inveterate opponents, had submitted, and by the year 632 the whole peninsula of Arabia was reduced under his subjection and superstition. But in that year, the tenth of the Hegira, while fresh embassies of submission were daily arriving, this famous impostor died in Medina, in the chamber of his best beloved wife, in consequence of a poisoned dish presented to him three years before, by Zainoh, the daughter of Hareth, an Arabian chief, of which he had eaten but a small quantity. The death of Mahomet threw all Mecca into consternation. The veneration of the people was so great that they could hardly believe his death possible. Abu Becr, however, at last convinced them that, though God was immortal, his prophet was mortal.

Warm disputes followed between the Mohajerin and the Ansars; about the election of a caliph, as his successor. Ali, the son-in-law of Mahomet, who had married the prophet's daughter, Fatima, certainly had the best title; but Abu Becr was preferred by the influence of Omar, and chosen by both parties. Ali, after some remonstrances, submitted: but his superior right is defended even to the present period, by a numerous party of Mahometans, hence called Shites, or Sectaries. Upon Abu Becr's accession many of the Arabs refused to pay the tribute imposed on them by Mahomet; whereupon Abu Becr sent Khaled, with an army of 4500 men, who totally defeated them, brought off much plunder, and made many of them slaves. He also killed Moseilama, and defeated Toleiah, two pretended prophets, who attempted to imitate Mahomet in his posture. He next sent his son Osama into Syria, where he plundered the country and did much damage to the Greeks. He soon after sent Khaled to invade Irak, which he accomplished, and put an end to the kingdom of Hira, collecting 70,000 pieces of money, and subjecting the people to tribute. He next prepared to invade Syria, and, having collected a great army, gave Yezid Ebn Abu Sosian the command of it, with the following among other advices:—'Treat your men with lenity: if you

be victorious, kill neither old people, women, nor children: cut down no palm trees, nor burn any fields of corn: spare all fruit trees, and slay no cattle but such as you use: put none of the religious persons to the sword: offer no violence to the places they serve God in.' The Greek emperor was much alarmed, and sent a party of Greeks to reconnoitre the enemy, who falling in with a party of Arabs, a battle ensued, in which the Greeks lost 1200 men, while the Saracens lost only 120. Many skirmishes followed, and much rich spoil was taken by the Saracens, and sent to the caliph. Another party of Greeks, however, were more successful against Abu Obeidah, whom they totally defeated, and who was therefore displaced by Abu Becr. Khaled was sent to reduce Bostra, a rich city of Syria, which he accomplished chiefly by treachery. Being joined by Obeidah's troops, he laid siege to Damascus with 45,000 men. The Greek emperor sent an army of 100,000 men, under general Werdan, to relieve it; but they were attacked by Derar Ebn Al Wazar, at the head of a numerous body of Saracens; and, though the Greeks were at first so successful as even to take Derar himself prisoner (who had plunged into the heart of the Christian army, killed the standard-bearer, and seized the standard, which was a cross richly adorned with precious stones), yet the Saracens completely defeated them, Khaled himself turning the fortune of the day, by arriving with a fresh body of foot and 1000 horse. Werdan, however, having still an army of 70,000 men, made a fresh attempt to relieve Damascus; but being again completely defeated, with the loss of 50,000 men, Damascus was soon after taken, A. D. 634; and that very day Abu Becr died of a consumption, aged sixty-three.

Abu Becr was succeeded by Omar I., who was saluted with the title of emperor of the believers, and replaced Abu Obeidah in the command, being displeased with Khaled for his cruelties; whereas Obeidah was mild and merciful to the Christians. Khaled, however, bore his disgrace with magnanimity, and swore he would obey the new caliph. Obeidah, however, some time afterwards voluntarily yielded the command to Khaled, as being possessed of more military skill. Under these commanders, the Saracens soon after reduced the fortresses of Kinnisrin, Baalbec, Adestan, Shaizar, and Hems: upon which the Greek emperor Heraclius sent against them an army of 240,000 men, under Manuel; but this numerous body was utterly defeated by Khaled, near a village called Yermouk; where, according to the Arabian historians, the Christians lost 150,000 men killed, and 40,000 prisoners, while the Arabs lost only 4030 men; but this seems incredible. The defeat of Yermouk was followed by the loss of Jerusalem, and all Palestine. Omar, hearing of the success of his troops, immediately set out to visit Jerusalem, in a kind of pilgrimage, being dressed in a coarse habit made of camels' hair, praying daily, and performing numberless su-

perstitious ceremonies by the way, as well as some signal acts of justice and mercy, and giving some striking instances of humility, by causing all his followers to eat with him without distinction. Upon his arrival he preached a sermon to his people; after which he signed the articles of capitulation, confirmed the inhabitants of Jerusalem in all their rights and privileges, and visited the temple of the resurrection, and other antiquities of that city, accompanied by Sophronias the patriarch, who with difficulty could prevail on him to change his dirty garments for others more becoming his dignity. After dividing the government of Syria between Abu Obeidah and Yezid Ebn Abu Sosian, ordering Amru Ebn Al As to invade Egypt, and leaving proper orders otherwise, he returned to Medina. Yezid then attacked Cæsarea, but found it stronger than he expected. Obeidah advanced to Aleppo, where Youkinna and John, two brothers, governed under Heraclius. Youkinna resolved to oppose the Saracens, and accordingly set out at the head of 12,000 troops; and, meeting with a party of Arabs, defeated them; but, in the mean time, the people of Aleppo, afraid of the consequences, if their city should be taken by storm, submitted to Abu Obeidah. On this Youkinna posted home to Aleppo in a rage, ordered them to annul their treaty, and, finding them not ready to comply, killed 300 of them, among whom was his own brother John. He was soon after attacked by the Saracens, and defeated with the loss of 3000 men; after which he was besieged by them in the citadel, from which he made repeated sallies, and killed great numbers of the Saracens. Abu Obeidah, after continuing the siege four months longer, at last wrote Omar that the citadel was impregnable, and proposed raising it. But Omar sent him a fresh reinforcement, with seventy camels, and orders to continue it. Among these new troops was an Arab of a gigantic size, named Dames; who, by his size and his ingenuity, in raising seven men perpendicularly upon his own and each other's shoulders, overtopped the walls in the night, got quietly in, killed the sentinels and the guards; and admitting Khaled, with a fresh party of Saracens, soon got complete possession of the citadel. Youkinna and some of the principal officers turned Mahometans. After this Youkinna proposed to Obeidah to betray into his hand Azar, an important fort, where his own cousin Theodorus was commandant, by going to him at the head of 100 Arabs dressed as Greeks. But, this piece of treachery was detected, Theodorus having heard of the plan; and Youkinna and his pseudo-Greeks were made prisoners. But the fort being reduced, Youkinna recovered his liberty; but was soon after taken prisoner a second time, and carried before Heraclius at Antioch. Here again he dissembled, and pretended that he was still a Christian, and had only professed Mahometanism to serve the emperor the more effectually; upon which Heraclius appointed him governor of Antioch, which the traitor soon after delivered up to the Saracens. Heraclius, disconsolate by these successive losses, was put by the king of Ghassan upon the ungenerous plan of attempting to get rid of Omar by assassination. The king accord-

ingly employed Wathek Ebn Mosafer, a resolute young Arab of his own tribe, on this dangerous enterprise. Wathek got a fair opportunity, by finding Omar sleeping under a tree, but was deterred by a lion, who came and licked the caliph's feet till he awoke: on which Wathek, considering this as miraculous, confessed his intention, turned Mahometan, and was pardoned. Obeidah then despatched a body of 1300 troops, under Meisaral Ebn Mesroux, to the mountainous parts of Syria. The Greeks surrounded them, and would have cut them all off, had not Khaled appeared at the head of 3000 Arabs. On this the Greeks fled, leaving their tents and rich effects to the Arabs. But Abdallah Ebn Hodasa, one of Omar's chief favorites, was taken prisoner, and sent to Constantinople. Omar wrote to Heraclius, requesting his release, which Heraclius generously granted, and sent along with him many valuable presents, particularly a jewel of immense value, which Omar sold, and put the price in the public treasury, though requested to keep it for his own use. About this time a negotiation for peace took place; but, Omar insisting upon an annual tribute, it failed. Mean time many skirmishes took place, and many heroic acts of prowess were performed by individuals on both sides. But the chief success was on the side of the Saracens. Khaled took Manbi, Beraa, Balis, Raaban, Doulu, Korus (the ancient Cyrus), and several other fortified towns. Prince Constantine, the son of Heraclius, finding his troops diminishing daily, took the advantage of a tempestuous night to escape to Casarea; which was soon after invested by Amru. Mean time Youkinna, by his old system of treachery, took Tripoli, and seized fifty ships, which had just arrived from Crete and Cyprus with a supply of arms and provisions, not knowing that the Saracens were possessed of it. With these he set out for Tyre, where he deceived the people, pretending to come as a friend, and opened the gates to Yezid. Constantine, hearing at Cæsarea of these losses, set sail with his family and all his wealth, leaving the citizens to make their best terms with Amru. The surrender of Cæsarea was followed by that of all the other cities and forts in Syria, from the Mediterranean to the Euphrates, in the eighteenth year of the Hegira, or A. D. 640, six years after the expedition commenced. To the miseries of war were added those of violent storms of hail, an epidemical distemper, and at last a pestilence, all within the course of this year, which the Arabs style the year of destruction. By this last plague, the Saracens lost 25,000 men; among whom were Abu Obeidah, Yezid, Abu Sosian, Serjabil, and other eminent characters. Amru after this set out for Egypt, and on his way took Tarma, a town on the isthmus of Suez. He next attacked Mesr, the ancient Memphis, which, after a siege of seven months, was betrayed to him by Al Mokawkas, the governor. He then proceeded to Alexandria, which, after defeating the imperial army, he invested. During the siege Amru himself was taken prisoner, but protected from detection by one of his own slaves giving him a box on the ear, while he was answering some questions proposed by the gover-

nor, who generously dismissed him without ransom. Amru nevertheless reduced Alexandria soon after, which was followed by the loss of the whole kingdom of Egypt; while his general Okba Ebn Nafe made himself master of all the country of Africa, between Barka and Zoweilah, including also what now forms the piratical kingdom of Tripoli. Soon after this a great famine raged in Arabia, particularly at Medina, where Omar then resided. Omar therefore wrote to Amru to send him a supply of corn, which he accordingly sent on a train of loaded camels, the first of which entered Medina when the last left Alexandria. But, this method proving tedious and expensive, Omar ordered Amru to clear the Amris Trajanus, now named Khalis, which runs through Cairo, of the sand which choked it. This Amru did, and thus rendered the communication from Egypt to Arabia easy. The Saracens, thus successful in the west, were no less so in the east. The capture of Irak, and destruction of Hira, brought on a war with the Persians. See PERSIA. On the departure of Khaled, the command of the troops was left with Abu Obeid Ebn Masud, Mothanna Ebn Haretha, Amru Ebn Hasen, and Salit Ebn Kis. Abu Obeid, having passed a river, was killed, and his troops in great danger; Mothanna retreated, re-passed the river without loss, and fortified his camp till he received supplies; his troops in the mean time ravaging Irak on the side next the Euphrates. A body of 12,000 Persian horse was sent against these invaders, under Mahran. The Persians had the advantage at first, and the Arabs retired, but were soon brought back by Mothanna: the battle lasted from noon till sunset; at last Mothanna engaging Mahran in single combat laid him dead at his feet; on which the Persians fled. After this a powerful army was sent under the Persian general Rustam; but he was also killed, and his troops dispersed. Abu Musa, another Saracen general, defeated a formidable body under Al Harzaman, a noble Persian, at Athwaz. But of all Omar's generals, Saad Ebn Abu Wakkas was the most successful. With 12,000 troops he advanced to Kadesia, a city bordering on the deserts of Irak; where, having defeated an army of 120,000 Persians, he took the rich city of Al Madayen, with Yezdegerd's treasure; which was so rich that Saad took out of it 3,000,000,000 of dinars, or £2025,000,000 sterling; besides the royal plate, the crown and royal garments, another treasure of 10,000,000 of crowns, and a piece of silk tapestry sixty cubits square, so richly adorned with gold, silver, and jewels, that Omar having cut it in pieces, and distributed it among the Saracens, a small part of it, which fell to Ali's share, sold for 20,000 crowns. In the twenty-first year of the Hegira the Saracens, still unsatisfied with conquest, invaded Mesopotamia, under Aiyad Ebn Ganem, where the city of Edessa submitted at the first summons. He next marched to Constantina, the ancient Nicephorum, which he took by storm, as well as Dara, where he massacred the people; which so terrified the rest of the fortified towns that they all submitted. Mogheirah Ebn Saabah, another of Omar's generals, took Shiz, a town famed for the birth of Zerdusht,

the Persian philosopher, and overran the province of Adirbeitzan. He also reduced Armenia, and penetrated into Cappadocia. Saad the same year took Athwas, the capital of Khuisistan, or Chuisistan, the ancient Susiana, and reduced the whole province; while Al Nooman conquered the greatest part of Chorasana. But, while Omar's troops were thus overrunning the finest countries in the world, a period was put to his life and conquests by a Persian, named Abu Lulua, who stabbed him thrice in the belly, while performing his devotions at Medina, because Omar had refused to remit a tribute payable for the exercise of his religion. The Arabs rushed upon the assassin, but before they could get him overpowered he murdered seven of them. Omar languished three days, and died in the twelfth year of his reign.

After the murder of Omar, Othman Ebn Assan was chosen caliph; and Ali was still kept out of his right, though he had not only a better title, but was in fact the most virtuous and best character, and the bravest warrior of that period. Othman was inaugurated in the twenty-fourth year of the Hegira, or A. D. 645. He began his reign by sending Al Mogheirah to complete the conquest of Amadan; which he soon accomplished, and also reduced Bira, a strong fort of Mesopotamia. Another army, under Abdallah Ebn Amur, was sent into Persia to reduce the rest of Yezdegerd's dominions; which was done so completely that Yezdegerd was obliged to fly to Segestan, and leave Persia altogether. See PERSIA. In the twenty-seventh year of the Hegira Moawiyah reduced the islands of Cyprus and Aradus; and took Ancyra and Rhodes, where he broke in pieces the famous colossus, and sold the metal of it to a Jew of Edessa. Another of Othman's commanders entered Isauria, where he committed dreadful depredations, plundering the towns and villages, murdering many of the inhabitants, and carrying off 5000 prisoners. In the thirty-first year of the Hegira Hebib, entering that part of Armenia which was still unconquered, defeated a body of the imperial troops, pursuing them to Mount Caucasus, and laying waste the country; and Abul Abar, the admiral of the Saracens, defeated the emperor Constans by sea, on the coast of Lycia. This battle was so bloody that the sea was dyed with blood. But, while Othman's arms were thus successful abroad, a dangerous conspiracy was forming against him at home. The accusations against him were trifling and superstitious. To mention but one—'he had presumed to sit on the top of Mahomet's pulpit, whereas Abu Beer had only sat on the highest step, while Omar was content with the lowest.' Othman, however, to all these formidable accusations pleaded guilty, and promised amendment; but this only increased the insolence of the rebels. By the influence of Ali, however, tranquillity was apparently restored. But it was soon interrupted by Ayesha, one of Mahomet's widows, who, by a scheme of villany worthy of the widow of the grand impostor, accomplished the destruction of the caliph. Wishing to raise her favorite Telha to the caliphate, she prevailed on Merwan, the caliph's secretary, to write to the prefect of Egypt,

enjoining him to put to death Mahomet Ebn Abu Beer, with whom the letter was sent, and who was to have been his successor. This letter Merwan took care should be discovered, and Mahomet, taking it for genuine, published the caliph's cruelty all over these countries. He then marched with a body of rebels to Medina, and besieged the caliph in his palace; and, notwithstanding Othman's protestations of innocence, nothing but his death could satisfy the rebels. Othman applied to Ali for assistance, who sent his two sons Hassan and Husein, who defended the palace with great courage, till, water failing, they were obliged to abandon it; upon which the rebels entered and murdered the caliph, in the eighty-second year of his age, and twelfth of his reign. His body remained three days unburied, when it was thrown into a hole without any solemnity.

Mahomet's omission of naming a successor to the caliphate is totally unaccountable; and, as we have seen, threw the dignity out of his family during three successive reigns. His son-in-law Ali repeatedly claimed the succession, and doubtless had the best right, yet always peaceably submitted to the election of other persons. The Arabs, by their giving the preference to others, seem to have been influenced by no motive whatever but this republican idea, that it should not be established as a principle that the apostleship or caliphate should be reckoned an hereditary dignity. On the death of Othman, however, Ali's amiable qualities triumphed over all opposition, and he was unanimously elected. Besides his other popular qualities, he was a man of such unparalleled courage and strength, that he never declined a combat to which he was challenged, nor ever failed to come off victor; whence he was styled by the Arabs The lion of God. Great as Ali's merits were, however, he was not without his enemies. Among these Mahomet's widow, Ayesha, was the most conspicuous. At the time of Ali's inauguration she was at Mecca, where she possessed a considerable share of power. She very early began to plot against him, and Ali raised up against himself another very powerful enemy, by imprudently dismissing Moawiyah from his government of Syria, who, whatever malversations he was guilty of, should not have been displaced till Ali's government was more firmly established. The consequence was that Moawiyah was immediately proclaimed caliph by his troops, and thus the Saracens were divided into two factions; the one under Moawiyah and Ayesha, adhering to the house of Ommyia, to which Othman and Moawiyah belonged, the other to Ali. The former were called Motazalites, or Separatists; the latter Sephalites. Ali, finding a strong party forming against him, applied to the Koreish, to raise an army against Ayesha, who had begun hostilities and taken the city of Basra. Ziyad Ebn Hantelah, the Ansars, and a great number of people joined Ali. At Arrabah he was joined by many other parties; from Medina he got a large supply of horses, and from Cufa 8000 men. He then advanced to Basra, attacked and defeated the troops of Ayesha, and took the prophet's widow prisoner, though her troops were so zealous

in her defence, that seventy men had their hands cut off successively, who held her camel by the bridle. Ali, however, treated her very kindly, and at first set her at liberty, but afterwards confined her to her house at Medina, to prevent her from interfering farther in state affairs. After this victory Ali had no more enemies to contend with in Arabia, Egypt, Irak, Persia, or Chorasson. But a strong party of rebels still remained in Syria headed by Moawiyah, who was soon joined by Amru Ebn Al Ats. Ali, after in vain attempting to bring the rebels to an accommodation, entered Syria with 70,000 men, while that of Moawiyah amounted to 80,000. By reinforcements the former was increased to 90,000, and the latter to 120,000. The armies came within sight of each other in the end of the thirty-sixth year of the Hegira. The first month of the thirty-seventh was spent in fruitless negotiations; after which they fought in different parties, without hazarding a general engagement. These battles lasted about 110 days, during which Moawiyah lost 45,000 men and Ali 25,000. Among these was Ali's general of horse, Ammar Ebn Yazar, who was above ninety years old, and had been much esteemed by Mahomet, and was one of his companions. The loss of him so enraged Ali, that he challenged Moawiyah to fight him in single combat. This, however, the coward refused, though Amru urged him to accept. The battle was then renewed with great fury; Moawiyah's troops were pushed to their camp, which would certainly have been taken, had not Amru retrieved Moawiyah's affairs, when just on the brink of destruction, by a stratagem. He ordered some of his men to fix copies of the Koran to the points of their lances, and carry them to the front of the battle, crying out, 'This is the book that ought to decide all differences; this is the book of God, that prohibits the effusion of muslimans blood.' Ali's troops on this threw down their arms, and thus was decisive victory wrested from him when almost gained. The two parties then agreed to choose each his arbitrator. Moawiyah chose Amru, but Ali was again shuffled out of his right, the troops of Irak naming for him Abu Musa, a man who had already betrayed him. The consequence was that Ali was deposed; to which sentence he submitted, but without laying down his arms. After this Ali retired to Cufa, where 12,000 of his troops, called Kharejites, pretending to be offended with the step he had taken, revolted. They insisted that he ought not to keep the peace with Moawiyah, but pursue him without mercy. But Ali replied that, as he had given his word, he must keep it. They then chose Abdallah Ebn Waheb their general, who appointed for their rendezvous Naharwan, a town between Waset and Bagdad, four miles east of the Tigris, where they collected an army of 25,000 men. Ali at last marched against them, but previously proclaimed quarter and pardon to all who should return to his standard. This measure soon reduced Abdallah's troops to 4000 men, with whom he rushed upon Ali's forces, who cut them all to pieces except nine. Had Ali marched immediately against Moawiyah, he had probably reduced him entirely; but he seems to have considered the agreement as binding,

and therefore acted only on the defensive. At last the Kharejites, wishing to get rid of Moawiyah, Amru, and Ali, sent assassins to murder all the three. Moawiyah was wounded, but recovered; Amru's secretary was killed by mistake; but Ali was wounded with a poisoned sword, which proved mortal. The assassin was taken, and would have been pardoned had Ali recovered; but he ordered him to be put to death if he died, 'that he might accuse him before God.' Even in this, however, Ali showed his clemency, by ordering him to be killed at one blow, without torture. Thus fell Ali, the most virtuous of all the caliphs, after he had reigned nearly five years, and lived sixty-three.

Hassan the son of Ali, who inherited all his father's virtues except his courage, was declared caliph immediately upon Ali's death. Moawiyah soon showed his hostile intentions, and Hassan's friends pressed him to declare war immediately; but, though they prevailed with him to take the field, his disposition was too mild and peaceable: and he himself, sensible of his incapacity to dispute the empire with Moawiyah, in spite of the remonstrances of his friends, resigned it to that villain; who some years after caused him to be poisoned by his own wife. Moawiyah, now sole master of the empire, resolved to reduce the Kharejites, who were still rebellious. In this service he offered Hassan the command of the army, but that prince declined it. He then sent the Syrian troops against them, but they were defeated. At last the Cufans were employed, who quickly put an end to the rebellion. In the forty-eighth year of the Hegira the caliph sent his son Yezid, with a powerful army, to besiege Constantinople. In this expedition he was accompanied by three or four of those associates of Mahomet whom he had dignified with the title of his companions, who, notwithstanding their great age, were prompted by zeal to undergo incredible fatigues. But, in spite of the zeal of these veterans, the expedition proved unsuccessful; and in it one of them, viz. Abu Ayub, who had been with Mahomet at the battles of Bedr and Ohod, lost his life. His tomb is still held in the highest veneration by all Mussulmans. In the fifty-fourth year of the Hegira the Saracens made an irruption into Bukharia, and defeated the Turkish army, killing great numbers of them. About this time a treaty was concluded between the emperor Constantine IV. and the Saracens, whereby the latter were allowed to keep the territories they had seized, but bound to pay 3000 lbs. of gold annually, fifty slaves, and fifty good horses. This treaty was to last thirty years. In the fifty-fifth year of the Hegira, Moawiyah conferred the government of Chorasan upon Saad, Othman's grandson, who soon after passed the Jihun, or Amu (the ancient Oxus), and advanced with a body of troops to Samarcand, which instantly surrendered to him; soon after which he defeated an army of Usbeck Tartars, and marched directly to Tarmud, which also surrendered. The fifty-seventh year of the hegira was remarkable for nothing but vast swarms of locusts which did incredible damage in Syria and Mesopotamia. In the fifty-eighth Ayesha, Ma-

homets widow died, and in the sixtieth Moawiyah himself, after having reigned from Hassan's resignation, nineteen years five months and five days. He was interred at Damascus.

On Moawiyah's death his son Yezid was immediately proclaimed, April 7th, 680. He wrote to Al Walid, the governor of Medina, to seize Hosein, the remaining son of Ali, and Abdallah Ebn Zobeir, if they refused to acknowledge his right; but they escaped to Mecca; on which Jediz displaced Al Walid, and appointed Amru Ebn Saad governor in his stead. Amru immediately sent against Abdallah his own brother Amer, who mortally hated him; but Abdallah engaged and took him prisoner, which raised his fame at Medina. Mean time Hosein, as the only heir of Ali, became very popular at Mecca, Medina, Irak, and Cufa; and the Cufans even raised an army of 18,000 men in his favor; and promised to raise 120,000 more; but all Hosein's hopes were soon frustrated, and himself killed in an engagement with Obeidallah. Yezid did himself honor by treating Hosein's family with kindness. In the sixty-first year of the Hegira Yezid appointed Salem Ebn Ziyad governor of Chorasan, who soon after made an irruption into the Turkish territories. He sent a body of troops to Khowarazm, the capital of the Tartars, from which he extorted 50,000,000 of money: whence advancing to Samarcand, he compelled the people of that city also to pay him an immense sum. Meantime Abdallah Ebn Zobeir, being, by the death of Hosein, at the head of the house of Hashem, began to aspire to the caliphate, and was proclaimed caliph at Medina, on the arrival of Hosein's family. He then expatiated on Hosein's tragical death, and accused the Cufans of being the most perfidious villains on earth. This pleased the citizens of Mecca and Medina, who flocked to him in crowds, so that he soon had a great army. Yezid, hearing of all this, swore he would have him in chains, and sent a silver collar for him to Merwan, governor of Medina. At last the people of Medina renounced their allegiance to Yezid, and formally deposed him in a whimsical but expressive manner, throwing aside their turbans, shoes, &c., and saying, 'I lay aside Yezid as I do this turban, or shoe, &c. They then banished Yezid's governor, and all his friends, who, to the number of 1000, took refuge in the house of Merwan Ebn Al Haken, where, being besieged by Abdallah's party, they sent to Yezid for assistance, who detached a body of troops under Moslem Ebn Okba to Medina for that purpose. The people of Medina, on this, allowed Yezid's friends to withdraw; but Moslem advanced at the head of 5000 foot and 12,000 horse, and summoned the town to surrender; which being refused, the garrison made a vigorous defence, but, the principal officers being killed, the city was taken by storm; all the men who had borne arms were massacred, the women ravished, and the city pillaged. Ali alone, the son of Hosein, was treated with respect. By this severity Moslem incurred the anathema pronounced by Mahomet against those who should pillage Medina. After this Moslem proceeded to Mecca, where Abdallah had retired; but he died by the road, and the command devolved

upon Hosein Ebn Thamir, who advanced to Mecca and besieged it forty days, battering it with such fury that he beat down its famous temple; and it must soon have shared the fate of Medina had not the news of Yezid's death stopped further operations. Yezid died in his thirty-ninth year, the sixty-second of the Hegira, or A. D. 684, having reigned only three years and eight months.

Yezid was succeeded by his son Moawiyah II., who was proclaimed caliph at Damascus on his father's death; but, being of a weak constitution, he resigned the crown in six weeks, and died soon after. Great commotions followed. Obeidallah was become so unpopular by his cruelties, particularly by the death of Hosein, that he was obliged to fly into Syria; on which his house was plundered by the mob. In this confusion Abdallah might have easily secured the caliphate, had he not, with equal imprudence and cruelty, ordered the house of Ommiyah to be exterminated. This ruined his affairs; for they being obliged to fly for safety, Merwan was proclaimed caliph at Damascus, and thus the Saracen empire was once more rent into two factions. A battle soon ensued between Dahak Ebn Kais, who favored Abdallah, and the troops of Merwan, in which Dahak was defeated and killed, and thus Merwan became master of Syria. Soon after he advanced with a body of troops to Egypt, but sent before him Amru Ebn Said with a detachment, who defeated Abdalrahman, Abdallah's lieutenant, in several brisk actions, till he at last surrendered the whole country to Merwan, for a sum of money, and retired to Hedsjaz. The Syrian troops immediately took possession of the country; and Merwan, having appointed his son Abdalazziz over Egypt, returned to Damascus. He then sent Amru Abn Said against Musab, Abdallah's brother, whom he totally defeated. In the sixty-fifth year of the Hegira the Cufans, pretending remorse for their treachery to Hosein, raised an insurrection against both caliphs, and assembled 16,000 men under Soliman to avenge the death of Hosein. Al Mokhtar, who had served under Abdallah, offered to serve instead of Soliman, who he said was incapable of executing the enterprise. This being refused, he drew off 2000 from Soliman, while other 10,000 left him. So enthusiastic, however, was Soliman in the affair, that he set forward to Syria with the remaining 4000, who were all cut to pieces by Obeidallah, who was at the head of 20,000. Soon after this died the caliph Merwan, after a short reign of eleven months, being poisoned by Seinab, Moawiyah's widow, whom he had married.

Merwan was succeeded by his son Abdalmalec, who released Al Mokhtar, who had been imprisoned by the governor of Cufa. Al Mokhtar soon after hearing that Abdallah had imprisoned the whole descendants of the celebrated caliph Ali, and was going to put them to death, sent a body of 750 horse to Mecca under Abu Abdalla for their relief, which they accomplished, and took Abdallah himself prisoner, two days before they were all to have been murdered. After this they settled on a mountain near Mecca with a body of 4000 men. Al Mokhtar next attacked

and killed Obeidallah; but was soon after defeated and slain by Musab, and all his men to the number of 7000, though they surrendered at discretion, were also slain for their former outrages. Next year, the sixty-eighth of the Hegira, the Azarakes made an irruption into Irak, penetrating to Cufa and Al Madayen, and committing the most horrid cruelties, murdering all they met with, and sparing neither age nor sex. The governor of Mesopotamia carried on a war with them for eight months. Musab sent against them Omar Ebn Abdallah, who gave them a great overthrow, slaughtered great numbers of them, and pursued the rest as far as Ispahan and Kermand. Returning a second time Omar totally defeated and dispersed them. In the sixty-ninth year of the Hegira Abdalmalec marched against Musab. In his absence he left Amru Ebn Said governor of the city, who immediately seized it for himself; on which Abdalmalec returned. After some skirmishes between the caliph's troops and those of Amru, a treaty was agreed upon; which Abdalmalec broke immediately after by murdering Amru with his own hand. Upon this Yahyah, Amru's brother, at the head of 1000 slaves, attacked the palace and killed the guards, but were quelled afterwards, partly by money. In the seventieth year of the Hegira the Greeks made an irruption into Syria; and the caliph was obliged to pay a tribute of 1000 dinars per day, and sent annually 365 slaves and 365 horses to Constantinople. The revenues of Cyprus, Armenia, and Heria, were agreed to be divided. Abdalmalec next marched against Musab, whom he defeated and killed through the treachery of his troops. The caliph went to Cufa, where all ranks submitted and swore to him. He then ordered money to be distributed among the people, and gave a splendid entertainment to all his new subjects, from which even the meanest were not excluded. During this entertainment Musab's head was presented to the caliph; on which one of the company said, 'I saw Hosein's head in this same castle presented to Obeidallah; Obeidallah's to Al Mokhtar; Al Mokhtar's to Musab; and now at last Musab's to yourself.' The caliph was so struck with this remark, that, to divert the ill omen, he ordered the castle to be instantly demolished. Abdallah Ebn Zobier, hearing of the defeat and death of his brother, put Mecca in a proper state of defence. Abdalmalec, on his return from Damascus, appointed his brother Bashar governor of Cafu, and Khaled Ebn Abdallah governor of Basra; who imprudently displaced Al Mohalleb, one of the greatest generals of the age, from the command of the army, and put in his place Abdalaziz, a man much inferior. The barbarous Azarakes no sooner heard of this than they attacked Abdalaziz, entirely defeated, and took his wife prisoner. A dispute arising among them about the price of the lady, one of them, to end it, cut off her head. On this disaster Khaled was ordered to replace Al Mohalleb, which he no sooner did than they in conjunction attacked the Azarakes, forced their camp, and completely defeated them. In the seventy-second year of the Hegira Abdalmalec prepared to invade Hedsjaz, and appointed Al Hejaj, one of his bravest ge-

nerals, commander. After several skirmishes, wherein Abdallah's troops had the worst, most of Abdallah's friends, two of his sons, and 10,000 inhabitants of Mecca, deserted him. In this extremity he consulted with his mother, whether he should submit to the caliph or not; but she, being a high-spirited woman, the daughter of Abu Becr, the second caliph, advised him against it; whereupon, in a fit of despair, he plunged into the midst of his enemies without his usual coat of mail, and, after slaughtering great numbers of them, was killed. Al Hejaj cut off his head and fixed his body to a cross; which had a strong odor of musk for several days after, his mother having given him a draught in which a pound of musk was infused, to inspire him with courage. By the reduction of Mecca Abdalmalec was now sole master of the empire, but he suffered a great loss the next year, having an army of 100,000 men cut off by the Khazarians in Armenia. The governor, however, marched against them soon after at the head of 40,000 chosen troops, penetrated into the heart of Armenia, defeated a large body of them, and drove them into their temples, to which he set fire. One of his generals also defeated 80,000 Khazarians at the Caspian gates, killed a great number of them, and compelled the rest to turn Mahometans. Al Hejaj, for his services, was made governor of Medina, and then of Irak, Chorasán, and Sejestan, in all which places he behaved with the greatest cruelty, and yet he was continued in these governments till he died. In the seventy-sixth year of the Hegira Saleh Ebn Marj, and Shebib Ebn Seid, a Kharejite, rebelled against the caliph. Saleh was proclaimed emperor of the faithful at Daras in Mesopotamia. At first they were successful, and defeated even Al Hejaj himself; but at last were defeated and killed, and their troops slaughtered and dispersed. In the seventy-sixth year of the Hegira Abdalmalec erected the first mint in Arabia, and struck gold and silver coins. Before this period their dinars or gold coins had Greek inscriptions, and their dirhems or silver coins Persian. The caliph now struck dirhems with the Arabic words, Alla Samad, i. e. God is eternal, upon them; which offended some superstitious Mussulmans, who thought the name of God would thus be profaned by the touch of the unclean. In the seventy-seventh year of the Hegira, the Saracens made an incursion into the imperial territories, when Lazica and Bernucium were betrayed to them. In the seventy-eighth they over-ran Africa Proper, and demolished the city of Carthage. They were driven out by John the Patrician, but, returning with a superior force, they made John fly to Constantinople. In the year seventy-nine Abdalrahman rebelled in Persia; and drove the khan or emperor of the Turks, Tartars, and Moguls, out of that country; but in eighty, Heraclius, the Greek general, penetrated into Syria, as far as Samosata, killed 200,000 Saracens, and ravaged the country dreadfully. At last, after about eighty battles, or as some say 100, Abdalrahman was defeated and killed by Al Hejaj. In the eighty-third year of the Hegira the Armenian nobility revolting, drove the Arabs out of that province; but Mahomet, a general

of the caliph's, entering it with a powerful army, got the authors of the revolt into his hands, and caused them to be burnt alive. The Saracens then invaded Cilicia, under one Azar, but were, to the number of 10,000 the one year, and 12,000 the next, cut in pieces by Heraclius, and the rest forced to fly. In the year eighty-six Abdalmalec died, after a reign of twenty-one years.

Abdalmalec was succeeded by his son Al Walid, who greatly extended the Saracen empire. In the first year of his reign one of his generals passed the Jihun, and defeated a numerous army of Turks and Tartars. He then over-ran and reduced Sogdiana, Bagrass, Shash, Targana, and the whole immense tract called Mawaralnahar, or Great Bukharia. He also conquered the khan of Khowarazm, and forced him to pay an annual tribute of 2,000,000 of dinars. Another of his generals, called Mahomet, made an irruption into India, and conquered a great part of that country. He also subdued the kingdom of Al Sind, between Persia and India; when Derar the king of it was defeated and killed, and had his head cut off by Mahomet. In the ninetieth year of the Hegira the Saracens made an irruption into Cappadocia, defeated the imperial army, and took the city of Tyana. In the two following years they repeated their incursions under Othman, took several cities, and carried off numbers of slaves. In the year ninety-three, or A. D. 712, Tarek Ebn Zarka, made a descent on Spain, defeated Roderick, the last king of the Goths, reduced Toledo, and over-ran a great part of the kingdom. Being joined by Musa, commander of the African Moslems, they took most of the forts and subdued the whole country. In these expeditions they acquired immense spoils, particularly a very rich table, called Solomon's table, of gold, silver, and pearls, and standing on 365 feet. In ninety-four Tarick landed a body of 12,000 men at Gibraltar, with which he plundered Hispania Bætica, and great part of Lusitania. Roderick's troops being new raised were unable to resist these hardy invaders. Another Saracen general entered Pisidia, ravaged the country, and took Antioch. In the year ninety-five Hejaj died, after a cruel government of twenty years; during which period he killed 120,000 men, and suffered 50,000 men and 30,000 women to perish in prisons. This year also the Saracens completely defeated Roderick king of the Goths, who was killed in the battle; and Tarif amassed immense riches. In the east these plunderers were equally successful. Moslema ravaged the whole province of Galatia, carrying off rich spoils, and many prisoners. But, while Al Walid was preparing to invade Constantinople, he died in the sixty-ninth year of the Hegira.

The caliph Al Walid was succeeded by his brother Soliman. This year the Saracen conquests on the east side were increased by the reduction of Tabrestan and Jurgon or Georgia. In Spain also the city of Toledo, which had revolted, was reduced, and Cæsar-Augusta, now Saragossa, as well as several others. The next year Moslema set out for Constantinople, which he besieged without success till the ninety-ninth year of the Hegira; when he was obliged to re-

turn, after having lost before it 120,000 men. The soldiers were reduced to the greatest extremities of hunger, being forced to live upon hides, he roots and bark of trees, the most noisome animals, and even the dead bodies of their companions. This year also (the ninety-ninth) the caliph Soliman died. According to some, he was poisoned by Yezid his brother, governor of Persia, who was displeas'd with his having appointed his cousin-german Omar Ebn Abdalaziz as his successor, to the exclusion of himself. According to others, he died of an indigestion; which is not to be wondered at, if, as those authors say, he used to devour 100lbs. of meat every day, and dine very heartily after eating three lambs roasted for breakfast. In the latter part of his reign, the Moors were by no means successful in Spain; the kingdom of Navarre being founded at this time by Pelagius, or Pelayo, whom the Arabs were never able to reduce. The new caliph Omar Ebn Abdalaziz was by no means of a martial character; but is said to have been very pious, and possessed of very amiable qualities. He suppressed the usual malediction, which was solemnly pronounced by the caliphs of the house of Ommiyah against the house of Ali; and always showed great kindness to the latter. He was poisoned by Yezid, after a short reign of two years and five months. Concerning Yezid II., the successor of Omar, we find very little worth mentioning. He did not long enjoy the dignity he had so iniquitously purchased, dying after a reign of about four years. He died of grief for a favorite concubine named Hababah, who was accidentally choked by a large grape which stuck in her throat. Yezid was succeeded by his brother Hesham, who ascended the throne in the 105th year of the Hegira. In the second and third years of his reign several incursions were made into the imperial territories, but generally without success. In the 109th year Moslema drove the Turks out of Armenia and Adirbeitzan, and again confined them within the Caspian gates. The next year he obliged them to take an oath that they would keep their own country; but this they soon violated, and were again driven back by Moslema. About this time also the Arabs, having passed the Pyrenees, invaded France to the number of 400,000, including women and slaves, under the command of one Abdalrahman. Having advanced to Arles, upon the Rhone, they defeated a large body of French that opposed them: and, having also defeated count Eudo, they pursued him through several provinces, wasted the country with fire and sword, and took the city of Tours, most of which they reduced to ashes. Here, however, a stop was put to their devastations by Charles Martel; who, coming up with them near Tours, engaged them for seven days together, and at last gave them a total overthrow. He took all their baggage and riches; and Abdalrahman, with the shattered remains of his army, reached the frontiers of Spain with difficulty. The following year also the Arabs were overthrown at Illiberis, scarcely any of them escaping. To make amends for this bad fortune, however, the caliph's arms were successful against the Turks, who had again invaded some of the

eastern provinces. In the 125th year of the Hegira died the caliph Hesham, after a reign of nineteen years seven months and eleven days. He was succeeded by Al Walid II., who is represented as a man of a most dissolute life and was assassinated the following year on account of his professing Zendicism, a species of infidelity nearly resembling Sadducism.

Al Walid II. was succeeded by Yezid III., the son of Al Walid I., who died of the plague after a reign of six months; and was succeeded by Ibrahim Ebn Al Walid, an imprudent and stupid prince. He was deposed in the 127th year of the Hegira by Merwan Ebn Mahomet, the governor of Mesopotamia; who gave out, as an excuse for his revolt, that he intended to revenge the murder of the caliph Al Walid II. He was no sooner seated on the throne, than the people of Hems rebelled against him. Against them the caliph marched with a powerful army, and summoned them to surrender. They assured him that they would admit him into their city; and, accordingly, one of the gates being opened, Merwan entered with about 300 of his troops. The men that entered with him were immediately put to the sword; and the caliph himself escaped with great difficulty. However, he afterwards defeated them in a pitched battle, put a great number of them to the sword, dismantled the city, and crucified 600 of the principal authors of the revolt. The inhabitants of Damascus soon followed the example of those of Hems, and deposed the caliph's governor; but Merwan marched to Damascus with great celerity, entered the city by force, and punished the authors of the revolt. Peace, however, was no sooner established at Damascus, than Soliman Ebn Hesham set up for himself at Basra, where he was proclaimed caliph by the inhabitants. Here he assembled an army of 10,000 men, with whom he marched to Kinnissin, where he was joined by vast numbers of Syrians. Merwan, receiving advice of Soliman's rapid progress, marched against him with all the forces he could assemble, and entirely defeated him. In this battle Soliman lost 30,000 men, so that he was obliged to fly to Hems, where 900 men took an oath to stand by him to the last. Having ventured, however, to attack the caliph's forces a second time, he was defeated, and again forced to fly to Hems. But, being closely pursued by Merwan, he constituted his brother Said governor of the city, leaving with him the shattered remains of his troops, and himself fled to Tadmor. Soon after his departure Merwan appeared before the town, which he besieged for seven months; during which time he battered it incessantly with eighty catapults. The citizens, being reduced to the last extremity, surrendered, and delivered Said into the caliph's hands. In consideration of this submission, Merwan pardoned the rebels, and took them all under his protection. About the same time, another pretender to the caliphate appeared at Cufa; but Merwan took his measures so well that he extinguished this rebellion before it could come to any height. Notwithstanding the success, however, that had hitherto attended Merwan, a strong party was formed against him in Khorasan by the house of

Al Abbas. The first of that house that made any considerable figure was named Mahomet, who flourished in the reign of Omar Ebn Abdalaziz. He was appointed chief of the house of Al Abbas, about the 100th year of the Hegira; and is said to have prophesied, that after his death, one of his sons named Ibrahim should preside over them till he was killed, and that his other son Abdallah, surnamed Abul Abbas Al Saffah, should be caliph, and exterminate the house of Ommiyah. Upon this Al Saffah was introduced as the future sovereign, and those present kissed his hands and feet. After the decease of Mahomet, his son Ibrahim nominated as his representative in Khorasan one Abu Moslem, a youth of nineteen years of age; who beginning to raise forces in that province, Merwan despatched against him a body of horse under Nasr Ebn Sayer; but that general was entirely defeated by Abu Moslem, and the greatest part of his men killed. The next year (the 128th of the Hegira) Merwan made vast preparations to oppose Abu Moslem, who after the late victory began to grow formidable. Merwan gained two victories over some of Ibrahim's generals; but, the year following, Abu Moslem brought such a formidable army into the field that the caliph's troops could not make head against them; his officers in Khorasan therefore were obliged either to take an oath of allegiance to Ibrahim, or to quit the province within a limited time. In the 130th year of the Hegira the caliph's general Nasr, having drawn together another army, was again defeated by Khatabah, another of Ibrahim's generals, and forced to fly to Raya, a town of Dylam, or of Khorasan. The next year Ibrahim, having foolishly taken it into his head to go on a pilgrimage to Mecca, attended by a numerous retinue splendidly accoutred, was seized and put to death by Merwan: and the year following Abul Abbas was proclaimed caliph at Cufa. As soon as the ceremony was ended, he sent his uncle Abdallah with a powerful army to attack Merwan's forces that were encamped near Tubar, at a small distance from Mosul, where that caliph was then waiting for an account of the success of his troops under Yezid governor of Irak against Khataba, one of Al Saffah's generals. Khataba, receiving advice of Yezid's approach, immediately advanced against him, and entirely defeated him; but in crossing the Euphrates, the waters of which were greatly swelled, he was carried away by the current and drowned. The pursuit, however, was continued by his son Hamid, who dispersed the fugitives in such a manner that they could never afterwards be rallied. At the news of this disaster, Merwan was at first greatly dispirited; but, soon recovering himself, he advanced to meet Abdallah. In the beginning of the battle, the caliph happened to dismount; and his troop perceiving their sovereign's horse without his rider, concluded that he was killed, and therefore immediately fled; nor was it in the power of the caliph himself to rally them again, so that he was forced to fly to Damascus; but the inhabitants of that city, seeing his condition desperate, shut their gates against him. Upon this he fled to Egypt, where he maintained himself for some time; but was at last attacked

and killed by Saleh, Abdallah's brother, in a town of Thebais called Busir Kurides. The citizens of Damascus, though they had shamefully deserted Merwan, refused to open their gates to the victors; upon which Saleh entered the city by force, and gave it up to be plundered for three days by his soldiers.

By the total defeat and death of Merwan, Al Saffah remained sole master of the Saracen throne; but no very remarkable events happened during his reign; only he massacred great numbers of the partisans of the house of Ommiyah; and Constantine Copronymus, taking advantage of the intestine divisions among the Saracens, ravaged Syria. The caliph died of the small pox in the 136th year of the Hegira, in the thirty-third year of his age; and was succeeded by his brother Al Mansur. In the beginning of Al Mansur's reign hostilities continued against the house of Ommiyah, who still made resistance, but were always defeated. Abdallah, however, the caliph's uncle, caused himself to be proclaimed caliph at Damascus; and having assembled a powerful army in Arabia, Syria, and Mesopotamia, advanced with great expedition to the banks of the Masius near Nisibis, where he encamped. Al Mansur, being informed of this rebellion, despatched Abu Moslem against Abdallah. This general, having harassed him for five months together, at last brought him to a general action; and, having entirely defeated him, forced him to fly to Basra. Notwithstanding all his services, however, Abu Moslem was soon after ungratefully and barbarously murdered by Al Mansur, on some ridiculous pretences of being deficient in respect towards him. After the death of Abu Moslem, one Sinan, a Magian, or adorer of fire, having made himself master of that general's treasures, revolted against the caliph; but he was soon defeated by Jamhur Ebn Morad, who had been sent against him with a powerful army. In this expedition Jamhur having acquired immense riches, the covetous disposition of the caliph prompted him to send a person express to the army to seize upon all the wealth. This so provoked Jamhur that he immediately turned his arms against his master; but was soon defeated, and entirely reduced. The following year (the 139th of the Hegira) one Abdalrahman, of the house of Ommiyah, after the entire ruin of that family in Asia, arrived in Spain, where he was acknowledged caliph; nor did he or his descendants ever afterwards own subjection to the Arabian caliphs. The 140th year of the Hegira is remarkable for an attempt to assassinate the caliph. This attempt was made by the Rawandians; an impious sect, who held the doctrine of metempsychosis or transmigratio. They first offered Al Mansur divine honors, by going in procession round his palace, as the Moslems were wont to do round the Caab; but the caliph, highly incensed at this impiety, ordered 100 of the principal of them to be imprisoned. These, however, were soon released by their companions; who then went in a body to the palace with an intention to murder their sovereign; but he being a person of uncommon bravery, though he was surprised with very few attendants, mounted a mule, and ad-

vanced towards the mutincers with an intention to sell his life as dearly as possible. In the mean time, Maan Ebn Zaidat, one of the chiefs of the Omniyan faction, who had concealed himself to avoid the caliph's resentment, sallied out of his retreat, and, putting himself at the head of Al Mansur's attendants, charged the rebels with such fury that he entirely defeated them. This generosity of Maan was so remarkable that it afterwards passed into a proverb. On this occasion 6000 of the Rawandians were killed on the spot, and the caliph delivered from instant death; he was, however, so much disgusted with the Arabs, on account of this attempt, that he resolved to remove the capital of his empire out of their peninsula; and accordingly founded a new city on the banks of the Tigris, named Bagdad. The foundations of it were laid in the 158th year of the Hegira, and finished four years after. On the removal of the seat of government to Bagdad, the peninsula of the Arabs seems all at once to have lost its consequence, and in a short time the inhabitants seem even to have detached themselves from the jurisdiction of the caliphs; for in the 156th year of the Hegira, while Al Mansur was yet living, they made irruptions into Syria and Mesopotamia, as if they had designed to conquer these countries over again for themselves; and though the Arabs, properly so called, continued nominally subject to the caliphs of Bagdad till the abolition of the caliphate by Hulaku the Tartar, yet they did not become subject to him when he became master of that city.

From the building of the city of Bagdad to the death of Al Mansur nothing very remarkable happened, excepting some irruptions made into the territories of the Greeks, and by the Arabs into some of the caliph's other territories. In the 157th year of the Hegira, also, a grievous famine was felt in Mesopotamia, which was quickly after followed by a plague that destroyed great numbers. This year likewise, the Christians, who had been all along very severely dealt with by Al Mansur, were treated with the utmost rigor by Musa Ebn Mosaab the caliph's governor; every one who was unable to pay the enormous tribute exacted of them being thrown into prison. In the 158th year of the Hegira, the caliph set out from Bagdad to perform the pilgrimage to Mecca; but, being taken ill on the road, he expired at Bir Maimun, whence his body was carried to Mecca; where, after 100 graves had been dug, that his sepulchre might be concealed, he was interred, having lived, according to some, sixty-three, according to others, sixty-eight years, and reigned twenty-two. He was extremely covetous, and left in his treasury 600,000,000 dirhems, and 24,000,000 dinars. He is reported to have paid his cook by assigning him the heads and legs of the animals dressed in his kitchen, and to have obliged him to procure at his own expense all the fuel and vessels he had occasion for. When Al Mansur expired at Bir Maimun, he had only his domestics and Rabi his freed man with him. The latter, for some time, kept his death concealed, and pretended to have a conference with him; in which, as he gave out, the caliph commanded him to exact an oath of allegiance to Al Mohdi his son, as his

immediate successor, and to Isa Ebn Musa his cousin german, as the next apparent heir to the crown. He then despatched a courier to Bagdad with the news of Al Mansur's death: upon which Al Mohni was unanimously proclaimed caliph. Isa Ebn Musa, however, no sooner heard this news than he began to entertain thoughts of setting up for himself at Cufa, where he then resided; and, to facilitate the execution of his scheme, fortified himself in that city. But Al Mohdi, being apprized of his defection, sent a detachment of 1000 horse to bring him to Bagdad; which being done, Al Mohni not only prevailed upon him to owe his allegiance to him, but also to give up his right to the succession for 10,000 according to some, or according to others for 10,000,000 dinars. From the accession of Al Mohdi to the 164th year of the Hegira, the most remarkable event was the rebellion of Al Mokanna. This impious impostor, whose true name was Hakem Ebn Hesham, came originally from Khorasan, and had been an under secretary to Abu Moslem governor of that province. He afterwards turned soldier, and passed from the province of Khorasan into that of Mawaralnahr, where he gave himself out for a prophet. The name of Al Mokanna, as also that of Al Borkai, that is, the veiled, he took from his custom of covering his face with a veil or girdle mask, to conceal his deformity; he having lost an eye in the wars, and being otherwise of a despicable appearance. In some places he made many proselytes, deluding the people with a number of juggling tricks which they swallowed as miracles, and particularly by causing the appearance of a moon to rise out of a well for many nights together; whence he was also called in the Persian tongue Sazendeb mak, or the moon-maker. This wretch, not content with being reckoned a prophet, arrogated to himself divine honors; pretending that the Deity resided in his person. At last this impostor raised an open rebellion against the caliph, and made himself master of several fortified places in Khorasan, so that Al Mohdi was obliged to send one of his generals with an army against him. Upon the approach of the caliph's troops, Al Mokanna retired into one of his strong fortresses, which he had well provided for a siege; and sent his emissaries abroad to persuade the people that he raised the dead to life, and foretold future events. But being closely besieged by the caliph's forces, and seeing no possibility of escaping, he gave poison in wine to his whole family, and burnt their bodies, with all their furniture, provisions, and cattle; and, lastly, he threw himself into the flames, or, as others say, into a tub of aquafortis, or some other preparation, which consumed every part of him except the hair. When the besiegers therefore entered the place, they found no living creature in it, except one of Al Mokanna's concubines, who, suspecting his design, had hid herself, and now discovered the whole. This terrible contrivance, however, produced the desired effect. He had promised his followers that his soul should transmigrate into the form of an old man riding on a grayish colored beast, and that after so many years he would return and

give them the earth for their possession ; which ridiculous expectation kept the sect in being for several years. All this time war had been carried on with the Greeks, but without any remarkable success on either side. In the 164th year of the Hegira, however, Al Mohdi ordered his son Harun Alraschid to penetrate into the Greek territories with an army of 95,000 men. Harun, then, having entered the dominions of the empress Irene, defeated one of her commanders that advanced against him ; after which he laid waste several of the imperial provinces with fire and sword, and even threatened Constantinople itself. By this the empress was so terrified that she purchased a peace with the caliph by paying him an annual tribute of 70,000 pieces of gold ; which delivered her from the depredations of these barbarians. After the signing of the treaty, Harun returned home laden with spoils and glory. In the 169th year of the Hegira, Al Mohdi was poisoned, though undesignedly, by one of his concubines, named Hasanah. She had designed to destroy one of her rivals whom she imagined to have too great an ascendant over the caliph, by giving her a poisoned pear. This the latter, not suspecting any thing, gave to the caliph ; who had no sooner eaten it than he felt himself in an exquisite torture, and soon after expired.

On the death of Al Mohdi, he was succeeded by his eldest son Al Hadi ; who having formed a design to deprive his younger brother Harun Alraschid of his right of succession, and even to assassinate him, was poisoned by his vizier in the 170th year of the Hegira ; and on his death the celebrated caliph Harun Alraschid ascended the throne. This was the best and wisest prince that ever sat on the throne of Bagdad. He was also extremely fortunate in all his undertakings, though he did not much extend his dominions by conquest. In his time the Saracen empire may be said to have been in its most flourishing state, though, by the independency of the Saracens in Spain, who had formerly set up a caliph of the house of Ommiyah, his territories were not quite so extensive as those of some of his predecessors. See BAGDAD. The first instance of Harun's good fortune, and which was taken for a presage of a prosperous and happy reign, was his finding a valuable ring which he had thrown into the Tigris to avoid being deprived of it by his brother Al Hadi. He was able to give the divers no other direction than by throwing a stone from the bridge of Bagdad, about the same place of the river in which he had thrown the ring ; notwithstanding which they found it without any great difficulty. In the 186th year of the Hegira, or A. D. 802, the caliph divided the government of his extensive dominions among his three sons : to Al Amin the eldest he assigned Syria, Irak, the three Arabias, Mesopotamia, Assyria, Media, Palestine, Egypt, and all that part of Africa extending from the confines of Egypt and Ethiopia to the straits of Gibraltar, with the dignity of caliph ; to Al Mamun, the second, he assigned Persia, Kerman, the Indies, Khorasan, Tabrestan, Cabestan and Zablestan, with the vast province of Mawaralnahr ; and to his third son, Al Kasem, he gave Armenia, Na-

tolia, Jorjan, Georgia, Circassia, and all the Saracen territories bordering upon the Euxine Sea. Al Amin was to ascend the throne immediately after his father's decease ; after him Al Mamun ; and then Al Kasem, whom he had surnamed Al Mutaman. The most considerable exploits performed by this caliph were against the Greeks, who by their perfidy provoked him to make war upon them, and whom he always overcame. In the 187th year of the Hegira the caliph received a letter from the Greek emperor Nicephorus, soon after he had been advanced to the imperial dignity, commanding him to return all the money he had extorted from the empress Irene, though that had been secured to him by the last treaty concluded with that princess, or expect soon to see an imperial army in the heart of his territories. This insolent letter so exasperated Harun that he immediately assembled his forces, and advanced to Heraclea, laying the country through which he passed waste with fire and sword. For some time also he kept that city straitly besieged ; which so terrified the Greek emperor that he submitted to pay an annual tribute. Upon this Harun granted him a peace, which he broke soon after ; but Harun compelled him to renew it, and then returned with his army. In the 188th year of the Hegira war was renewed with the Greeks ; and Nicephorus with a great army attacked the caliph's forces with the utmost fury. He was, however, defeated with the loss of 40,000 men, and received three wounds in the action ; after which the Saracens committed terrible ravages in his territories, and returned home laden with spoils. The next year Harun invaded Phrygia, defeated an imperial army sent to oppose him, and ravaged the country. In the 190th year of the Hegira, November 27th, 805, the caliph marched into the imperial territories with an army of 135,000 men, besides a great number of volunteers. He first took the city of Heraclea, whence he carried 16,000 prisoners ; after which he took several other places, and made a descent on Cyprus, which he plundered in a terrible manner. This so intimidated Nicephorus that he immediately sent the tribute due to Harun, the withholding of which had been the cause of the war, and concluded a peace upon the caliph's own terms ; one of which was that the city of Heraclea should never be rebuilt. This perhaps Harun would not so readily have granted, had not one Rafe Ebn Al Leith revolted against him at Samarcand, and assembled a considerable force. In the 191st year of the Hegira, the caliph removed the governor of Khorasan from his employment, because he had not attended to the motions of the rebel Rafe. As this governor had also tyrannised over his subjects in the most cruel manner, his successor sent him in chains to the caliph : yet the rebels made this year a great progress in the conquest of Khorasan. Next year the caliph marched in person against the rebels, who were daily becoming more formidable. The general rendezvous of his troops was in the plains of Rakka, whence he advanced with them to Bagdad. Having there supplied the troops with every thing necessary, he continued his march to the frontiers of Jorjan, where he was seized with an illness which grew

more violent after he had entered that province. Finding himself, therefore, unable to pursue his journey, he resigned the command of the army to his son Al Mamun, retiring himself to Tus in Khorasan. We are told by Khondemir that, before the caliph departed from Rakka, he had a dream wherein he saw a hand over his head full of red earth, and at the same time heard a person pronouncing these words, 'see the earth where Harun is to be buried.' Upon this he asked where he was to be buried; and was instantly answered, 'at Tus.' This dream greatly discomposing him, he communicated it to his chief physician, who endeavoured to divert him, and advised him to pursue some amusement, to draw his attention another way. The caliph accordingly prepared a magnificent regale for his courtiers, which lasted several days. After this he put himself at the head of his forces, and advanced to the confines of Jordan. As his disorder increased, he retired to Tus, where he sent for his physician, and said to him, 'Gabriel, do you remember my dream at Rakka? We are now arrived at Tus, the place of my interment. Send one of my eunuchs to fetch me a handful of the earth of this city.' Upon this, Masrur, a favorite eunuch, was despatched to bring a little earth. He soon brought a handful of red earth, which he presented to the caliph with his arm half bare. At the sight of this, Harun cried out, 'in truth this is the earth, and this is the very arm, that I saw in my dream.' His spirits immediately failing, and his malady being greatly increased by the perturbation of mind ensuing upon this sight, he died three days after, and was buried in Tus. Bashir Ebn Al Leith, the arch-rebel's brother, was brought in chains to the caliph, when at the point of death. At the sight of him Harun declared that if he could speak only two words he would say kill him; and immediately ordered him to be cut in pieces in his presence. This being done, the caliph soon after expired, in the year of the Hegira 193, having reigned twenty-three years. The distemper that put an end to his days is said to have been the bloody flux.

Upon the arrival of a courier from Tus, with the news of Al Raschid's death, his son Al Amin was immediately proclaimed caliph; and was no sooner seated on the throne than he formed a design of excluding his brother Al Mamun from the succession. Accordingly he deprived him of the furniture of the imperial palace at Khorasan; and in open violation of his father's will, who had bestowed on Al Mamun the perpetual government of Khorasan, and of all the troops in that province, he ordered these forces to march directly to Bagdad. Upon the arrival of this order, Al Mamun expostulated with the general Al Fadl Ebn Rabi, who commanded his troops, and endeavoured to prevent his marching to Bagdad; but without effect, for he punctually obeyed the orders sent by the caliph. Al Mamun, however, took care not to be wanting in fidelity to his brother. He obliged the people of Khorasan to take an oath of fidelity to Al Amin, and reduced some who had actually excited a considerable body of the people to revolt, while the general Al Fadl having ingratiated himself

with the caliph by his ready compliance with his orders, was chosen prime vizier, and governed with an absolute sway: Al Amin abandoning himself entirely to drunkenness. Al Fadl was a very able minister; though, fearing Al Mamun's resentment if ever he should ascend the throne, he gave Al Amin such advice as proved in the end the ruin of them both. He told him that his brother had gained the affection of the people of Khorasan by the good order and police he had established among them; that his unwearied application to the administration of justice had so attracted their esteem that the whole province was entirely at his devotion; that his own conduct was by no means relished by his subjects, whose minds were almost totally alienated from him; and therefore that he had but one part to act, which was to deprive Al Mamun of the right of succession that had been given him by his father, and transfer it to his own son Musa, though then but an infant. Agreeably to this pernicious advice, the caliph sent for his brother Al Kasem from Mesopotamia, and recalled Al Mamun from Khorasan, pretending he had occasion for him as an assistant in his councils. By this treatment Al Mamun was so much provoked that he resolved to come to an open rupture with his brother, in order if possible to frustrate his wicked designs. Instead, therefore, of going to Bagdad as he had been commanded, he cut off all communication between his own province and that capital; saying that, as his father Harun had assigned him the lieutenantancy of Khorasan, he was responsible for all the disorders that might happen there during his absence. He also coined money, and would not suffer Al Amin's name to be impressed upon any of the dirhems or dinars struck in that province. Not content with this, he prevailed upon Rafe Ebn Al Leith, who had been for some time in rebellion, to join him with a body of troops; whose example was soon after followed by Harthema Ebn Aafan; which put him in possession of all the vast territory of Khorasan. Here he governed with an absolute sway, officiated in the mosque as Imam, and constantly harangued the people. In the 195th year of the Hegira, October 4th, 817, the caliph Al Amin, finding that his brother set him at defiance, declared war against him, and sent his general Ali Ebn Isa with an army of 60,000 men to invade Khorasan. Al Mamun, being informed that Ali was advancing against him with such a powerful army, put on foot all the troops he could raise, and gave the command to Thaber Ebn Hosein, one of the greatest generals of his age. Thaber, being a man of undaunted resolution, chose only 4000 men, whom he led against Al Amin's army. Ali, seeing so small a number of troops advancing against him, was transported with joy, and promised himself an easy victory. Despising his enemies, therefore, he behaved in a secure and careless manner; the consequence of which was that his army was entirely defeated, and himself killed, his head being afterwards sent as a present to Al Mamun, who amply rewarded Thaber and Harthema for their services. After this victory, Al Mamun assumed the title of caliph, and made all necessary preparations for carrying the war into

the very heart of his brother's dominions. For this purpose he divided his forces into two bodies, and commanded them to march into Irak by different routes. One of them obeyed the orders of Thaher, and the other of Harthema. The first directed his march to Ahwas, and the other towards Holwan, both of them proposing to meet in the neighbourhood of Bagdad, and after their junction to besiege that city. In the 196th year of the Hegira, Thaher Ebn Hosen made a most rapid progress with the troops under his command. Having advanced towards Ahwas, he there defeated a body of the caliph's forces; and, though the victory was by no means decisive, it so intimidated the commander of Ahwas, that he surrendered that fortress to him. This opened a way to Wafer on the Tigris, and facilitated the conquest of that place. After this he marched with his army to Al Madayen, the inhabitants of which immediately opened their gates to him. The rapidity of these conquests, and the infamous conduct of Al Amin, excited the people of Egypt, Syria, Hejaz, and Yemen, unanimously to declare for Al Mamun; who was accordingly proclaimed caliph in all these provinces. The next year Al Mamun's forces, under Thaher and Harthema, laid siege to Bagdad. As the caliph was shut up in that place, and it had a numerous garrison, the besieged made a vigorous defence, and destroyed a great number of their enemies. The besiegers, however, incessantly played upon the town with their catapults and other engines, though they were in their turn not a little annoyed by the garrison with the same sort of military machines. The latter likewise made continual sallies, and fought like men in despair, though they were always beaten back into the town with considerable loss. In short, the siege continued during the whole of this year, in which the greatest part of the eastern city, called the Camp of Al Mohdi, was demolished or reduced to ashes. The citizens, as well as the garrison, were reduced to the last extremity by the length and violence of the siege. In the beginning of the 198th year of the Hegira, Al Amin, finding himself deserted by his troops, as well as by the principal men of Bagdad, who had kept a private correspondence with Thaher, was obliged to retire to the old town on the west bank of the Tigris. He did not, however, take this step, before the inhabitants of the new town had formally deposed him, and proclaimed his brother Al Mamun caliph. Thaher, receiving advice of this, caused the old town to be invested, planted his engines against it, and at last starved it to a surrender. Al Amin, being thus reduced to the necessity of putting himself into the hands of one of the generals, chose to implore the protection of Harthema, whom he judged to be of a more humane disposition than Thaher. Having obtained this, he embarked in a small vessel in order to arrive at that part of the camp where Harthema was posted; but Thaher being informed of his design, which, if put in execution, he thought would eclipse the glory he had acquired, laid an ambush for him, which he had not the good fortune to escape. Upon his arrival in the neighbourhood of Harthema's tent, Thaher's soldiers rushed upon him,

drowned all his attendants, and put Al Amin himself in prison. Here he was soon after massacred by Thaher's servants, who carried his head in triumph to their master, by whose order it was afterwards exposed to view in the streets of Bagdad. Thaher afterwards sent it to Al Mamun in Khorasan, together with the ring or seal of the caliphate, the sceptre, and the imperial robe. At the sight of these Al Mamun fell down on his knees, and returned thanks to God for his success; making the courier who brought them a present of a million of dirhemas, in value about £100,000 sterling. The same day that Al Amin was assassinated, his brother Al Mamun was proclaimed caliph at Bagdad. He had not been long seated on the throne, when he was alarmed by rebellions breaking out in different parts of the empire. These, however, were at last happily extinguished; after which Thaher Ebn Hosen had the government of Khorasan conferred upon him and his descendants with almost absolute and unlimited power. This happened in the 205th year of the Hegira, from which time we may date the dismemberment of that province from the empire of the caliphs. During the reign of this caliph nothing remarkable happened; only the African Saracens invaded the island of Sicily, where they made themselves masters of several places. He died of a surfeit, in the 218th year of the Hegira, having reigned twenty, and lived forty-eight or forty-nine years.

On the death of Al Mamun his brother Al Motasem, by some of the oriental historians surnamed Billah, was saluted caliph. He succeeded by virtue of Al Mamun's express nomination of him, to the exclusion of his own son Al Abbas, and his other brother Al Casem, who had been appointed by Harun Al Raschid. In the beginning of his reign he was obliged to employ the whole forces of his empire against one Babec, who had been for a considerable time in rebellion in Persia and Persian Irak. This Babec first appeared in the year of the Hegira 201, when he began to take upon him the title of a prophet. What his particular doctrine was is now unknown; but his religion is said to have differed from all others then known in Asia. He gained a great number of proselytes in Aderbijan and the Persian Irak, where he soon grew powerful enough to wage war with the caliph Al Mamun, whose troops he often beat, so that he was now become extremely formidable. The general sent by Al Motasem to reduce him was Heider Ebn Kans, surnamed Afshan, a Turk by nation, who had been brought a slave to the caliph's court, and, having been employed in disciplining the Turkish militia there, had acquired the reputation of a great captain. By him Babec was defeated with prodigious slaughter, no fewer than 60,000 men being killed in the first engagement. The next year, being the 220th of the Hegira, he received a still greater overthrow, losing 100,000 men, killed and taken prisoners. By this defeat he was obliged to retire into the Gordyean mountains; where he fortified himself in such a manner that Afshin found it impossible to reduce him till the year of the Hegira 222. This commander, having reduced with invincible patience all Babec's castles, one after another, the impostor

was obliged to shut himself up in a strong fortress called Cashabad, which was now his last resource. Here he defended himself with great bravery for several months; but at last, finding he should be obliged to surrender, he made his escape into a neighbouring wood, whence he soon after came to Afshin upon that general promising him pardon. But Afshin no sooner had him in his power than he first caused his hands and feet, and afterwards his head, to be cut off. Babec had supported himself against the power of the caliphs for upwards of twenty years, during which time he had cruelly massacred 250,000 people; it being his custom to spare neither man, woman, nor child, of the Mahometans or their allies. Amongst the prisoners taken at Cashabad there was one Nud, who had been one of Babec's executioners, and who owned that, by his orders, he had destroyed 20,000 Saracens with his own hands; to which he added that vast numbers had also been executed by his companions. In the 223d year of the Hegira the Greek emperor Theophilus invaded the caliph's territories, where he behaved with the greatest cruelty, and by destroying Sozopetra, the place of Al Motasem's nativity, notwithstanding his earnest entreaties to the contrary, occasioned the terrible destruction of AMORIUM, mentioned under that article. The rest of this caliph's reign is remarkable for nothing but the execution of Afshin, who was accused of holding correspondence with the caliph's enemies. After his death a great number of idols were found in his house, which were immediately burned, as also several books said to contain impious and detestable opinions. In the 227th year of the Hegira died the caliph Al Motasem, in the forty-eighth or forty-ninth year of his age. He had reigned eight years eight months and eight days, was born in the eighth month of the year, fought eight battles, had 8000 slaves, and had 8,000,000 dinars and 80,000 dirhems in his treasury at his death; whence the oriental historians gave him the name Al Mothamen, or the Octonary. He is said to have been so robust that he once carried a burden of 1000 lbs. weight several paces. As the people of Bagdad disturbed him with frequent revolts and commotions, he took the resolution to abandon that city, and build another for his own residence. The new city he built was first called Samaria, and afterwards Sarra Manray, and stood in the Arabian Irak. He was attached to the opinion of the Moatazalites, who maintain the creation of the Koran; and both he and his predecessor cruelly persecuted those who believed it to be eternal.

Al Motazem was succeeded by Al Wathek Ballah, who the following year, being the 228th of the Hegira, invaded and conquered Sicily. Nothing remarkable happened during the rest of his reign; he died in the 232d year of the Hegira, and was succeeded by his brother Al Motawakkel. The new caliph began his reign with an act of the greatest cruelty. The late caliph's vizier, having treated Al Motawakkel ill in his brother's lifetime, and opposed his election to the caliphate, was on that account now sent to prison. Here the caliph ordered him to be kept awake for several days and nights together: after

this, being suffered to fall asleep, he slept a whole day and night; and after he awoke was thrown into an iron furnace lined with spikes or nails heated red hot, where he was miserably burnt to death. During this reign nothing remarkable happened, except wars with the Greeks, which were carried on with various success. In the year 867, too, being the 245th of the Hegira, violent earthquakes happened in many provinces of the Saracen dominions; and the springs at Mecca failed to such a degree that the celebrated well Zemzem was almost dried up, and the water sold for 100 dirhems a bottle. In the 247th year of the Hegira the caliph was assassinated at the instance of his son Al Montaser; who succeeded him, and died in six months after. He was succeeded by Al Mostain, who, in the year of the Hegira 252 was forced to abdicate the throne by his brother Al Motazz, who afterwards caused him to be privately murdered. He did not long enjoy the dignity of which he had so iniquitously possessed himself; being deposed by the Turkish militia (who now began to set up and depose caliphs as they pleased) in the 255th year of the Hegira. After his deposition he was sent under an escort from Sarra Manray to Bagdad, where he died of thirst or hunger, after a reign of four years and about seven months. The fate of this caliph (however merited) was peculiarly hard: the Turkish troops had mutinied for their pay; and Al Motazz, not having money to satisfy their demands, applied to his mother, named Kabiha, for 50,000 dinars. This she refused, telling him that she had no money at all, although it afterwards appeared that she was possessed of immense treasures. After his deposition, however, she was obliged to discover them, and even deposit them in the hands of the new caliph Al Mokhtadi. They consisted of 1,000,000 dinars, a bushel of emeralds, and another of pearls, and three pounds and three quarters of rubies of the color of fire.

Al Mokhtadi, the new caliph, was the son of one of Al Wathek's concubines, named Korb, or Kark, said by some to have been a Christian. The beginning of his reign is remarkable for the irruption of the Zenjians, a people of Nubia, Ethiopia, and the country of Caffres, into Arabia, where they penetrated into the neighbourhood of Basra and Cufa. The chief of this gang of robbers, who, according to some of the Arab historians, differed but little from wild beasts, was Ali Ebn Mohammed Ebn Abdalrahman, who falsely gave himself out to be of the family of Ali Ebn Abu Taleb. This made such an impression upon the Shites in those parts that they flocked to him in great numbers; which enabled him to seize upon the cities of Basra and Ramla, and even to pass the Tigris at the head of a formidable army. He then took the title of prince of the Zenjians in order to ingratiate himself with those barbarians, of whom his army was principally composed. In the 256th year of the Hegira Al Mokhtada was barbarously murdered by the Turks, who had raised him to the throne; and was succeeded by Al Motamed the son of Al Motawakkel. This year the prince of the Zenjians, Ali, or Al Habib, made incursions to the very gates of Bagdad, doing prodigious

gious mischief wherever he passed. The caliph therefore sent against him one Jolan with a considerable army; he was overthrown, however, with very great slaughter by the Zenjian, who made himself master of twenty-four of the caliph's largest ships in the bay of Basra, put a vast number of the inhabitants of Obolla to the sword, seized upon the town, set fire to it, and soon reduced it to ashes, the houses mostly consisting of the wood of a certain plane-tree called by the Arabians saj. Thence he marched to Abadan, which likewise surrendered to him. Here he found an immense treasure, which enabled him to possess himself of the whole district of Ahwaz. In short, his forces being now increased to 80,000 strong, most of the adjacent territories, and even the caliph's court itself, were struck with horror. In the 257th year of the Hegira Al Habib continued victorious, defeated several armies sent against him by the caliph, reduced the city of Basra, and put 20,000 of the inhabitants to the sword. The following year the caliph, supported by his brother Al Mowaffek, had formed a design of circumscribing the power of the Turkish soldiery, who had for some time given law to the caliphs themselves. But this year the Zenjians made so rapid a progress in Persia, Arabia, and Irak, that he was obliged to suspend the execution of his design, and even to employ the Turkish troops to assist his brother Al Mowaffek in opposing these robbers. The first of the caliph's generals, who encountered Al Habib this year, was defeated in several engagements, and had his army at last entirely destroyed. After this Al Mowaffek and another general named Mosleh advanced against him. In the first engagement, Mosleh being killed by an arrow, the caliph's troops retired; but Al Mowaffek put them afterwards in such a posture of defence that the enemy durst not renew the attack. Several other sharp encounters happened this year, in which neither party gained great advantage; but at last, some contagious distempers breaking out in Al Mowaffek's army, he was obliged to conclude a truce, and retire to Waset to refresh his troops. In the 259th year of the Hegira, commencing November 7th, 881, the war between the caliph and Al Habib still continued. Al Mowaffek, upon his arrival at Bagdad, sent Mahommed, surnamed Al Mowalled, with a powerful army to act against the Zenjians: but he could not hinder them from ravaging the province of Ahwaz, cutting off about 50,000 of the caliph's subjects, and dismantling the city of Ahwaz; and, notwithstanding the utmost efforts of all the caliph's generals, no considerable advantages could be gained either this or the following year. In the 261st year of the Hegira, beginning October 16th, 883, Mohammed Ebn Wasel, who had killed the caliph's governor of Fars, and afterwards made himself master of that province, had several engagements with Al Habib. The caliph, having been apprised of the state of affairs on that side, annexed the government of Fars, Ahwaz, and Basra to the prefecture he had given to Musa Ebn Boga, whom he looked upon as one of the best generals he had. Musa, soon after his nomination to that post, sent Abdalrahman Ebn Mosleh as his

deputy to Ahwaz, giving him as a colleague and assistant one Tisam, a Turk. Mohammed Ebn Wasel, however, refusing to obey the orders of Abdalrahman and Tisam, a fierce conflict ensued, in which the latter were defeated, and Abdalrahman taken prisoner. After this victory Mohammed advanced against Musa Ebn Boga himself; but that general, finding he could not take possession of his new government without a vast effusion of blood, recalled the deputies from their provinces, and made the best of his way to Serra Manray. After this Yakub Ebn Al Leit, having taken Khorasan from the descendants of Thaher, attacked and defeated Mohammed Ebn Wasel, seizing on his palace, where he found a sum of money amounting to 40,000,000 dirhems. The next year Yakub being grown formidable by the acquisition of Ahwaz and a considerable portion of Fars, or at least the Persian Irak, declared war against the caliph. Against him Al Motamed despatched Al Mowaffek; who, having defeated him with prodigious slaughter, plundered his camp, and pursued him into Khorasan; where, meeting with no opposition, he entered Nisabur, and released Mahomet the Thaherian, whom Yakub had detained in prison three years. As for Yakub himself, he made his escape with great difficulty; though he and his family continued several years in possession of many of the conquests he had made. This war with Yakub proved a seasonable diversion in favor of Al Habib, who this year defeated all the forces sent against him, and ravaged the district of Waset. In the 263d of the Hegira, beginning September 24th, 885, the caliph's forces, under the command of Ahmed Ebn Lebuna, gained two considerable advantages over Al Habib; but, being at last drawn into an ambuscade, they were almost totally destroyed, their general himself making his escape with the utmost difficulty; nor were the caliph's forces able, during the course of the next year, to make the least impression upon these rebels. In the 265th year of the Hegira, beginning September 3d, 887, Ahmed Ebn Tolon rebelled against the caliph, and set up for himself in Egypt. Having assembled a considerable force, he marched to Antioch, and besieged Sima the governor of Aleppo, and all the provinces known among the Arabs by the name of Al Awsem in that city. As the besieged found that he was resolved to carry the place by assault, they thought fit, after a short defence, to submit, and to put Sima into his hands. Ahmed no sooner had that officer in his power than he caused him to be beheaded; after which he advanced to Aleppo, the gates of which were immediately opened unto him. Soon after he reduced Damascus, Hems, Hamath, Kinnisrin, and Al Rakka, situated upon the eastern bank of the Euphrates. This rebellion so exasperated Al Motamed that he caused Ahmed to be publicly cursed in all the mosques belonging to Bagdad and Irak; and Ahmed on his part ordered the same malediction to be thundered out against the caliph in all the mosques within his jurisdiction. This year also a detachment of Al Habib's troops penetrated into Irak, and made themselves masters of four of the caliph's ships laden with corn; they then advanced to Al Nomanic, laid

the greatest part of it in ashes, and carried off with them several of the inhabitants prisoners. After this they possessed themselves of Jarjaraya, where they found many more prisoners, and destroyed all the adjacent territory with fire and sword. This year there were four independent powers in the Saracen dominions, besides the house of Ommyyah in Spain: viz. the African Saracens, or Aglabites, who had for a long time acted independently; Ahmed in Syria and Egypt; Al Leit in Khorasan; and Al Habib in Arabia and Irak. In the 266th year of the Hegira, beginning August 23d, 888, Al Habib reduced Ramhormoz, burnt the stately mosque there to the ground, put a vast number of the inhabitants to the sword, and carried away great numbers, as well as a vast quantity of spoil.

This was his last successful campaign; for the year following Al Mowaffek, attended by his son Abul Abbas, having attacked him with a body of 10,000 horse and a few infantry, notwithstanding the vast disparity of numbers (Al Habib's army amounting to 100,000 men), defeated him in several battles, recovered most of the towns he had taken, together with an immense quantity of spoil, and released 5000 women who had been thrown into prison by these barbarians. After these victories Al Mowaffek took post before the city of Al Mabiya, built by Al Habib, and the palace of his residence; burnt all the ships in the harbour; thoroughly pillaged the town; and then entirely dismantled it. After the reduction of this place, in which he found immense treasures, Al Mowaffek pursued the flying Zenjians, put several of their chiefs to the sword, and advanced to Al Mokhtara, a city built by Al Habib. As the place was strongly fortified, and Al Habib was posted in its neighbourhood with an army, according to Abn Jaafer Al Tabari, of 300,000 men, Al Mowaffek perceived that the reduction of it would be a matter of some difficulty. He therefore built a fortress opposite to it, where he erected a mosque, and coined money. The new city, from its founder, was called by the Arabs Al Mowaffekia, and soon rendered considerable by the settlement of several wealthy merchants there. The city of Al Mokhtara, being reduced to great straits, was at last taken by storm, and given up to be plundered by the caliph's troops; after which Al Mowaffek defeated the numerous forces of Al Habib in such a manner that they could no more be rallied during that campaign. In the year 268 of the Hegira Al Mowaffek penetrated again into Al Mabiya, and demolished the fortifications which had been raised since its former reduction, though the rebels disputed every inch of ground. Next year he again attacked Al Habib with great bravery; and would have entirely defeated him, had he not been wounded in the breast with an arrow, which obliged him to retreat. However, as soon as he was cured of his wound, Al Mowaffek advanced a third time to Al Mabiya, made himself master of that metropolis, threw down the walls that had been raised, put many of the inhabitants to the sword, and carried a vast number of them into captivity. The year 270 of the Hegira, commencing July 11th, 892, proved fatal to the rebel Al Habib. Al Mowaffek

made himself a fourth time master of Al Mabiya, burnt Al Habib's palace, seized upon his family, and sent them to Sarra Manray. As for the usurper himself he escaped; but being closely pursued by Al Mowaffek into the province of Ahwaz, where the shattered remains of his forces were entirely defeated, he at last fell into the hands of the victor, who ordered his head to be cut off, and carried through a great part of that region which he had so long disturbed. By this complete victory Al Mowaffek obtained the title of Al Nasir Lidmalbah, that is, the protector of Mahometanism. This year also died Ahmed Ebn Tolun, who had seized upon Egypt and Syria, and was succeeded by his son Khamarawiyah. The next year a bloody engagement happened between the caliph's forces commanded by Al Mowaffek's son and those of Khamarawiyah, who had made an irruption into the caliph's territories. The battle was fought between Al Ramla and Damascus. In the beginning Khamarawiyah found himself so hard pressed that his men were obliged to give way; upon which, taking for granted that all was lost, he fled with great precipitation, even to the borders of Egypt; but in the mean time his troops, being ignorant of the flight of their general, returned to the charge and gained a complete victory. After this Khamarawiyah, by his just and mild administration, so gained the affections of his subjects that the caliph found it impossible to gain the least advantage over him. In the year of the Hegira 276 he overthrew one of the caliph's generals, named Abul Saj, at Al Bathnia, near the city of Damascus; after which he advanced to Al Rakka on the Euphrates, and made himself master of that place. Having annexed several large provinces to his former dominions, and left some of his friends in whom he could confide to govern them, he then returned into Egypt, the principal part of his empire, which now extended from the Euphrates to the borders of Nubia and Ethiopia. The following year, the 278th of the Hegira, was remarkable for the death of Al Mowaffek. He died of the elephantiasis or leprosy; and, while in his last illness, said that, of 100,000 men whom he commanded, there was not one so miserable as himself. This year was also remarkable for the first disturbances raised in the Saracen empire by the Karmatians. The origin of this sect is uncertain; but the most common opinion is that a poor fellow, by some called Karmata, came from Khuzestan to the villages near Cufa, and there pretended great sanctity, and that God had enjoined him to pray fifty times a day, inviting people to the obedience of a certain imam of the family of Mahomet; and this way of life he continued till he had made a very great party, out of whom he chose twelve as his apostles to govern the rest, and to propagate his doctrines. He also assumed the title of prince, and obliged every one of his earlier followers to pay him a dinar a year. But Al Haidam, the governor of that province, finding that men neglected their work, to say those fifty prayers a day, seized the fellow, and, having put him in prison, swore that he should die. This being overheard by a girl, belonging to the governor, she, out of compassion, took the key of the dungeon at night from

under her master's head, released Karmata, and restored the key to its place. The next morning the governor found his prisoner gone; and the accident, being publicly known, raised great admiration: Karmata's adherents giving out that God had taken him into heaven. After this he appeared in another province, and declared to a great number of people that it was not in the power of any person to do him hurt; notwithstanding which, his courage failing him, he retired into Syria, and was never heard of more. After his disappearance the sect continued and increased: his disciples pretending that their master had manifested himself to be a true prophet, and had left them a new law, wherein he had changed the ceremonies and form of prayer used by the Mahometans, &c. From this year (278) these sectaries gave almost continual disturbance to the caliphs and their subjects, committing great disorders in Chaldea, Arabia, and Mesopotamia, and at length established a considerable principality. In the 279th year of the Hegira died the caliph Al Motamed; and was succeeded by Al Motaded, son to Al Mowaffek.

In the first year of his reign, Al Motaded demanded in marriage the daughter of Khamarawiyah, sultan, or caliph, in Egypt; which was agreed to, and their nuptials were solemnised with great pomp in the 282d year of the Hegira. He carried on a war with the Karmatians; but very unsuccessfully, his forces being defeated with great slaughter, and his general Al Abbas taken prisoner. This caliph also granted to Harun, son to Khamarawiyah, the perpetual prefecture of Awasam and Kinpisin, which he annexed to that of Egypt and Syria, upon condition that he paid him an annual tribute of 45,000 dinars. He died in the year of the Hegira 289, and was succeeded by his son Al Moctasi, who proved a warlike and successful prince. He gained several advantages over the Karmatians, but was not able to reduce them. The Turks, however, having invaded the province of Mawaralnabar, were defeated with great slaughter; after which Al Moctasi carried on a successful war against the Greeks, from whom he took Seleucia. After this he invaded Syria and Egypt, which provinces he recovered from the house of Ahmed Ebn Tolun. The reduction of Egypt happened in the 292d year of the Hegira, after which the war was renewed with success against the Greeks and Karmatians. The caliph died in the 295th year of the Hegira, after a reign of about six years and a half. He was the last of the caliphs who made any figure by their warlike exploits. His successors Al Moktader, Al Kaher, and Al Radi, were so distressed by the Karmatians and numberless usurpers who were every day starting up, that by the 325th year of the Hegira they had nothing

left but the city of Bagdad. In the 324th year of the Hegira, commencing November 30th, 946, the caliph Al Radi, finding himself distressed on all sides by usurpers, and having a vizier of no capacity, instituted a new office superior to that of vizier, which he entitled emir al omra, or commandant of commandants. This great officer was trusted with the management of military affairs, and had the entire management of the finances, in a much more absolute and unlimited manner than any of the caliph's viziers ever had. Nay, he officiated for the caliph in the great mosque at Bagdad, and had his name mentioned in the public prayers throughout the kingdom. In short, the caliph was so much under the power of this officer, that he could not apply a single dinar to his own use without the leave of the emir al omri. In the year 325 the Saracen empire, once so great and powerful, was shared among the following usurpers:—1. The cities of Waset, Basra, and Cufa, with the rest of the Arabian Irak, were considered as the property of the emir al omra, though they had been in the beginning of the year seized upon by a rebel called Al Barilli, who could not be driven out of them. 2. The country of Fars, Farsistan, or Persia, properly so called, was possessed by Amado'ddawia Ali Ebn Bulya, who resided in the city of Shiraz. 3. Part of the tract denominated Al Jebal, together with Persian Irak, which is the mountainous part of Persia, and the country of the ancient Parthians, obeyed Rucno'ddawla, the brother of Amao'ddawla, who resided at Ispahan. The other part of that country was possessed by Washmakin the Deylamite. 4. Diyar Rabia, Diyar Beer, Diyar Modar, and the city of Al Mawsel, or Mosul, acknowledged for their sovereign a race of princes called Hamdanites. 5. Egypt and Syria no longer obeyed the caliphs, but Mahomet Ebn Taj, who had formerly been appointed governor of these provinces. 6, 7. Africa and Spain had long been independent. 8, 9. Sicily and Crete were governed by princes of their own. 10, 11. The provinces of Khorasan and Mawaralnabar were under the dominion of Ai Nasr Ebn Ahmed, of the dynasty of the Samarians. 12—14. The provinces of Tabrestan, Jorjan or Georgiana, and Mazanderan, had kings of the first dynasty of the Deylamites. 15. The province of Kerman was occupied by Abu Ali Mahomet Ebn Eyliya Al Sammani, who had made himself master of it a short time before. 16. Lastly, the provinces of Yamana and Bahrein, including the district of Hajr, were in the possession of Abu Thaer the Karmatian. Farther particulars respecting the history of the Saracens will be found under the articles already referred to, and particularly under SPAIN, where they were more generally styled Moors than either Saracens, Arabs, Moslems, or Mussulmans.

SARAGOSSA, or ZARAGOSA, a city in the north of Spain, on the south bank of the Ebro, the capital of Arragon, and the see of an archbishop. It is surrounded by an earthen wall, and has twelve gates: the town being built on the site of the ancient Salpuba, which was enlarged by Augustus, and thence called Cæsa:

Augusta, corrupted subsequently into Saragossa. The canal of Arragon approaches it both east and west. It is a large place, built throughout of brick, but the houses are seldom above three stories in height; and the streets generally narrow and crooked. But there is one long and wide street called the Cozo, and two bridges

over the Ebro, one of wood, said to be the finest of the kind in Europe.

Saragossa has a Gothic cathedral, sixteen other churches, and nearly forty convents. The church of our 'Lady of the Pillar' is remarkable for its supposed miraculous image; and that of St. Engracia for various relics.

This city is the residence of the intendant, captain-general, and high court of justice of Aragon; and of a small garrison. It has a university founded in 1478, and an academy of fine arts. Here are also two public libraries. The climate is temperate, and of far less intense heat than the south of Spain.

This city is chiefly celebrated for its dreadful sieges in 1808 and 1809. The French attempted to take it by assault in 1808, but were repulsed with loss. Returning with augmented numbers, they invested nearly half the town, in defence of which the citizens were indefatigable, the batteries being served by both sexes. However, on the 4th of August, the French beat down the wall on the right bank of the Guerva, and enabled their troops to force their way into the Cozo. Being thus in possession of nearly half the town, the contest seemed only to have begun: for the inhabitants defended house after house, and made a number of nocturnal attacks on the part occupied by the French: eventually the latter, making no progress, on the 14th of August retired. The siege of the following year was no less obstinate. Having received great reinforcements, and entirely defeated various Spanish armies, the French marched in November (1808) once more upon this point. Their plan was now to destroy the city partly by bombs, or by mining, and their first attack (December 20th) gave them possession of some important posts. The bombardment commenced on the 10th of January, which, violent as it was, caused less injury than a fever now raging in the garrison: and Saragossa was crowded with soldiers. It continued, however, to make a brave resistance, and it was not till after a bombardment of six weeks, and a very unequal contest in mining, that Palafox, its noble commander, surrendered. 175 miles E. N. E. of Madrid. Population 50,000.

Dr. Southey's eloquent narrative of the siege of 1808, in his History of the Peninsular War, is amongst the most successful productions of his ever-able pen. We are quite sure our readers will only wish that, instead of the following abstract, we could have given the entire chapter he has devoted to this memorable conflict:—

'A regular siege was to be expected; how were the citizens to sustain it with their brick walls, without heavy artillery, and without troops who could sally to interrupt the besiegers in their works? In spite of all these discouraging circumstances, confiding in God and their own courage, they determined to defend the streets to the last extremity. Palafox, immediately after the repulse of the enemy, set out to muster reinforcements, to provide such resources for the siege as he could, and to place the rest of Arragon in a state of defence, if the capital should fall. The besiegers' army was soon reinforced by general Verdier with 2500 men, besides some

battalions of Portuguese, who, according to the devilish system of Buonaparte's tyranny, had been forced out of their country, to be pushed on in the foremost ranks, wherever the first fire of a battery was to be received, a line of bayonets clogged, or a ditch filled, with bodies. They occupied the best positions in the surrounding plain, and, on the 27th, attacked the city and the Torrero; but they were repulsed with the loss of 800 men, six pieces of artillery, and five carts of ammunition. By this time they had invested nearly half the town. The next morning they renewed the attack at both places; from the city they were again repulsed, losing almost all the cavalry who were engaged. But the Torrero was lost through the alleged misconduct of an artillery officer, who was charged with having made his men abandon the batteries at the most critical moment. For this he was condemned to run the gauntlet six times, the soldiers beating him with their ramrods, and after this cruelty he was shot.

'The French having now received a train of mortars, howitzers, and twelve-pounders, which were of sufficient calibre against mud walls, kept up a constant fire, and showered down shells and grenades from the Torrero. About 1200 were thrown into the town, and there was not one building that was bomb-proof within the walls. After a time the inhabitants placed beams of timber together endways against the houses, in a sloping direction, behind which those who were near when a shell fell might shelter themselves. The enemy continued also to invest the city more closely, while the Arragonese made every effort to strengthen their means of defence. They tore down the awnings from their windows, and formed them into sacks which they filled with sand, and piled up before the gates, in the form of a battery, digging round it a deep trench. They broke holes for musketry in the walls and intermediate buildings, and stationed cannon where the position was favorable for it. The houses in the environs were destroyed. 'Gardens and olive grounds,' says an eye-witness, 'that in better times had been the recreation and support of their owners, were cheerfully rooted up by the proprietors themselves, wherever they impeded the defence of the city, or covered the approach of the enemy.' Women of all ranks assisted; they formed themselves into companies, some to relieve the wounded, some to carry water, wine, and provisions, to those who defended the gates. The countess Burita instituted a corps for this service; she was young, delicate, and beautiful. In the midst of the most tremendous fire of shot and shells, she was seen coolly attending to those occupations which were now become her duty; nor throughout the whole of a two months' siege did the imminent danger, to which she incessantly exposed herself, produce the slightest apparent effect upon her, or in the slightest degree bend her from her heroic purpose. Some of the monks bore arms; others exercised their spiritual offices to the dying; others, with the nuns, were busied in making cartridges which the children distributed.

'Among 60,000 persons there will always

be found some wicked enough for any employment, and the art of corrupting has constituted great part of the French system of war. During the night of the 28th the powder magazine, in the area where the bull fights were performed, which was in the very heart of the city, was blown up, by which fourteen houses were destroyed, and about 200 persons killed. This was the signal for the enemy to appear before three gates which had been sold to them. And, while the inhabitants were digging out their fellow citizens from the ruins, a fire was opened upon them with mortars, howitzers, and cannons, which had now been received for battering the town. Their attack seemed chiefly to be directed against the gate called Portillo, and a large square building near it, without the walls, and surrounded by a deep ditch; though called a castle, it served only for a prison. The sand-bag battery before this gate was frequently destroyed, and as often reconstructed under the fire of the enemy. The carnage here throughout the day was dreadful.

Augustina Zaragoza, a handsome woman of the lower class, about twenty-two years of age, arrived at this battery with refreshments, at the time when not a man who defended it was left alive, so tremendous was the fire which the French kept up against it. For a moment the citizens hesitated to re-man the guns. Augustina sprung forward over the dead and dying, snatched a match from the hand of a dead artilleryman, and fired off a six-and-twenty pounder; then, jumping upon the gun, made a solemn vow never to quit it alive during the siege. Such a sight could not but animate with fresh courage all who beheld it. The Saragossans rushed into the battery, and renewed their fire with greater vigor than ever, and the French were repulsed here and at all other points with great slaughter.

Lefebvre probably was so indignant at meeting with any opposition from a people whom he despised, and a place which, according to the rules and pedantry of war, was not tenable, that he lost his temper, and thought to subdue them the shortest way, by mere violence and superior force. Having found his mistake, he proceeded to invest the city still more closely. In the beginning of the siege, the besieged received some scanty succors; yet, however scanty, they were of importance. 400 soldiers from the regiment of Estremadura, small parties from other corps, and a few artillerymen got in; 200 of the militia of Logrono were added to these artillerymen, and soon learnt their new service, being in the presence of an enemy whom they had such righteous reason to abhor. Two four-and-twenty pounders and a few shells, which were much wanted, were procured from Lerida. The enemy, mean time, were amply supplied with stores from the magazine in the citadel of Pamplona, which they had so perfidiously seized on their first entrance, as allies, into Spain. Hitherto they had remained on the right bank of the Ebro. On the 11th of July they forced the passage of the ford, and posted troops enough on the opposite side to protect their workmen while forming a floating bridge. In spite of all the efforts of the Arragonese, this bridge was completed on the

14th; a way was thus made for their cavalry, to their superiority in which the French were mostly indebted for all their victories in Spain. This gave them the command of the surrounding country; they destroyed the mills, levied contributions on the villages, and cut off every communication by which the besieged had hitherto received supplies. These new difficulties called out new resources in this admirable people and their general,—a man worthy of commanding such a people in such times. Corn-mills, worked by horses, were erected in various parts of the city; the monks were employed in manufacturing gunpowder, materials for which were obtained by immediately collecting all the sulphur in the place, by washing the soil of the streets to extract its nitre, and making charcoal from the stalks of hemp, which in that part of Spain grows to a magnitude that would elsewhere be thought very unusual.

By the end of July the city was completely invested, the supply of food was scanty, and the inhabitants had no reason to expect success. Their exertions had now been unremitting for forty-six days, and nothing but the sense of duty could have supported their bodily strength and their spirit under such trials. They were in hourly expectation of another general attack, or another bombardment. They had not a single place of security for the sick and the children, and the number of wounded was daily increased by repeated skirmishes, in which they engaged for the purpose of opening a communication with the country. At this juncture they made one desperate effort to recover the Torrero. It was in vain; and convinced by repeated losses, and especially by this last repulse, that it was hopeless to make any effectual sally, they resolved to abide the issue of the contest within the walls, and conquer or perish there.

On the night of the 2d of August, and on the following day, the French bombarded the city from their batteries opposite the gate of the Carmen. A founding hospital, which was now filled with the sick and wounded, took fire, and was rapidly consumed. During this scene of horror the most intrepid exertions were made to rescue these helpless sufferers from the flames. No person thought of his own property or individual concerns—every one hastened thither. The women were eminently conspicuous in their exertions, regardless of the shot and shells which fell about them, and braving the flames of the building. It has often been remarked that the wickedness of women exceeds that of the other sex; for the same reason, when circumstances, forcing them out of the sphere of their ordinary nature, compel them to exercise manly virtues, they display them in the highest degree, and, when they are once awaked to a sense of patriotism, they carry the principle to its most heroic pitch. The loss of women and boys during this siege was very great, fully proportionate to that of men; they were always the most forward, and the difficulty was to teach them a prudent and proper sense of their danger. On the following day the French completed their batteries upon the right bank of the Guerva, within pistol-shot of the gate of St. Engracia, so called from a

splendid church and convent of Jeronimites, situated on one side of it.

On the 4th of August the French opened batteries within pistol-shot of this church and convent. The mud walls were levelled at the first discharge; and the besiegers, rushing through the opening, took the batteries before the adjacent gates in reverse. Here general Mori, who had distinguished himself on many former occasions, was made prisoner. The street of St. Engracia, which they had thus entered, leads into the Cozo, and the corner buildings where it is thus terminated were on the one hand the convent of St. Francisco, and on the other the general hospital. Both were stormed and set on fire; the sick and the wounded threw themselves from the windows to escape the flames, and the horror of the scene was aggravated by the maniacs, whose voices, raving or singing in paroxysms of wilder madness, or crying in vain to be set free, were heard amid the confusion of dreadful sounds. Many fell victims to the fire, and some to the indiscriminating fury of the assailants. Those who escaped were conducted as prisoners to the Torrero; but, when their condition had been discovered, they were sent back on the morrow to take their chance in the siege. After a severe contest, and dreadful carnage, the French forced their way into the Cozo in the very centre of the city; and, before the day closed, were in possession of one half of Saragossa. Lefebvre now believed that he had effected his purpose, and required Palafox to surrender in a note containing only these words:—'Head-quarters. St. Engracia. Capitulation!' The heroic Spaniard immediately returned this reply:—'Head-quarters, Saragossa. War at the knife's point!'

The contest which was now carried on is unexampled in history. One side of the Cozo, a street about as wide as Pall Mall, was possessed by the French; and, in the centre of it, their general, Verdier, gave his orders from the Franciscan convent. The opposite side was maintained by the Arragonese, who threw up batteries at the openings of the cross streets, within a few paces of those which the French erected against them. The intervening space was presently heaped with dead, either slain upon the spot or thrown out from the windows. Next day the ammunition of the citizens began to fail; the French were expected every moment to renew their efforts for completing the conquest, and even this circumstance occasioned no dismay, nor did any one think of capitulation. One cry was heard from the people, wherever Palafox rode among them, that, if powder failed, they were ready to attack the enemy with their knives—formidable weapons in the hands of desperate men. Just before the day closed Don Francisco Palafox, the general's brother, entered the city with a convoy of arms and ammunition, and a reinforcement of 3000 men, composed of Spanish guards, Swiss, and volunteers of Arragon: a succor as little expected by the Saragossans as it had been provided against by the enemy.

The war was now continued from street to street, from house to house, and from room to room; pride and indignation having wrought

up the French to a pitch of obstinate fury little inferior to the devoted courage of the patriots. During the whole siege no man distinguished himself more remarkably than the curate of one of the parishes, within the walls, by name P. Santiago Sass. He was always to be seen in the streets, sometimes fighting with the most determined bravery against the enemies, not of his country alone, but of freedom, and of all virtuous principles, wherever they were to be found; at other times administering the sacrament to the dying, and confirming, with the authority of faith, that hope which gives to death, under such circumstances, the joy, the exultation, the triumph, and the spirit of martyrdom. Palafox reposed the utmost confidence in this brave priest, and selected him whenever any thing peculiarly difficult or hazardous was to be done. At the head of forty chosen men, he succeeded in introducing a supply of powder into the town, so essentially necessary for its defence.

This most obstinate and murderous contest was continued for eleven successive days and nights, more indeed by night than by day; for it was almost certain death to appear by daylight within reach of those houses which were occupied by the other party. But, under cover of the darkness, the combatants frequently dashed across the street to attack each other's batteries; and the battles which began there were often carried on into the houses beyond, where they fought from room to room and floor to floor. The hostile batteries were so near each other that a Spaniard in one place made way under cover of the dead bodies, which completely filled the space between them, and fastened a rope to one of the French cannons; in the struggle which ensued, the rope broke, and the Saragossans lost their prize at the very moment when they thought themselves sure of it.

A new horror was added to the dreadful circumstances of war in this ever memorable siege. In general engagements the dead are left upon the field of battle, and the survivors remove to clear ground and an untainted atmosphere; but here—in Spain, and in the month of August, there where the dead lay the struggle was still carried on, and pestilence was dreaded from the enormous accumulation of putrefying bodies. Nothing in the whole course of the siege so much embarrassed Palafox as this evil. The only remedy was to tie ropes to the French prisoners, and push them forward amid the dead and dying, to remove the bodies, and bring them away for interment. Even for this necessary office there was no truce, and it would have been certain death to the Arragonese who should have attempted to perform it; but the prisoners were in general secured by the pity of their own soldiers, and in this manner the evil was in some degree diminished.

A council of war was held by the Spaniards on the 8th, not for the purpose which is too usual in such councils, but that their heroic resolution might be communicated with authority to the people. It was that, in those quarters of the city where the Arragonese still maintained their ground, they should continue to defend themselves with the same firmness: should the enemy

at last prevail, they were then to retire over the Ebro into the suburbs, break down the bridge, and defend the suburbs till they perished. When this resolution was made public, it was received with the loudest acclamations. But in every conflict the citizens now gained ground upon the soldiers, winning it inch by inch, till the space occupied by the enemy, which on the day of their entrance was nearly half the city, was gradually reduced to about an eighth part. Meantime, intelligence of the events in other parts of Spain was received by the French—all tending to dishearten them; the surrender of Dupont, the failure of Monecy before Valencia, and the news that the junta of that province had despatched 6000 men to join the levies in Arragon, which were destined to relieve Saragossa. During the night of the 13th their fire was particularly fierce and destructive: after their batteries had ceased, flames burst out in many parts of the buildings which they had won; their last act was to blow up the church of St. Engracia; the powder was placed in the subterranean church—and this remarkable place—this monument of fraud and of credulity—the splendid theatre wherein so many feelings of deep devotion had been excited—which so many thousands had visited in faith, and from which unquestionably many had departed with their imaginations elevated, their principles ennobled, and their hearts strengthened, was laid in ruins. In the morning the French columns, to the great surprise of the Spaniards, were seen at a distance, retreating over the plain, on the road to Pamplona.

‘The history of a battle, however skilfully narrated, is necessarily uninteresting to all except military men; but, in the detail of a siege, when time has destroyed those considerations which prejudice or pervert our natural sense of right and wrong, every reader sympathises with the besieged, and nothing, even in fictitious narratives, excites so deep and animating an interest. There is not, either in the annals of ancient or of modern times, a single event recorded more worthy to be held in admiration, now and for evermore, than the siege of Saragossa. Will it be said that this devoted people obtained for themselves, by all this heroism and all these sacrifices, nothing more than a short respite from their fate? Woe be to the slavish heart that conceives the thought, and shame to the base tongue that gives it utterance! They purchased for themselves an everlasting remembrance upon earth—a place in the memory and love of all good men in all ages that are yet to come. They performed their duty; they redeemed their souls from the yoke; they left an example to their country never to be forgotten, never to be out of mind, and sure to contribute to and hasten its deliverance.’—*Southey's Works*, 3 vols. 4to., pp. 405—421, Vol. I.

SARAH [Heb. שרה, i. e. lady], and SARAI [Heb. i. e. my mistress], names of the patriarch Abraham's wife. She is supposed to be the same with Ischah, the daughter of Haran, Abraham's younger brother by a different mother, and consequently the sister of Lot. Her beauty and consequent danger in the courts of Egypt and

Gerar; her entertainment of the angels; her barrenness till her ninetieth year, with her miraculous conception and the birth of Isaac in her ninety-first; her turning off Hagar, with her death and burial in her 128th year, are recorded in Genesis xii. xviii. xx. xxi. xxiii.

SARASIN (John Francis), a French author, born at Hermauville, near Caen, in Normandy, about 1604. He studied at Caen, and afterwards went to Paris; where he became eminent for his wit and humor. He afterwards travelled through Germany, and, upon his return, became secretary to the prince of Conti, whom he prevailed upon to marry the niece of cardinal Mazarine, in reward for which he is said to have received a large sum. But the prince, afterwards hearing of his venality, dismissed him, which is said to have brought on his death. He published, 1. *Discours de la Tragedie*: 2. *L'Histoire du Siege de Dunkerque*: and, 3. *La Pompe funebre de Voiture*: inserted in the *Miscellanea of Menage*; to whose care he left all his MSS., from which Menage published a 4to. vol. at Paris, in 1656, and other 2 vols. in 1675; consisting of various essays in prose and poetry, which are esteemed. He died in 1654.

SARATOGA, a county and town of New York. The county has a population of 33,000, chief town Ballston. The town is twelve miles north-east of that place, and gives name to several mineral springs. The most noted, those of Saratoga and Ballston, are the most celebrated mineral waters in the United States. They are strongly impregnated with carbonic acid, and contain also carbonate of soda, muriate of soda, supercarbonated lime, and a carbonate of iron. They are much frequented, during the warm months, by gay and fashionable people, as well as by invalids. The principal springs in Saratoga are Congress Spring, and Rock Spring, which are situated in the west part of the town, seven miles N. N. E. of Ballston, twelve west of the Hudson, thirty-two north of Albany. Here is a large, handsome, and flourishing village, with a post office, a Presbyterian church, and boarding-houses which afford excellent accommodations for visitors. Saratoga is memorable as the place where general Burgoyne surrendered the British army to general Gates, October 17th, 1777.

SARATOV, an important province of Russia, situated on the Wolga, partly in Europe, and partly in Asia; having on the one side the country of the Don Cossacks, and on the other that of Astracan. Containing an area of 91,000 square miles, its population is so thin as not to exceed 1,000,000; and a great part of the tract to the east of the Wolga is so impregnated with salt as to be in many parts unfit for the growth of vegetables. Of the salt lakes in this quarter, the most productive is that of Jelton. The country to the west of the Wolga is fitted partly for tillage, and partly for pasturage. The great danger to vegetation here is from locusts, swarms of which often appear in summer. Attempts were made in the last century, by the Russian government, to improve particular spots by German settlers; and these colonists form the chief merchant and manufacturers of the country; but their success has been very limited.

SARATOV, a neat town of European Russia, the capital of the above government, stands on the Wolga, surrounded by a wall and ditch; the houses are mostly of wood. It has an active trade between Moscow and Astracan, and a fine command of water carriage: the articles of traffic not derived from these cities are fish, caviar, and salt. Inhabitants 5000. 374 miles north by west of Astracan, and 465 south-east of Moscow.

SARCASM, *n. s.* Fr. *sarcasme*; Lat. *sarcasitic*, *adj.* } *casmus*. A keen reproach;
SARCAS'TICAL, } a taunt; a gibe: the ad-
SARCAS'TICALLY. } jective and adverb corresponding.

He asked a lady playing with a lap-dog, whether the women of that country used to have any children or no? thereby *sarcas'tically* reproaching them for misplacing that affection upon brutes which could only become a mother to her child. *South.*

What a fierce and *sarcas'tick* reprehension would this have drawn from the friendship of the world, and yet what a gentle one did it receive from Christ! *Id.*

Sarcasms of wit are transmitted in story. *Government of the Tongue.*

Rejoice, O young man, says Solomon, in a severe *sarcasm*, in the days of thy youth, and walk in the ways of thy heart; but know that for these things God will bring thee into judgment.

Epithets may be found in great plenty at Billingsgate; *sarcasm* and irony learned upon the water; and the epiphonema or exclamation frequently from the bear-garden, and as frequently from the 'hear him,' of the house of commons. *Pope.*

When an angry master says to his servant, It is bravely done, it is one way of giving a severe reproach; for the words are spoken by way of *sarcasm*, or irony. *Watts.*

SARCE'NET, *n. s.* Derived by Skinner from Lat. *sericum saracenicum*. Fine thin woven silk.

Why art thou then exasperate, thou idle immaterial skein of sley'd silk, thou green sarcenet flap for a sore eye, thou tassel of a prodigal's purse?

If they be covered, though but with linen or *sarcenet*, it intercepts the effluvium. *Browne.*

These are they that cannot bear the heat Of figured silks, and under *sarcenets* sweat. *Dryden.*

She darts from *sarcenet* ambush wily leers,
 Twitches thy sleeve, or with familiar airs
 Her fan will pat thy cheek; these snares disdain. *Gay.*

SARCOCELE. See **SURGERY**.

SARCOCOLLA, a concrete juice brought from Persia and Arabia, in small whitish yellow grains, with a few of a reddish, and sometimes of a deep red color mixed with them; the whitest tears are preferred as being the freshest; its taste is bitter, accompanied with a dull kind of sweetness. This drug dissolves in watery liquors, and is used in medicine.

SARCOPHAGUS [Gr. *σαρκοφάγος*, from *σαρξ*, flesh, and *φάγω*, to eat], in architecture, the name of a stone found, according to Pliny, in the Troad, and of which tombs were constructed on account of its caustic qualities. It is said to have perfectly consumed the flesh of human bodies buried in it in the space of forty days.

This property, for which it was greatly celebrated, is mentioned by all the ancient naturalists. There was another very singular quality also attached to it, but whether to all, or only to some peculiar pieces of it, is not known; that is, its turning into stone any thing that was put into vessels made of it. This is recorded only by Mutianus and Theophrastus, except that Pliny had copied it from these authors, and some of the later writers from him.

The custom of burying the dead is probably more ancient than that of burning their bodies. Mythology attributes the latter mode to Hercules, while it assigns the earliest usage of the former method to the primitive Greeks and Romans. In the Greek colonies of Italy they buried, as we do, the entire body; and, even when the custom of burning the body became general among the Romans, several families retained that of interment. But the term sarcophagus is by no means limited to a particular kind of stone. Indeed, its more generally accepted meaning is a sort of coffin, made, among the ancients, either of stone, of marble, or porphyry. The Greeks also sometimes employed hard wood, which was calculated to resist humidity, such principally as oak, cedar, or cypress. Occasionally also they used terra cotta, and even metal. The form of these sarcophagi was ordinarily a parallelepipedon—namely, a long square, such as our coffin. Sometimes the angles were rounded, thus assuming an elliptical shape. The lid of the sarcophagus varies both in shape and ornament. Sometimes it bears the statue of the person inhumed therein, often lying down in the posture used by the ancients as they took their meals. The capacity or size of the sarcophagi was also of course very various.

The sarcophagus in which the body of Alexander the Great was supposed to be entombed is one entire block of Egyptian marble, and is now in the British Museum, a prize for which we are principally indebted to the active and classical spirit of Dr. E. D. Clarke, of Cambridge. Some doubts, however, are entertained by the learned as to this being the real tomb of Alexander.

SARCOPHAGY, *n. s.* Gr. *σαρξ*, flesh, and *φάγω*, to eat. The practice of eating flesh.

There was no *sarcophagy* before the flood; and, without the eating of flesh, our fathers preserved themselves unto longer lives than their posterity.

Browne's Vulgar Errors.

SARCOT'ICK, *n. s.* Fr. *sarcotique*, from Gr. *σαρξ*. Medicines which fill up ulcers with new flesh.

The humour was moderately repressed, and breathed forth; after which the ulcer incarnated with common *sarcoticks*, and the ulcerations about it were cured by ointment of tutty. *Wiseman.*

SARDANAPALUS, the last king of Assyria, whose character is one of the most infamous in history. He clothed himself as a woman, and spun amidst companies of his concubines. He painted his face, and buried himself in the most unbounded sensuality. Having grown odious to his subjects, a rebellion was formed against him by Arbaces the Mede, and Belesis the Babylonian. They were attended, however, with very

bad success at first, being defeated with great slaughter in three pitched battles. With great difficulty Belesis prevailed upon his men to keep the field only five days longer; when they were joined by the Bactrians, who had come to the assistance of Sardanapalus, but had been prevailed upon to renounce their allegiance to him. With this reinforcement they twice defeated the troops of Sardanapalus, who shut himself up in Nineveh, the capital of his empire. He was here closely besieged, while the conspirators received large accessions of strength from the revolt of the different provinces; but Sardanapalus confided in the prediction that 'Nineveh could never be taken, unless the river became her enemy.' The city being well supplied with provisions, the confederate forces remained two whole years before it without producing any impression, till at length the Tigris, having been swollen by unusual quantities of rain, overflowed twenty stadia (two miles and a half) of the wall, and thus made a practicable breach. Sardanapalus now, dreading to fall into the hands of an enraged enemy, retired into his palace, in a court of which he caused a vast pile of wood to be raised; and heaping upon it all his gold and silver, and royal apparel, and at the same time enclosing his eunuchs and concubines in an apartment within the pile, he set fire to it, and thus destroyed himself. Athenæus represents the treasures thus destroyed as worth a thousand myriads of talents of gold, and ten times as many

talents of silver, i. e. about £1400,000,000 sterling.

SARDANAPALUS, another monarch of Assyria, mentioned by Clectarchus, who died of old age. Sir Isaac Newton supposes him to be the same with Esarhaddon.

SAR'DEL, *n. s.* } A sort of precious stone:
SAR'DINE STONE, } sardonyx; found in Sar-
SAR'DIUS. } dinia.

Thou shalt set it in four rows of stones; the first row shall be a *sardius*. *Exod. xxviii. 7.*

He that sat was to look upon, like a jasper and a *sardine stone*. *Rev. iv. 3.*

SARDINIA, an insular and continental kingdom of Southern Europe. The continental part occupies the north-west portion of Italy, and is bounded by Switzerland on the north, the duchies of Milan and Parma on the east, the Mediterranean on the south, and France on the west. It stretches about 200 miles from north to south, and 130 from east to west. With the island, it comprises a surface of 27,400 English square miles, and a population of 3,994,000.

All the continental dominions of the king of Sardinia had, without ceremony, been seized by the French, and were united to their empire, till the congress of Vienna, which restored it to the condition of 1792, adding the states of Genoa, and making other slight changes on the frontiers of Switzerland and France. It contains at present the following countries:—

Countries.	Square miles.	Population.	Chief Towns.	Inhabitants.
Piedmont, with the county of Nice	7900	1,750,000	Turin	85,000
Duchy of Montferrat	900	186,000	Casale	15,000
Part of the duchy of Milan	3300	556,000	Alessandria	35,000
Territory of the late Republic of Genoa	2300	532,000	Genoa	80,000
Savoy (not properly included in Italy)	3800	450,000	Chamberri	12,000
Island of Sardinia, with the adjacent Isles	9200	520,000	Cagliari	30,000

Piedmont thus appears one of the best peopled districts in Europe, while the mountainous duchy of Savoy is the most thinly peopled of the continental states. Intersected from north to south by the Maritime Alps, Continental Sardinia can scarcely be excelled in sublime mountain scenery. The ridge that, sweeping round the gulf of Genoa, joins the Appennines, gives a fine character to the southern regions, while all the centre and eastern districts form part of the grand basin of the Po, the greatest river of this kingdom. The summit of Mont Blanc, rising 15,660 feet above the level of the sea, with Mont Cenis, Mont Viso, and several other lofty peaks, serrate the western chain; and the noble St. Bernard, Mont Rosa, and others of the great Alps, rise majestically on its northern frontier. The Tanaro, the Siara, and other rivers, fall into the Po, from the south and south-east; while the Doira, Baltea, the Sesia, and the Tesino, enter it from the north. The last separates the Austrian from the Sardinian dominions. Most of the lakes in northern Italy are situated between the eastern confines of Sardinia and the top of the Adriatic. Lago Maggiore forms a part of the north-west boundary, while that of Geneva stretches along the borders of Switzerland.

The soil in the lower parts of these territories is a rich sandy loam, intermixed with gravel; but the more elevated parts are chiefly composed of rock. The climate is hot in the valleys; on the hills mild; and on the mountains severe: but in most places, except the marshy plains, it is salubrious. The annual temperature of Genoa, in the immediate vicinity of the sea and the mountains, is about 61° of Fahrenheit's thermometer. In the lower parts all kinds of European grain, with Indian corn, rice, and hemp, are produced. Oranges, lemons, olives, vines, mulberries, figs, and other fruits, are of the finest flavor; and rich pastures feed, in several places, large herds of cattle. Irrigation is practised to a great extent. Silk is a valuable product, and of good quality here. The Alps of Piedmont contain gold, silver, and copper; the last, in the duchy of Aosta, is often mixed with antimony, zinc, and arsenic. A vein of cobalt has been discovered not long since, a little east of Mont Blanc, and plumbago near Binay. Green porphyry is found on Mont Viso, and various inferior precious stones in other places. Valuable marbles are also found in many parts: and some of the mineral waters are in good repute; particularly the baths of Binay.

SARDINIA, THE ISLAND OF, is fifty-five leagues long, north and south, and twenty-five broad, having upwards of 200 leagues of coast. On the north it is mountainous, but has extensive plains, marshes, and lakes, towards the south. It has productive iron and lead mines, some poor silver ones, copper, pyrites, precious stones, porphyry, marbles, alabaster, and some thermal springs. The two principal rivers are the Oristano and Fumendosa. The former, also called the Tirsi, empties itself into the gulf of Oristano on the west coast, and the latter on the south-east coast. There is said to be an inland navigable communication between Cagliari and Oristano, principally by the river Mariel, which empties itself into the gulf of Cagliari. The soil in the valleys is fertile, producing wheat and barley, and all the fruit trees of Europe, besides oranges, lemons, jujubes, grapes, palms, caroubes, lentisk (*cistus ladanum*), tobacco, &c. The horse is here met with in a wild state: it is small, well made, and very active. The asses are strong; the mules few; the hogs excellent, being fed on chestnuts. The wild quadrupeds are small deer, abundance of wild hogs: the muffoli, or wild sheep, inhabits the most solitary parts of the mountains. The island of Assinara has numbers of land turtle, and sea turtle are taken on the coasts as well as tunny fish, but both anchovies and sardines are scarce. The small bustard and wild-ducks abound. The climate is in general healthy, except in the vicinity of the morasses, which cause putrid fevers. The population is about 50,000, and the revenues do not exceed £80,000. Surrounded by people highly civilised, the Sardes are still in a state of surprising barbarity. In the country the men are clothed in goat-skins, one before and another behind, without breeches, shoes, or stockings, and a woollen or skin cap on the head. The women have no other habili-ment than a long woollen gown and a woollen cap. The peasants always go armed to defend themselves from one another; for they are all robbers and assassins, so that travelling in the interior is extremely unsafe without an escort; and it is even dangerous for ships to send their people on shore for water unless they are well armed. In short, the Sardes are the Malays of the Mediterranean. They are, however, strongly attached to their king and country. The barbarism of the peasantry is strongly contrasted by the pomp and outward show of the citizens of the capital, all of whom, mechanics not excepted, strut about with bag-wig, sword, and chapeau bras; and even in this costume it is common to be solicited for charity.

The coasts are indented by numerous gulfs and lined with islets and rocks. The principal headlands are, cape Comino, the east point and north limit of the gulf of Orosei. Cape Carbonera, the south-east point and east limit of the gulf of Cagliari: off it is the rocky island Cortellazzo (*Ficaria*), the west point of which is foul, but there is a good road on its north-west: on it is a castle, and north-east of it are two small islands, with a watch-tower on each; the outermost is named *Serpentaria*. Cape Pola, the west point of the gulf of Cagliari, is a low

rocky point with a watch-tower, and off it two rocky islets. Cape Tavolaro, or Teulado, is the south-west point of the island, and east point of the gulf of Palma. Cape de Napoli, or la Fresca, the south point of the gulf of Oristano, on the middle of the west coast. Cape della Cacia (*Nympheus*) on the north-west. Cape Falcon (*Gorditatum*) is the north-west point of the island.

The chief gulfs are Terra-Nova on the north-east, the north point of which is cape Figueri; Porto Cavallo within the islands Tavolaro, and others. The gulf of Orosei, between cape Comino and Monte Santo; the bay of Oliastro, south of cape Monte Santo, and of which cape Bellevue is the south point. The gulf of Cagliari on the south-east, at the head of which is Cagliari (*Calaris*), the capital of the island, containing 25,000 inhabitants. Its port is formed by two moles, and receives vessels of twelve feet. The gulf of Rosso has cape Tavolaro for its west point: near its head is the isle *Rossa*, tolerably large, flat, and very rocky, within which is good anchorage before a river. The gulf of Palma, at the south-west extremity of the island, is formed by the main land on the east, and by the island *Antiocha*, also called *St. Jago* and *Palma de Sal* (*Plumbaria*), on the west, which is three leagues long and one broad. In the entrance of the gulf are two great rocks, named the *Bull* and *Cow*. A league north-west of *Antiocha*, and three leagues from the main, is the island *San Pietro* (*Accepitrum*), rocky, barren, and surrounded by islets, with fort *St. Carlos* on its east side. The gulf of Oristano on the middle of the west coast. *Porto Conta* on the north-west is a good harbour whose entrance is protected by two towers; that on the right on an elevation seventy feet high, and so perpendicular that the ascent is by a rope ladder. There is good anchorage throughout the port, except near the town, where are some rocks level with the sea. At the head of the port is a spring of brackish water.

The north coast of the island curves greatly inward, forming a large gulf between the island *Asinara* on the north-west and *Cape Scardo*, the north point of Sardinia. The island *Asinara* (*Herculis*) is separated from *cape Falcon* by a channel with but two fathoms, and in it is the little island *Piana*. *Asinara* is very irregular, but three leagues in its greatest length. On its east side is *Porto Trabuco*, well sheltered, and with good anchorage in six and eight fathoms. *Sassari*, the second town of the island, is on the river *Fiuminargia*, four leagues from the sea. Its port, named *Torres*, is at the mouth of the river, secured by two moles. Off the north-east end of Sardinia are the isles *Madelaine* (*Hermæa*), between which and the main is an excellent road for the largest ships. On the largest island is a village and several forts, and here beef, wine, and vegetables may be procured for a fleet, and water from a considerable river on the main.

Sardinia, as well as Corsica, passed under the dominion of successive masters, until it came in the seventh century under that of the Saracens, who were driven from it by the Pisans and

Genoese, and the Genoese were dispossessed of it by the king of Arragon in 1330. It remained with Spain until 1703, when it was taken by the English for the emperor of Germany, who in 1720 ceded it with the title of kingdom to the house of Savoy.

'The inhabitants of Sardinia,' says Mr. Salt, '(I speak of the common people,) are yet scarcely above the negative point of civilisation; perhaps it would be more correct to say that they appear to have sunk a certain way back into barbarism. They wear, indeed, linen shirts, fastened at the collar by a pair of silver buttons, like hawks' bills; but their upper dress of shaggy goat skins is in the pure savage style. A few have gone one step nearer to perfectibility, and actually do wear tanned leather coats, made somewhat in the fashion of the armor worn in Europe in the fifteenth century. With such durable habiliments, it is easy to conceive that they do not require much assistance from the manufactures of foreign countries.'

SARDIS, or SARDES, now called SARDO or SART, an ancient town of Asia, in Natolia, about forty miles east of Smyrna. It was much celebrated in early antiquity, was enriched by the fertility of the soil, and had been the capital of the Lydian kings. It was seated on the side of mount Tmolus; and the citadel, placed on a lofty hill, was remarkable for its great strength. It was the seat of king Cræsus, and was in his time taken by Cyrus; after which the Persian satrap or commandant resided at Sardis, as the emperor did at Susa. The city was also taken, burnt, and evacuated by the Milesians in the time of Darius, and the city and fortress surrendered on the approach of Alexander after the battle of the Granicus. Under the Romans, Sardis was a very considerable place till the time of Tiberius Cæsar, when it suffered prodigiously by an earthquake. The munificence of the emperor, however, was nobly exerted to repair the damages. Julian attempted to restore the heathen worship in the place. He erected temporary altars where none had been left, and repaired the temples where any vestiges remained. In the year 400 it was plundered by the Goths, and it suffered considerably in the subsequent troubles of Asia. On the incursions of the Tartars, in 1304, the Turks were permitted to occupy a portion of the citadel, separated by a strong wall with a gate, and were afterwards murdered in their sleep. The site of this once noble city is now green and flowery, the whole being reduced to a poor village. There are, however, some curious remains of antiquity about it, and some ruins which display its ancient grandeur.

The SARDIUS, SARDEL, or SARDINE STONE, was a precious stone of a blood red color. The best came from Babylon.

SARDONYX, *n. s.* A precious stone. See below.

The onyx is an accidental variety of the agate kind; 'tis of a dark horny colour, in which is a plate of bluish white, and sometimes of red: when on one or both sides the white there happens to lie also a plate of a reddish colour, the jewellers call the stone a sardonyx.

Woodward.

The SARDONYX is a precious stone consisting of a mixture of white and red cornelian, sometimes in strata, but at other times blended together. It is found 1. Striped with white and red strata, which may be cut in cameo as well as the onyx. 2. White with red dendritical figures, greatly resembling the mocha stone; but with this difference, that the figures in the sardonyx are of a red color, in the other black. The sardonyx was highly esteemed among the ancients; the Romans used it in rings and other articles of jewellery. According to Pliny, the rings of knights and senators were frequently adorned with the sardonyx. Martial uses the expression *sardonychata manus* to indicate a hand embellished with rings of sardonyx.

SARI, a commercial town of Mazanderan, Persia, on the coast of the Caspian. It is an ancient city, alluded to by the poet Ferdusi; and, when visited by Hanway, contained four or five temples, built of the most solid materials, with rotundas, thirty feet in diameter, and nearly 120 feet high. Sari is well fortified, having a good wall and deep ditch, and a palace the residence of one of the Persian princes. It is crowded with inhabitants, we are told, and a society of Armenians is established in its vicinity. It has a brisk trade with Astracan and the interior. Long. 52° 58' E., lat. 35° 35' N.

SARISBURIENSIS (Joannes), or John of Sarisbury, an English writer, born at Rochester about 1110, and who went to France in 1126. He was sent by Henry II. to pope Eugenius, and was much patronised by him and his successor, and by Thomas à Becket, the chancellor, whom he accompanied in his travels to France. When Becket was murdered, Sarisbury was severely wounded in the arm, defending him. He afterwards went to France, where he was made bishop of Chartres in 1179. He died about 1181. He wrote, 1. *Policraticon, sive de Nugis Curialium, et Vestigiis Philosophorum*; 2. *Letters*; 3. *The Life of Thomas à Becket*; and, 4. *A Treatise upon Logic and Philosophy*.

SARK, *n. s.* Sax. *scjnk*. A shark or shirk; in Scotland, a shirt.

Faunting beaux gang with their breast open, and their *sarks* over their waistcoats. *Arbutnot.*

SARK, in geography, a British island in the English Channel, near the coast of France; about six miles east of Guernsey, on which it is dependent, and west of Jersey. The climate is healthy, and the land, though sandy, sufficiently fertile to produce provisions for its inhabitants. It is about two miles square, and contains about 450 inhabitants. The island is surrounded with steep rocks, and the air is in general serene, free from fogs and damps, and remarkably healthy.

SARLAT, a town, the capital of an arrondissement in the department of the Dordogne, in the south-west of France, situated on the Sarlat. It has nothing interesting except a few Roman remains, the houses being ill built, and the streets narrow. Before the revolution it was the seat of a bishop. Population 6000. Thirty miles south-east of Perigueux, and ninety-eight miles by north of Bordeaux.

SARMATIA, in ancient geography, an exten-

sive country at the north of Europe and Asia, lying partly in the former and partly in the latter; comprehending all Poland, Russia, and great part of Tartary. Littleton. It was divided into European and Asiatic.

ASIATIC SARMATIA was bounded by Hyrcania, the Tanais, and the Euxine Sea. It contained Great Tartary, Circassia, and the neighbouring country.

EUROPEAN SARMATIA was bounded by the ocean on the north, Tanais on the east, the Jazygæ on the south, and the Vistula on the west. It contained the modern countries of Russia, Poland, Lithuania, and Little Tartary. Lempriere.

SARMATIANS, Sarmatii, the ancient inhabitants of Sarmatia. They were a savage uncivilized nation, often confounded with the Scythians, naturally warlike, and they painted their bodies to appear more terrible in battle. They were infamous for their lewdness, and in the time of the emperors they became very powerful, and disturbed the empire by their frequent incursions; till at last, increased by the savage hordes of Scythia, they successfully invaded, and finally ruined the empire in the third and fourth centuries. They generally lived on the mountains, without houses, residing in their chariots, whence they were called Hamaxobii. They lived upon plunder, and fed upon milk mixed with the blood of horses.

SARMATIAN SEA, or **SARMATICUM MARE**, a name given to the Euxine Sea, because on the coast of Sarmatia. Ovid.

SARNO, an inland town of Naples, in the Principato Citra, near the base of Mount Vesuvius, remarkable for the superior quality of the silk raised in its environs. It has an old castle belonging to the Barberini family, who are dukes of Sarno. It is the see of a bishop. Inhabitants 12,000. Twenty miles east of Naples, and twelve north by west of Salerno.

SARONICUS SINUS, the Saronic Bay, in ancient geography, a bay of the Ægean Sea, on the south of Attica, and north of Peloponnesus: so named from Saron king of Trœzene, who was drowned in it, swimming after a stag. The entry to it was between the promontories of Sunium and Scylla.

SAROS, or **SCHAROS**, a county of Hungary, separated from Austrian Galicia by the Carpathians. Its area is about 1400 square miles, containing several lofty mountains, the chief of which are called Simonka and Oblik. The mineral springs are numerous; but there are few mines, except of salt: there is also a mine of opals at Czerventz. The cold is rather intense, on account of the vicinity of the mountains; but corn succeeds, and vines in particular spots. Population 142,000. The chief town is Eperies.

SAROS-PATAK, a well built town of the north-east of Hungary, on the Bodrog. It has a Catholic, Calvinist, and Greek church. Here is also a Calvinist college, on a large scale. Inhabitants 8000. Fourteen miles north by east of Tokay, and 125 E. N. E. of Pest.

SAROTHA, in botany, bastard gentian, a genus of the trigynia ord., and pentandria class of plants; natural order twentieth, rotaceæ;

cor. pentapetalous: caps. unilocular, trivalved, and colored.

SARPEDON, in fabulous history, the son of Jupiter by Europa, and younger brother of Minos, with whom he stood competitor for the kingdom of Crete. Failing in that attempt, he went to Caria, and built Miletus.

SARPEDON, another son of Jupiter by Laodamia, daughter of Bellerophon, flourished about a century later than the brother of Minos. He went to the Trojan war to assist king Priam against the Greeks, where he was attended by his faithful friend Glaucus. He made a great slaughter of the Greeks; but was at last killed by Patroclus.

SARRACENA, or **SARRACONIA**, in botany, side-saddle flower, a genus of the monogynia order, and polyandria class of plants; natural order fifty-fourth, miscellanæ: cor. pentapetalous: cal. double, triphyllous below, pentaphyllous above: caps. quinquelocular; the style has a stigma of the form of a shield. Species four, all natives of America.

SARRASIN, or **SARRAZIN**, in fortification, a kind of portcullis, otherwise called a herse, which is hung with ropes over the gate of a town or fortress, to be let fall in case of a surprise.

SARSAPARILLA, in botany. See **SMILAX**. **SART**, an insignificant village of Asia Minor, distinguished by containing on its site the ruins of Sardis. These are confusedly scattered over a large verdant plain, and consist largely of bricks, so strongly cemented as to make it scarcely possible to detach them. They seem to have no tendency to crumble to pieces by mere time.

SARTHE, or **SARTE**, a department of the north-west of France, comprising the greater part of the former province of Maine, and bounded by the departments of the Orne, the Loir and Cher, and the Mayenne. It is nearly of a circular form, and has a superficial and level extent of 2430 square miles, except in the north-west part, where there are small hills. Lime and sand predominate in the soil, which yields luxuriant fields of corn. The principal rivers are the Sarthe, the Loir, the Huine. The climate is mild, and the air healthy. The productions, beside corn, are flax, hemp, vines, and fruits. Here are also some iron mines and marble quarries. Grazing is followed to a considerable extent: the principal manufactures are of hardware, leather, paper, and woollens. The department is in the diocese of Le Mans, and jurisdiction of the cour royale of Angers, and is divided into four arrondissements, Le Mans (the capital), La Fleche, Mamers, and St. Calais. Population 410,000.

SARTORIUS (from sartor, a tailor; because tailors cross their legs with it), a flat slender muscle which is the longest of the human body, and from an inch and a half to two inches in breadth, situated immediately under the integuments, and extending obliquely from the upper and anterior part of the thigh, to the upper anterior part of the tibia; being enclosed by a thin membranous sheath, which is derived from the adjacent fascia lata. It serves to bend the leg obliquely inwards, or to roll the thigh outwards,

and at the same time to cross one leg over another. See ANATOMY.

SARUM, OLD, formerly a borough of Wiltshire, about one mile north of New Sarum or Salisbury. It has the ruins of a fort which belonged to the ancient Britons; and is said also to have been a Roman station. In the north-west angle stood the palace of the bishop, whose see was removed hither from Wilton and Sherborn; but, the bishop quarreling with king Stephen, he seized the castle and put a garrison into it, which was the principal cause of its destruction, as the see was soon after removed hence to Salisbury in 1219. Here synods and parliaments have formerly been held, and hither were the states of the kingdom summoned to swear fidelity to William the Conqueror. Here also was a palace of the British and Saxon kings, and of the Roman emperors; which was deserted in the reign of Henry III., for want of water, so that one farm-house is all that is left of this ancient city; it was called the Borough of Old Sarum, and sent two members to parliament, who were chosen by the proprietors of certain adjacent lands. It was disfranchised in 1832.

SARUN, an extensive district of Hindostan, in the province of Bahar, on the north-east side of the Ganges; one of the most prosperous for its size in the British territories. The Ganges, Gunduck, and several other streams, render it rich in pasture, and it produces excellent cattle and horses. A great quantity of the saltpetre exported from Calcutta is manufactured here; the inhabitants are about one-fourth Mahometans. The chief town is Chuprach.

SARZEDAS, an inland town of the north of Portugal, supposed to be the Oppidum Sarsidense of the Romans; eight miles west of Castel Branco, and 117 E. N. E. of Lisbon. It contains 3000 inhabitants, and various antiquities. Particles of gold are found in the Lica at a little distance.

SASCACHAWAN, or **SASKATCHIWINE**, a considerable river of North America, rising in the Rocky Mountains. Its two principal branches are the north and south, which, pursuing very winding courses to the east, for about 440 miles, in a direct line, join about sixty miles east of Hudson's House, and then run north-east through Pine Island Lake, and Cedar Lake, into Lake Winnipic, in lat. 51° 45' north. As far as Cedar Lake, the navigation is interrupted by falls and rapids; but above this lake it may be considered navigable for canoes to its sources. On the banks are five principal factories of the North-west company.

SASH, *n. s.* *Fr. chassis.* Of this word, says Johnson, the etymologists give no account: I suppose it comes from *scache*, of *scavoir*, to know, a sash window being a mark of distinction; and a sash window being made particularly for the sake of seeing and being seen. A belt worn by way of distinction; a silken band worn by officers in the army. A window so formed as to be let up and down by pulleys.

She ventures now to lift the sash;
The window is her proper sphere. *Swift.*
She broke a pane in the sash window that looked
into the yard. *Id.*

SASHES, in military dress, are worn by the officers of most nations, either round their waist or over their shoulders. Those for the British army are made of crimson silk.

SASNEE, a town and fortress of Hindostan, province of Agra, once the residence of a zemindar, who, having proved refractory, was expelled by the British after a desperate resistance in 1803. Long. 78° 4' E., lat. 27° 45' N.

SASSAFRAS, in botany. See **LAURUS**.

SASSARI, a considerable town and province of the island of Sardinia, standing in a luxuriant neighbourhood, and abounding with some rivers. It is the seat of the courts of justice, as well as of a university, and several lesser seminaries. It is likewise the see of an archbishop, and contains an unusual number of churches. The harbour, called Porto Torre, is situated on the gulf of this name, about ten miles from the town, and communicates with it by means of a river. Sixty-four miles north of Oristano.

SATALIA, **ANTALIA**, or **ADALIA**, a city of Caramania, on the site of the ancient Olbia, and beautifully situated round a small harbour: on the level summit of the hill the city is enclosed by a ditch, a double wall, and a series of square towers, about fifty yards asunder. Between two of the towers appear the remains of a splendid gateway, exhibiting fourteen columns, the upper parts of which are of the Corinthian order. The inside walls and towers appear to have been well built. The port is enclosed by two stone piers, which once had towers on the extremities; but they are now in a ruinous state. The gardens round the town are beautiful. Population 8000.

SATARAH, a celebrated town and fortress of Bejapoor, Hindostan, occupying the point of a rock at the west of a range of hills, and having only a very narrow passage up to it, admitting but a single person. After it had capitulated to the British, in February 1818, the officers declared that 200 men might defend it against any force. Taken originally from the king of Bejapoor, by the Mahratta chief Sevajee, in 1673, this fortress was captured by Aurungzebe in 1690, but was retaken soon after the death of that monarch in 1707, and is now the capital of a Mahratta state. It owes its celebrity principally to its having been for a long period the residence or state prison of the Maha rajah. Here he was confined about the middle of the last century by the peishwa, who usurped the government, still inserting the name of the rajah in all public records and forms. It stands in long. 74° 3' E., lat. 17° 30' N., a short distance north of the Kistnah.

SATCHEL, *n. s.* *Teut. scckel; Lat. sacculus.* A little bag; commonly a bag used by schoolboys to carry books.

The whining schoolboy with his satchel,
And shining morning face, creeping like snail
Unwillingly to school. *Shakspeare. As You Like It.*
Schoolboys lag with satchels in their hands.

Swift.

SATE, *v. a.* } Both verbs, from
SATIATE, *v. a.* & *n. s.* } Latin *satio*, signify
SATIETY, *n. s.* } to feed abundantly;
fill; satisfy: and the first is commonly confined

to the idea of filling to repletion, or over fulness, or beyond natural desire: satiety is fulness beyond desire or pleasure; hence wearisomeness of abundance.

He leaves a shallow plash to plunge him in the deep,
And with *satiety* seeks to quench his thirst.

Shakspeare.

Those smells are the most grateful where the degree of heat is small, or the strength of the smell allayed; for these rather woo the sense than *satiare* it.

Bacon.

Nothing more jealous than a favourite, especially towards the waining time and suspect of *satiety*.

Wotton.

I may yet survive the malice of my enemies, although they should be *satiated* with my blood.

King Charles.

In all pleasures there is *satiety*; and after they be used, their verdure departeth.

Hakewill.

Sated at length, ere long I might perceive
Strange alteration in me.

Milton's Paradise Lost.

They *satiare* and soon fill,
Though pleasant; but thy words, with grace divine
Imbued, bring to their sweetness no *satiety*.

Milton.

Whatever novelty presents, children are presently eager to have a taste, and are as soon *satiated* with it.

Locke.

How will their bodies stript
Enrich the victors, while the vultures *sate*
Their maws with full repast.

Philips.

The loosened winds
Hurled high above the clouds; till all their force
Consumed, her ravenous jaws, the earth *satiated* closed.

Id.

He may be *satiated*, but not satisfied.

Norris.

No action, the usefulness of which has made it the matter of duty, but a man may bear the continual pursuit of, without loathing or *satiety*.

South.

Thy useless strength, mistaken king, employ,
Sated with rage, and ignorant of joy.

Prior.

Why does not salt of tartar draw more water out of the air than in a certain proportion to its quantity, but for want of an attractive force after it is *satiated* with water?

Newton.

Our generals retired to their estates,
In life's cool evening, *satiare* of applause,
Nor think of bleeding even in Brunswick's cause.

Pope.

The joy unequalled, if its end it gain,
Without *satiety*, though e'er so blest,
And but more relished as the more distressed.

Id.

SATELLITE, *n. s.* } Fr. *satellite*; Lat. *SAT'ELLOUS*, *adj.* } *satelles*. Pope has in the plural continued the Latin form, and assigned it four syllables. I think, says Johnson, improperly. A small planet revolving round a larger: consisting of satellites.

Four moons move about Jupiter, and five about Saturn, called their *satellites*.

Locke.

The smallest planets are situated nearest the sun and each other; whereas Jupiter and Saturn that are vastly greater, and have many *satellites* about them, are wisely removed to the extreme regions of the system.

Bentley.

Ask of yon argent fields above,
Why Jove's *satellites* are less than Jove?

Pope.

SATELLITES, in astronomy. See **ASTRONOMY**.

SATGONG, an ancient royal port of Bengal, known to the Romans by the title of Ganges Reggia, and formerly the residence of the kings of that country. The district belonging to it contained 700 square miles. It is mentioned in

De Barro's Portuguese History, supposed to have been written about the year 1530, as being as great and noble as Chatigong, but less frequented, because its port is not so convenient for the entry and departure of shipping. It is first spoken of by the Mahometan historians in 1592, when it was plundered by the Afghauns. The Dummoada is supposed formerly to have fallen into the Bhaguruttu above Satgong. The town stands two or three miles from the river side, and four from Hoogly. Long. 88° 30' E., lat. 22° 57' N.

SATHMAH, a county of Hungary, adjacent to Transylvania, on both sides of the river Szamos. Its territorial extent is 2250 square miles. Many tracts are sandy, others strewed with soda, or covered with marshes; the marsh of Etsed is twenty-eight miles in length; yet this country produces on the whole a considerable quantity of wheat, maize, and wine. Particular districts contain mines of salt and metals. The chief town is Nagy-Caroly. Population 187,000.

SATHMAR, or **SATHMAR NEMETHI**, a town of Hungary, in the palatinate of the same name, situated on the Szamos, 255 miles south of Presburg. It consists of two parts, Sathmar and Nemethi, standing on the two sides of the river, and previous to 1715 forming two distinct towns. The inhabitants carry on an active trade, and produce a large quantity of wine. In the neighbourhood are salt-mines. Sathmar is a bishop's see, erected in 1806, and has a Catholic seminary, one Greek and two Calvinist churches.

SATIMANGALUM, a town and strong fortress of the province of Coimbeetoor, South of India. The fort was built in the seventeenth century, by Trimula Naick, governor on the part of the rajah of Madura. It was taken about fifty years afterwards by the rajah of Mysore, and by the British in the year 1792. It contains a temple, dedicated to Vishnu, and is inhabited by weavers of coarse cotton cloth. A severe battle was fought in the vicinity of this place between the British and the troops of Tippoo. Long. 77° 20' E., lat. 10° 28' N.

SATIN, *n. s.* Fr. *satin*; Ital. *setan*; Belg. *sattin*. A soft close, shining silk.

SATIN, in the arts, has become of late an article of considerable use for hats. See **SILK MANUFACTURE**.

SATIRE, *n. s.* } Fr. *satire*; Lat. *satira*,
SATIR'IC, *adj.* } anciently *satura*. A
SATIR'ICAL, } poem in which wicked-
SATIR'ICALLY, *adv.* } ness or folly is censured.
SAT'IRIST, *n. s.* } Proper satire, says John-
SAT'IRIZE, *v. a.* } son, is distinguished by

the generality of the reflection from a lampoon which is aimed against a particular person: the adjective and adverb strictly agree with the noun substantive: a satirist is a writer or utterer of satires: to satirize, to censure as in a satire.

SATIRE; in the widest sense of the word, pungent ridicule or cutting censure of faults, vices and weaknesses; hence the phrase, "a satirical person." In a narrower sense, in which it is more commonly used, it is a poem, of which ridicule and censure are the object and chief characteristic. This species of poetry

had its origin with the Romans: the name is derived from *satur* (by no means from *satyr*), and refers, originally, to the mixture of subjects treated, and of metres used, in the earlier productions of this kind. Satire is one of the latest branches of poetry cultivated, because it presupposes not merely much natural wit, but also acute observation, and much variety of life and manners to call this wit into exercise. In fact it is only in an advanced state of society, where folly and vice force themselves on the public eye, that a taste can exist for this species of production. As the object of satire is always castigation, it is distinguished from mere wit, which may occupy itself simply with the ludicrousness of particular relations. The form of satire is very varied. It may be in the shape of epistles, tales, dialogues, dramas, (as with Aristophanes), songs, epics, fables, &c. The most common form of satire, however, is that of a didactic composition. The ancients wrote their satires in iambic and dactylic verse. The moderns generally use the iambus, sometimes the Alexandrine, (q. v.), sometimes the iambic verse of five feet, the latter sometimes with, sometimes without, rhyme. The proper didactic satire originated, as we have said, with the Romans; and its inventor was Lucilius: Horace, Juvenal, and Persius developed it. Vulpus, Casaubon, and König have written on the Roman satire. Of the modern satirists, we may mention, among the Italians, Ariosto, Alamanni, Salvator Rosa, Mezzini, Dotti, Gasparo Gozzi, Alfieri, &c.; among the Spaniards, Cervantes, Quevedo, and Saavedra; among the French, Regnier, Boileau, and Voltaire, &c.; among the Germans, Seb. Brand, Ulr. Hutten, Fischart, Haller, Rabener, Lichtenberg, Falk, Wieland, &c.; among the English, Donne, Rochester, Dryden, Butler, Pope, Swift, Young, Churchill, Johnson, Peter Pindar (Wolcot), Gifford, Mathias; among the Poles, Krasiczky. The Greeks had not the proper satire. The poem of Archilocus, and that of Simonides, were more properly lampoons; and the *silli* had probably a didactic form, but were of the nature of parody. Entirely different from the satire was the *drama satyricum* of the Greeks, invented by Pratinas—a mixture of tragic, at least heroic action with comic. These dramas served as interludes and after-pieces, and had a low comic character. We possess only one—the *Cyclops* of Euripides.—See Eichstadt, *De Dramate Græcorum comico-satyrico*, &c., and Herrmann and Pinzger on the same subject.

SATISFY, *v. a. & v. n.* } Fr. *satisfaire*;
 SATISFAC'TION, *n. s.* } Lat. *satisfacio*. To
 SATISFAC'TIVE, *adj.* } content; please to
 SATISFAC'TORY, } contentment; re-
 SATISFAC'TORILY, *adv.* } compensate; con-
 SATISFAC'TORINESS, *n. s.* } vince; appease;
 free from doubt or perplexity; make payment;
 give content: the noun substantive corresponds
 to satisfactory and satisfactory mean giving content
 or gratification; atoning: the adverb and noun
 substantive following correspond.

Who hath caused it to rain on the earth to satisfy
 the desolate and waste ground, and to cause the bud
 of the tender tree to spring forth? *Job.*

A most wise and sufficient means of redemption
 and salvation, by the *satisfactory* and meritorious
 death and obedience of the incarnate son of God,
 Jesus Christ. *Sanderson.*

They strain their memory to answer him *satisfac-*
torily unto all his demands. *Digby.*

Die he, or justice must; unless for him
 Some other able, and as willing, pay
 The rigid *satisfaction*, death for death. *Milton.*

Will he draw out,
 For anger's sake, finite to infinite
 In punished man, to *satisfy* his rigour,
Satisfied never? That were to extend
 His sentence beyond dust and Nature's law. *Id.*

By a final and *satisfactive* discernment of faith, we
 lay the last effects upon the first cause of all things.
Broune.

Bellonius hath been more *satisfactorily* experimen-
 tal, not only affirming that chameleons feed on flies,
 but upon exenteration he found these animals in their
 bellies. *Id.*

The incompleatness of the seraphick lover's hap-
 piness in his fruitions proceeds not from their want
 of *satisfactoriness*, but his want of an entire posses-
 sion of them. *Boyle.*

Of ev'ry nation each illustrious name,
 Such toys as these have cheated into fame;
 Exchanging solid quiet to obtain
 The windy *satisfaction* of the brain.

Dryden's Juvenal.
 Of many things useful and curious you may *satisfy*
 yourselves in Leonardo de Vinci. *Dryden.*

'Tis a wretched *satisfaction* a revengeful man takes,
 even in losing his life, provided his enemy go for
 company. *L'Etrange.*

The mind, having a power to suspend the execu-
 tion and *satisfaction* of any of its desires, as at liberty
 to consider the objects of them. *Locke.*

An intelligent American would scarce take it for a
satisfactory account, if, desiring to learn our architec-
 ture, he should be told that a pillar was a thing sup-
 ported by a basis. *Id.*

This I would willingly be *satisfied* in, whether the
 soul, when it thinks thus, separate from the body,
 acts less rationally than when conjointly with it? *Id.*

Run over the circle of earthly pleasures, and, had
 not God secured a man a solid pleasure from his own
 actions, he would be forced to complain that pleasure
 was not *satisfaction*. *South.*

I'm *satisfied*. My boy has done his duty. *Addison.*

The standing evidences of the truth of the Gospel
 are in themselves most firm, solid, and *satisfying*.
Atterbury.

SATURATE, *v. a.* } Lat. *satura*. Fully to
 SATURABLE, *adj.* } impregnate: impregna-
 ble with any thing till it will receive no more.

Be the figures of the salts never so various, yet, if
 the atoms of water were fluid, they would always so
 conform to those figures as to fill up all vacuities;
 and consequently the water would be *saturable* with
 the same quantity of any salt, which it is not.
Grew's Cosmol. Sacra.

Rain-water is plentifully *saturated* with terres-
 trial matter, and more or less stored with it.
Woodward.

His body has been fully *saturated* with the fluid of
 light, to be able to last so many years without any
 sensible diminution, though there are constant eman-
 ations thereof. *Cheyne.*

Still night succeeds
 A softened shade, and *saturated* earth
 Awaits the morning beam. *Thomson.*

SATURATION, in chemistry, is the impregnating an acid with an alkali, or vice versa, till either will receive no more, and the mixture will then become neutral. Some substances unite in all proportions. Such, for example, are acids in general, with water, and many of the metals with each other. But there are likewise many substances which cannot be dissolved in a fluid, at a settled temperature, in any quantity beyond a certain proportion. Thus water will dissolve only about one-third of its weight of common salt, and if more be added it will remain solid. A fluid, which holds in solution as much of any substance as it can dissolve, is said to be saturated with it. But saturation with one substance does not deprive the fluid of its power of acting on and dissolving some other bodies, and in many cases it increases this power. For example, water saturated with salt will dissolve sugar.

SATURDAY, *n. s.* Sax. *æterebræg*, or *æterebræg*, according to Verstegan, from *ætere* a Saxon idol; more probably from Saturn, dies Saturni. The last day of the week.

This matter I handled fully in last *Saturday's Spectator*.

Addition.

SATURDAY, the seventh day of the week, is so called from the idol Seater, worshipped on this day by the ancient Saxons, and thought to be the Saturn of the Latins.

SATUREIA, savory, in botany, a genus of the gymnospermia order, and didynamia class of plants; natural order forty-second, verticillate: segments of the corolla nearly equal; the stamina standing asunder.

1. *S. hortensis*, or summer savory, is an annual plant, which grows naturally in the south of France and Italy, but is cultivated in this country both for the kitchen and medicinal use. Summer savory is a very warm pungent aromatic; and affords in distillation with water a subtle essential oil, of a penetrating smell, and very hot acrid taste. It yields little of its virtues by infusion to aqueous liquors; rectified spirit extracts the whole of its taste and smell, and elevates nothing in distillation.

2. *S. montana*, or winter savory, is a perennial plant growing naturally in the south of France and Italy, but is cultivated in gardens both for culinary and medicinal purposes. Both kinds are propagated by seeds. Those of the first kind should be sown in the beginning of April upon a bed of light earth, either where they are to remain, or for transplanting. If the plants are to stand unremoved, they should be sown thinly; but if they are to be transplanted, they may be sown closer. The second species may be sown upon a poor dry soil, where the plants will endure the severest winters, though they are often killed by the frost when planted in good ground.

SATURN, *n. s.* } Fr. *saturne*; Lat. *saturnus*.
SATURNINE, *adj.* } *nus*. A planet long thought
SATURNIAN. } the remotest of the solar system: supposed by astrologers to impress dulness, or severity of temper: hence the adjective, which signifies gloomy; grave; severe: and hence the opposing adjective saturnian, which signifies golden; happy; like the fabled days of the reign of Saturn.

I may cast my readers under two divisions, the

mercurial, and *saturnine*: the first are the gay part, the others are of a more sober and solemn turn.

Addition.

The smallest planets are placed nearest the sun and each other; whereas Jupiter and Saturn, that are vastly greater, are wisely removed to the extreme regions.

Bentley.

Th' Augustus, born to bring *Saturnian* times.

Pope.

From the far bounds
Of utmost Saturn, wheeling wide his round.

Thomson.

SATURN, in astronomy, one of the planets of our solar system. See **ASTRONOMY**, Index.

SATURN, in chemistry, an appellation anciently given to lead.

SATURN, in heraldry, denotes the black color in blazoning the arms of sovereign princes.

SATURN, in the ancient mythology, one of the principal of the Pagan deities, was the son of Cælus and Terra, and the father of Jupiter, Neptune, and Pluto. He deposed and mutilated his father, and obliged his brother Titan to resign his crown to him, on condition of his bringing up none of his male issue, that the succession might at length devolve on him. For this purpose he devoured all the sons he had by his wife Rhea or Cybele: but, bringing forth at one time Jupiter and Juno, she presented the latter to her husband, and sent the boy to be nursed on Mount Ida; when Saturn, being informed of her having a son, demanded the child; but in his stead his wife gave him a stone swaddled up like an infant, which he instantly swallowed. Titan, finding that Saturn had violated the contract he had made with him, put himself at the head of his children, and made war on his brother; and, having made him and Cybele prisoners, confined them in Tartarus; but Jupiter raised an army in Crete, went to his father's assistance, defeated Titan, and restored Saturn to the throne. Some time after, Saturn being told that Jupiter intended to dethrone him, endeavoured to prevent it; but the latter, being informed of his intention, deposed his father, and threw him into Tartarus. But Saturn, escaping thence, fled into Italy, where he was kindly received by Janus, king of the country, who associated him in the government: whence Italy obtained the name of Saturnia Tellus; as also that of Latium, from *lateo*, 'to lie hid.' There Saturn, by the wisdom and mildness of his government, is said to have produced the golden age. Saturn is represented as an old man with four wings, armed with a scythe. Sometimes he is delineated under the figure of a serpent with its tail in its mouth: this is emblematic of the seasons, which roll perpetually in the same circle. Sometimes, also, Saturn is painted with a sand-glass in his hand. The Greeks say that the story of his mutilating his father and destroying his children is an allegory, which signifies, that Time devours the past and present, and will also devour the future. Tatus, king of the Sabines, first built a temple to Saturn on the Capitoline hill: a second was afterwards added by Tullus Hostilius, and a third by the first consuls. On his statues were generally hung fetters, in commemoration of the chains he had worn when imprisoned by Jupiter. From his circumstance, all slaves that obtained

their liberty generally dedicated their fetters to him.

SATURNALIA, in Roman antiquity, a festival observed about the middle of December, in honor of the god Saturn, whom Lucian introduces giving an account of the ceremonies observed on this occasion, thus:—'During my whole reign, which lasts but for one week, no public business is done: there is nothing but drinking, singing, playing, creating imaginary kings, placing servants with their masters at table, &c. There shall be no disputes, reproaches, &c., but the rich and poor, masters and slaves, shall be equal,' &c. On this festival the Romans sacrificed bare-headed, contrary to their custom at other sacrifices. During its continuance no business or profession was allowed to be carried on except cookery; all distinctions of rank ceased; and slaves could say what they pleased to their masters with impunity.

SATURNIA, a name of Juno as the daughter of Saturn.

SATURNINUS (P. Sempronius), a Roman general under Valerian, who was proclaimed emperor by the troops against his inclination. He was afterwards murdered by them, for attempting to restore the ancient discipline, in his forty-third year, A. D. 262. See **ROME**.

SATURNINUS (Sextus Julius, or Junius), another Roman general, a native of Gaul, who was compelled by the soldiers to assume the title of emperor. See **ROME**. He was in favor with Aurelian.

SATYAVRATA, or **MENU**, in Indian mythology, is believed by the Hindoos to have reigned over the whole world in the earliest age of their chronology, and to have resided in the country of Dravira on the coast of the eastern Indian peninsula. His patronymic name was Vaivaswata, or child of the sun. In the Bhagavat we are informed that the Lord of the universe, intending to preserve him from the sea of destruction caused by the depravity of the age, thus told him how he was to act:—'In seven days from the present time, O thou tamer of enemies, the three worlds will be plunged in an ocean of death; but, in the midst of the destroying waves, a large vessel, sent by me for thy use, shall stand before thee. Then shalt thou take all medicinal herbs, all the variety of seeds; and, accompanied by seven saints, encircled by pairs of all brute animals, thou shalt enter the spacious ark and continue in it, secure from the flood, on one immense ocean without light, except the radiance of thy holy companions. When the ship shall be agitated by an impetuous wind, thou shalt fasten it with a large sea serpent on my horn; for I will be near thee: drawing the vessel, with thee and thy attendants, I will remain on the ocean, O chief of men, until a night of Brahma shall be completely ended. Thou shalt then know my true greatness, rightly named the supreme God-head; by my favor all thy questions shall be answered, and thy mind abundantly instructed.' This story is evidently that of Noah disguised by Asiatic fiction and allegory.

SATYR, *n. s.* Lat. *satirus*. A sylvan
SATYRIASIS. } god; supposed among the
ancients to be rude and lecherous: a disease defined below.

Satyrs, as Pliny testifies, were found in time past in the eastern mountains of India. *Peacham.*

If the chyle be very plentiful, it breeds a *satyriasis*, or an abundance of seminal lymph.

Floyer on the Humours.

The heathen lawgivers of ancient days,
Names almost worthy of a Christian's praise,
Would drive them forth from the resort of men,
And shut up every *satyr* in his den. *Couper.*

SATYRS, in ancient mythology, a species of demi-gods who dwell in the woods. They are represented as monsters, half men and half goats; having horns on their heads, a hairy body, with the feet and tail of a goat. They are generally in the train that follows Bacchus. As the poets supposed that they were remarkable for piercing eyes and keen raillery, they have placed them in the same pictures with the Graces, Muses, and even with Venus herself. It seems probable that some large species of monkey or baboon seen in the woods gave the first occasion to feign these demi-gods. Pliny evidently points out some sort of ape under the name of *Satyr*. He says satyrs are found in some mountains of India; they are nimble, running sometimes upon all four, sometimes erect like men, and they are so swift that it is difficult to overtake them except they are old or sick. To this we may add, that shepherds covered with goat skins, and still more often priests of Bacchus, counterfeited satyrs, to seduce the innocent shepherdesses; and thus we have the true explication of the fable. Hence the opinion spread that the woods were full of these mischievous divinities. The shepherdesses trembled for their honor, and the shepherds for their flocks; for which reason they sought to appease them by sacrifices, and by the offerings of the firstlings of their flocks.

SATYRIASIS. See **MEDICINE**.

SATYRIUM, in botany, a genus of the dianthria order, and gynandria class of plants; natural order forty-second, verticillate: nectarium scrotiform, or inflated double behind the flower. Species twenty-one, natives of warm climates.

SAV'AGE, *adj.*, *n. s.* & *v. a.* Fr. *sauvage*,
SAV'AGELY, *adv.* } Ital. *selvaggio*.
SAV'AGENESS, *n. s.* } Wild; uncultivated; untaught: a man untaught or uncivilised: to make barbarous (a barbarism of Thomson's): the adverb corresponding; and the noun substantives see below.

Chain me to some steepy mountain's top,
Where roaring bears and *savage* lions roam.

Shakspeare.

Your castle is surprised, your wife and babes
Savagely slaughtered. *Id. Macbeth.*

A *savageness* in unreclaimed blood
Of general assault. *Id. Hamlet.*

This is the bloodiest shame,
The wildest *savag'ry*, the vilest stroke,
That ever wall-eyed wrath, or staring rage,
Presented to the tears of soft remorse. *Shakspeare.*

Thus people lived altogether a *savage* life, 'till Saturn, arriving on those coasts, devised laws to govern them by. *Raleigh.*

Long after these times were they but *savages*. *Id.*
The seditious lived by rapine and ruin of all the country, omitting nothing of that which *savages*, enraged in the height of their unruly behaviour, do commit. *Hayward.*

I see the *savagest* of all creatures, lions, tigers, bears, by an instinct from God, come to seek the ark (as we see swine foreseeing a storm run home crying for shelter), men I see not; reason once debauched is worse than brutishness.

Bp. Hall.

The *savage* clamour drowned,
Both harp and voice.

Milton.

Cornels, and *savage* berries of the wood,
And roots and herbs, have been my meagre food.

Dryden.

A herd of wild beasts on the mountains, or a *savage* drove of men in caves, might be so disordered; but never a peculiar people.

Sprat's Sermons.

To deprive us of metals is to make us mere *savages*; to change our corn for the old Arcadian diet, our houses and cities for dens and caves, and our cloathing for skins of beasts: 'tis to bereave us of all arts and sciences, nay, of revealed religion.

Bentley.

Tyrants no more their *savage* nature kept,
And foes to virtue wondered how they wept. *Pope.*
The Cyclops were a people of Sicily, remarkable for *savageness* and cruelty.

Broome.

Friends, relations, love himself,

Savaged by woe, forget the tender tie. *Thomson.*

SAVAGE (Richard), the poet, was the son of Anne countess of Macclesfield by the earl of Rivers, according to her own confession; and was born in 1698. This confession of adultery was made to procure a separation from her husband, the earl of Macclesfield: yet, having obtained this end, no sooner was her spurious offspring brought into the world, than she resolved to disown him; and, as long as he lived, treated him with the most unnatural cruelty. She endeavoured to send him secretly to the plantations; but, this plan being frustrated, she placed him apprentice with a shoemaker. In this situation, however, he did not long continue; for his nurse dying he discovered his real mother, and therefore applied to her, and tried every art to attract her regard. But in vain did he solicit this unnatural parent; she avoided him with the utmost precaution, and took measures to prevent his ever entering her house. Mean time, having a strong taste for poetry, he wrote two plays, *Woman's a Riddle* and *Love in a Veil*: by the second of which he acquired the acquaintance of Sir Richard Steele and Mr. Wilks, by whom he was pitied, caressed, and relieved. But the kindness of his friends not affording him a constant supply, he wrote the tragedy of *Sir Thomas Overbury*, which brought him in £200. He soon after published a volume of *Miscellanies*, to which he wrote a preface, in which he gives an account of his mother's cruelty. The profits of his tragedy and his *Miscellanies* somewhat raised him both in circumstances and credit; so that the world began to behold him with a more favorable eye, when both his fame and life were endangered by a most unhappy event. A drunken frolic in which he one night engaged ended in a fray, and, swords having been drawn on both sides, Savage unfortunately killed a man, for which he was condemned to be hanged. But the countess of Hertford at length laid his whole case before queen Caroline, and Savage obtained a pardon. Savage now lost that affection for his mother which the whole series of her cruelty had not before been able wholly to repress; and considering her as an

implacable enemy, whom nothing but his blood could satisfy, threatened to harass her with lampoons, and to publish a copious narrative of her conduct, unless she consented to allow him a pension. This expedient proved successful; and lord Tyrconnel, upon his promise of laying aside his design of exposing his mother's cruelty, took him into his family, treated him as an equal, and engaged to allow him a pension of £200 a-year. This was the happy period of Savage's life. He was courted by all who wished to be thought men of genius and taste. At this time he published the *Temple of Health and Mirth*, on the recovery of lady Tyrconnel from a long illness; and the *Wanderer*, a moral poem, which he dedicated to lord Tyrconnel, in strains of the highest panegyric: but these praises he soon was inclined to retract, being discarded by the man on whom they were bestowed. Of this quarrel lord Tyrconnel and Mr. Savage gave very different accounts. But our author's conduct was ever such as made all his friends, sooner or later, grow weary of him, and even forced most of them to become his enemies. Being thus once more turned adrift upon the world, Savage, whose passions were very strong and whose gratitude was very small, exposed the faults of lord Tyrconnel. He also took revenge upon his mother, by publishing *The Bastard*. Some time after this, Savage formed the resolution of applying to the queen; who having once given him life, he hoped she might extend her goodness to him, by enabling him to support it.—With this view, he published a poem on her birth-day, which he entitled *The Volunteer Lau reat*; for which she was pleased to send him £50 with an intimation that he might annually expect the same bounty. But this annual allowance was nothing to a man of his strange and singular extravagance. His usual custom was, as soon as he had received his pension, to disappear with it, and secrete himself from his most intimate friends, till every shilling of it was spent; which done he again appeared, pennyless as before; but he would never inform any person where he had been, nor in what manner his money had been dissipated.—From the reports, however, of some who penetrated his haunts, he expended both his time and his cash in the most sordid and despicable sensuality; particularly in eating and drinking, in which he would indulge in the most unsocial manner, sitting whole days and nights by himself, in obscure houses of entertainment, over his bottle and trencher, immersed in filth and sloth, with scarcely decent apparel; generally wrapped up in a horseman's great coat. His wit and talents, however, still raised him new friends as fast as his misbehaviour lost him his old ones. Yet such was his conduct, that occasional relief only furnished the means of occasional excess; and he defeated all the attempts made by his friends to fix him in a decent way. Yet, amidst all his penury and wretchedness, this man had so much pride, and so high an opinion of his own merit, that he was always ready to repress, with scorn and contempt, the least appearance of any slight towards himself, in the behaviour of his acquaintances; among whom he looked upon none as his superior. He would be treated as an equal,

even by persons of the highest rank. He once refused to wait upon a gentleman who was desirous of relieving him when in the lowest distress, only because the message signified the gentleman's desire to see him at nine in the morning. His life was rendered still more unhappy by the death of the queen, in 1738, when his pension was discontinued. His distress now became so notorious that a scheme was at length concerted for procuring him a permanent relief. It was proposed that he should retire into Wales, with an allowance of £50 a year, on which he was to live privately, in a cheap place, for ever quitting his town haunts, and resigning all farther pretensions to fame. This offer he seemed gladly to accept. In 1739 he set out for Swansea, in the Bristol stage-coach, and was furnished with fifteen guineas to bear the expense of his journey. But, on the fourteenth day after his departure, his friends and benefactors, the principal of whom was Mr. Pope, who expected to hear of his arrival in Wales, were surprised with a letter from Savage, informing them that he was yet upon the road, and could not proceed for want of money. There was no other remedy than a remittance; which was sent him, and by the help of which he was enabled to reach Bristol, whence he was to proceed to Swansea by water. At Bristol, however, he found an embargo laid upon the shipping; so that he could not immediately obtain a passage. Here, therefore, being obliged to stay for some time, he so ingratiated himself with the principal inhabitants, that he was often invited to their houses, distinguished at their public entertainments, and treated with a regard that highly gratified his vanity. At length, with great reluctance, he proceeded to Swansea; where he lived about a year, very much dissatisfied with the diminution of his salary; for he had, in his letters, treated his contributors so insolently that most of them withdrew their subscriptions. Here he finished a tragedy, and resolved to return with it to London; which was strenuously opposed by his constant friend Mr. Pope; who proposed that Savage should put this play into the hands of Mr. Thomson and Mr. Mallet, that they might fit it for the stage, that his friends should receive the profits it might bring in, and that the author should receive the produce by way of annuity. This kind and prudent scheme was rejected by Savage with contempt.—He declared he would not submit his works to any one's correction: and that he would no longer be kept in leading-strings. Accordingly he soon returned to Bristol, in his way to London; but at Bristol, meeting with a repetition of the same kind treatment he had before found there, he was tempted to make a second stay in that opulent city for some time. Here he was again not only caressed and treated, but the sum of £30 was raised for him, with which it had been happy if he had immediately departed for London. But he never considered that a frequent repetition of such kindness was not to be expected. In short, he remained here till his company was no longer welcome. Necessity came upon him before he was aware; his money was spent, his clothes were worn out, his appearance was shabby; he

now began to find every man from home at whose house he called; and he found it difficult to obtain a dinner. Thus reduced, it would have been prudent in him to have withdrawn from the place; but the mistress of a coffee house, to whom he owed about £8, arrested him for the debt. He remained for some time at a great expense, in the house of the sheriff's officer, in hope of procuring bail; which expense he was enabled to defray by a present from Mr. Nash at Bath. No bail, however, was to be found; so that poor Savage was at last lodged in Newgate, a prison in Bristol. But it was the fortune of this extraordinary mortal always to find more friends than he deserved. The keeper of the prison took compassion on him, and greatly softened the rigors of his confinement by every kind of indulgence. While he remained here his ingratitude again broke out, in a bitter satire on the city of Bristol; to which he certainly owed great obligations, notwithstanding his arrest. This satire is entitled *London and Bristol delineated*; and in it he abused the inhabitants of the latter, with such a spirit of resentment, that the reader would imagine he had never received any other than the worst of treatment in that city. In about six months after his arrest he was seized with a disorder, which at first was not suspected to be dangerous; but, growing daily more languid and dejected, at last a fever seized him; and he died on the 1st of August 1743, in the forty-sixth year of his age. The works of this original writer, after having long lain dispersed in magazines and fugitive publications, were collected and published in an elegant edition, in 2 vols. 8vo.; to which are prefixed, the admirable *Memoirs of Savage*, by Dr. Samuel Johnson.

SAVAGE ISLAND, an island in the south Pacific Ocean, about thirty-three miles in circumference, discovered by captain Cook, in the year 1774. The name was given on account of the rude behaviour of the inhabitants. Captain Cook says the island is of a round form, and good height; and has deep waters close to its shores. All the sea coast, and as far inland as he could see, was covered with trees, shrubs, &c., among which were some cocoa-nut trees. The inhabitants seemed to be stout and well made. They fish with lights by night, called *tomais*, made from the bark of the cocoa-nut tree. They form a decoy for fish. The island is in long. 169° 37' W., and lat. 19° 1' S.

SAVAGISM, a word of modern adoption, designed to express that ignorant and barbarous state of mankind, which most ancient philosophers, and some modern authors of eminence, suppose to have been the original state of all mankind. A numerous sect of ancient philosophers maintained that man literally sprung at first from the earth; that he was without ideas and without speech; and that many ages elapsed before the race acquired the use of language, or attained to greater knowledge than the beasts. Other sects again, with the vulgar, and almost all the poets, maintained that the first mortals were wiser and happier, and more powerful, than any of their offspring; that mankind, instead of being originally savages, and rising to

the state of civilisation by their own gradual and progressive exertions, were created in a high degree of perfection; that, however, they degenerated from that state, and that all nature degenerated with them. Hence the various ages of the world have almost every where been compared to gold, silver, brass, and iron, the golden having always been supposed to be the first age. See AGE.

Since the revival of letters in Europe, and especially during the last century, the same question has been agitated both in France and the England. Such of the ancients as held that man was originally a savage were countenanced by the atheistic cosmogony of the Phœnicians, and by the early history of their own nations; the moderns build their system upon what they suppose to be the constitution of the human mind, and upon the late improvements in arts and sciences. As the question must finally be decided by historical evidence, before we make our appeal to facts, we may remark, upon the supposition that all mankind were originally savages, destitute of the use of speech, and, in the strictest sense of the words, *mutum et turpe pecus*, the great difficulty is to conceive how they could emerge from that state, and become at last enlightened and civilised: but the modern advocates for the universality of the savage state remove this difficulty by a number of instincts or internal senses, with which they suppose the human mind endowed, and by which the savage is, without reflection, not only enabled to distinguish between right and wrong, and prompted to do every thing necessary to the preservation of his existence and the continuance of the species, but also led to the discovery of what will contribute, in the first instance, to the ease and accommodations of life. These instincts, they think, brought mankind together when the reasoning faculty, which had hitherto been dormant, being now roused by the collisions of society, made its observations upon the consequences of their different actions, taught them to avoid such as experience showed to be pernicious, and to improve upon those which they found beneficial; and thus was the progress of civilisation begun. But this theory seems opposed by unanswerable objections.

In the preliminary discourse to *Sketches of the History of Man*, lord Kames would infer, from some facts which he states, that many pairs of the human race were at first created, of very different forms and natures, but all depending entirely on their own natural talents. But to this statement he rightly observes that the Mosaic account of the creation opposes objections. 'Whence then,' says his lordship, 'the degeneracy of all men into the savage state? To account for that dismal catastrophe, mankind must have suffered some dreadful convulsion.' Now this is taking for granted the very thing to be proved. We deny that at any period since the creation, all men were sunk into the state of savages; and, that they were, no proof has yet been brought, nor do we know of any that can be brought, unless our fashionable philosophers choose to prop their theories by the buttress of Sanehoniath's Phœnician cosmogony. His

lordship, however, says, or rather supposes, that the confusion at Babel, &c., was this dreadful convulsion: For, says he, by confounding the language of men, and scattering them abroad upon the face of all the earth, they were rendered savages. Here again we have a positive assertion without the least shadow of proof; for it does not at all appear that the confusion of languages, and the scattering abroad of the people, was a circumstance such as could induce universal savagism. There is no reason to think that all the men then alive were engaged in building the tower of Babel; nor does it appear from the Hebrew original that the language of those who were engaged in it was so much changed as the reader is apt to infer from our English version. That the builders were scattered is indeed certain; and if any of them were driven, in very small tribes, to a great distance from their brethren, they would in process of time inevitably become savages. But it is evident, from the Scripture account of the peopling of the earth, that the descendants of Shem and Japheth were not scattered over the face of all the earth, and that therefore they could not be rendered savage by the catastrophe at Babel. In the chapter which relates that wonderful event the generations of Shem are given in orders down to Abraham; but there is no indication that they had suffered with the builders of the tower, or that any of them had degenerated into the state of savages. On the contrary, they appear to have possessed a considerable degree of knowledge; and if any credit be due to the tradition which represents the father of Abraham as a statuary and himself as skilled in the science of astronomy, they must have been far advanced in the arts of refinement. Even such of the posterity of Ham as either emigrated or were driven from the plain of Shinar in large bodies, so far from sinking into savagism, retained all the acquirements of their antediluvian ancestors, and became afterwards the instructors of the Greeks and Romans. This is evident from the history of the Egyptians and other eastern nations, who in the days of Abraham were powerful and highly civilised. And that for many ages they did not degenerate into barbarism is apparent from its having been thought to exalt the character of Moses, that he was learned in all the wisdom of the Egyptians, and from the wisdom of Solomon having been said to excel all the wisdom of the east country and of Egypt. Thus decided are the Scriptures of the Old Testament against the universal prevalence of savagism in that period of the world; nor are the most authentic Pagan writers of antiquity of a different opinion. Mochus the Phœnician (*Strabo*, lib. 17), Democritus, and Epicurus, appear to be the first champions of the savage state, and they are followed by a numerous body of poets and rhapsodists, among the Greeks and Romans, who were unquestionably devoted to fable and fiction. The account which they have given of the origin of man, the reader will find in other parts of this work. But we hardly think that he will employ it in support of the fashionable doctrine of original savagism. Against the wild reveries of this school might be quoted all the leaders of the other sect,

Greeks and barbarians; the philosophers of both academies, the sages of the Italian and Alexandrian schools; the magi of Persia; the brahmins of India, and the druids of Gaul, &c. The testimonies of the early historians among all the ancient nations, indeed, who are avowedly fabulists, is very little to be depended on, and has been called in question by the most judicious writers of Pagan antiquity. (See Plutarch *Vita Thes. sub. init.*; Thucyd. l. i. cap. 1; Strabo, l. xi. p. 507; Livy *Pref.*; and Varro *ap. August. de Civ. Dei.*) The more populous and extensive kingdoms and societies were civilised at a period prior to the records of profane history; the presumption, therefore, without taking revelation into the account, certainly is, that they were civilised from the beginning. This is rendered further probable from other circumstances. To account for their system, the advocates of savagism are obliged to have recourse to numerous suppositions. They imagine that since the creation dreadful convulsions have happened, which have spread ruin and devastation over the earth, which have destroyed learning and the arts, and brought on savagism by one sudden blow. But this is reasoning at random, and without a vestige of probability; for the only convulsion that can be mentioned is that of Babel, which we have already shown to be inadequate.

It may be farther argued, that it does not appear that any people that were once civilised, and in process of time had degenerated into the savage or barbarous state, have ever recovered their pristine condition with foreign aid. Whence we conclude that man, once a savage, would never have raised himself from that hopeless state. This appears evident from the history of the world; for that it requires strong incitements to keep man in a high state of knowledge and civilisation is evident from what we know of the numerous nations which were famed in antiquity, but which are now degenerated in an astonishing degree. That man cannot, or, which is the same thing, has not risen from barbarism to civilisation and science by his own efforts and natural talents, appears further from the following facts:—The rudiments of all the learning, religion, laws, arts, and sciences, and other improvements that have enlightened Europe, a great part of Asia, and the northern coast of Africa, were so many rays diverging from two points, on the banks of the Euphrates and the Nile. In proportion as nations receded from these two sources of humanity and civilisation, in the same proportion were they more and more immersed in ignorance and barbarism. The Greeks had made no progress towards civilisation, when the Titans first, and afterwards colonies from Egypt and Phœnicia, taught them the very elements of science and urbanity. The aborigines of Italy were in the same state prior to the arrival of the Pelasgi, and the colonies from Arcadia and other parts of Greece. Spain was indebted for the first seeds of improvement to the commercial spirit of the Phœnicians. The Gauls, the Britons, and the Germans, derived from the Romans all that in the early periods of their history they knew of science, or the arts of civil life, and so on of other nations in antiquity. The same

appears to be the case in modern times. The countries which have been discovered by the restless and inquisitive spirit of Europeans have been generally found in the lowest stage of savagism: from which, if they have emerged at all, it has been exactly in proportion to their connexion with the inhabitants of Europe. Even Western Europe itself, when sunk in ignorance, during the reign of monkery, did not recover by the efforts of its own inhabitants. Had not the Greeks, who in the fifteenth century took refuge in Italy from the cruelty of the Turks, brought with them their ancient books, and taught the Italians to read them, we, who are disputing about the origin of the savage state, and the innate powers of the human mind, had at this day been gross and ignorant savages ourselves, incapable of reasoning with accuracy upon any subject. That we have now advanced far before our masters is readily admitted; for the human mind, when put on the right track, and spurred on by emulation and other incitements, is capable of making great improvements; but between improving science, and emerging from savagism, every one perceives there is an immense difference. Lork Kames observes that the people who inhabit a grateful soil, where the necessaries of life are easily procured, are the first who invent useful and ingenious arts, and the first who figure in the exercises of the mind. But the Egyptians and Chaldeans, who are thought to support this remark, appear from what we have seen to have derived their knowledge from their antediluvian progenitors, and not from any advantages of situation or strength of genius. Besides, the inhabitants of a great part of Africa, of North and South America, and of many of the islands lately discovered, live in regions equally fertile, and equally productive of the necessaries of life, with the regions of Chaldea and Egypt; yet these people have been savages from time immemorial, and continue still in the same state. The Athenians, on the other hand, inhabited the most barren and ungrateful region of Greece, while their acquirements in the arts and sciences have rarely been excelled. The Norwegian colony which settled in Iceland about the beginning of the eighth century inhabited a most bleak and barren soil, and yet the fine arts were eagerly cultivated in that dreary region, when the rest of Europe was sunk in ignorance and barbarism. Again, there are many parts of Africa, and of North and South America, where the soil is neither so luxuriant as to beget indolence, nor so barren and ungrateful as to depress the spirits by labor and poverty; where, notwithstanding, the inhabitants still continue in an uncultured state. From all which, and from numerous other instances which our limits permit us not to bring forward, we infer that some external influence is necessary to impel savages towards civilisation; and that in the history of the world, or the nature of the thing, we find no instance of any people emerging from barbarism by the progressive efforts of their own genius. On the contrary, as we find in societies highly cultivated and luxurious a strong tendency to degenerate, so in savages we not only find no mark of tendency to improvement, but rather a

rooted aversion to it. Among them, indeed, the social appetite never reaches beyond their own horde. It is, therefore, too weak and too confined to dispose them to unite in large communities; and of course, had all mankind been once in the savage state, they never could have arrived at any considerable degree of civilisation. Instead of trusting to any such natural progress as is contended for, the providence of Heaven, in pity to the human race, appears, at different times, and in different countries, to have raised up some persons endowed with superior talents, who, having themselves acquired some knowledge in nations already civilised by useful inventions, legislation, religious institutions, and moral arrangements, sowed the first seeds of civilisation among the hordes of wandering disunited barbarians. Thus we find the Chinese look up to their Fohee, the Indians to the Brahma, the Persians to Zoroaster, the Chaldeans to Oannes, the Egyptians to Thoth, the Phœnicians to Melicerta, the Scandinavians to Odin, the Italians to Janus, Saturn, and Picus, and the Peruvians to Manco. In later times, and almost within our own view, we find the barbarous nations of Russia reduced to the same order and civilisation by the genius and exertions of Peter the Great: The endeavours of succeeding monarchs have powerfully contributed to the improvement of this mighty empire. In many parts of it, however, we still find the inhabitants in a state very little superior to savagism; and, through the most of it, the lower, and perhaps the middling orders, appear to retain an almost invincible aversion to further improvements. A fact which, when added to numerous others of a similar nature which occur in the history of the world, seems to prove indisputably that there is no such natural propensity to improvement in the human mind as we are taught by some authors to believe. The origin of savagism, if we allow mankind to have been at first civilised, is easily accounted for by natural means: the origin of civilisation, if at any period the whole race were savages, cannot, we think, be accounted for otherwise than by a miracle, or a series of miracles. To many persons in the present day the doctrines we have now attempted to establish will appear very humiliating: it is a popular kind of philosophy to attribute to the human mind very pre-eminent powers; which so flatter our pride as in a great measure to pervert our reason, and blind our judgment. The history of the world, and of the dispensations of God to man, are certainly at variance with this doctrine respecting the origin of civilisation: for, if the human mind be possessed of that innate vigor which that doctrine attributes to it, it will be extremely difficult to account for those numerous facts which seem with irresistible evidence to proclaim the contrary; for that unceasing care with which the deity appears to have watched over us; and for those various and important revelations He has vouchsafed to us. Let us rejoice and be thankful that we are men and Christians; but let not a vain philosophy tempt us to imagine that we are angels or gods.

SAVANNA, *n. s.* Span. *sabanna*. An open meadow; pasture ground.

He that rides post through a country may tell how, in general, the parts lie; here a morass, and there a river; woodland in one part, and *savannas* in another.

Locke.

Plains immensæ,
And vast *savannas*, where the wandering eye,
Unfixed, is in a verdant ocean lost.

Thomson.

SAVANNAH, a city and port of entry of the United States, in Chatham county, Georgia, on the south-west bank of the Savannah, seventeen miles from its mouth. It is situated on a sandy plain, about forty feet above low tide, and contains a court-house, jail, alms-house, hospital, theatre, public library, academy, exchange, three banks, including a branch of the United States bank, and seven houses of public worship, one for Presbyterians, one for Episcopalians, one for Lutherans, one for Methodists, one for Baptists, one for Roman Catholics, and a Jewish synagogue.

The academy is built of brick and stone, 180 feet by sixty, of three stories. The exchange is a brick edifice of five stories. The new Presbyterian church is a very spacious and elegant edifice of stone. The city, a few years since, was almost wholly built of wood, with very few elegant houses; but a large proportion of the houses recently erected are handsomely built of brick. Savannah has heretofore been accounted very unhealthy during the summer and autumn, but the salubrity of the place is now much improved, by appropriating to a dry culture those lands in its immediate vicinity which were formerly appropriated to rice.

The city is regularly laid out, and contains ten public squares, each consisting of two acres, with a pump in the centre. The squares and public walks are planted with china trees, which contribute much to the ornament, comfort, and salubrity of the place. Savannah is the great emporium of the state, and is a place of much trade. In six months, ending the 31st of March 1818, there were exported from it 61,797 bales of cotton, 13,680 tierces of rice, and 1500 hogsh-heads of tobacco. The shipping owned here, in 1816, amounted to 12,766 tons. Vessels drawing fourteen feet of water come up to the wharfs; larger vessels take in their cargoes at Five Fathom Hole, three miles below the town. On the east side of the city is Fort Wayne; at Five Fathom Hole is Fort Jackson; and on Tybee Island, near the mouth of the river, there is a light-house. 118 miles south-west of Charlestown, and 123 south-east of Augusta.

SAVANNAH, a river of the United States, which is formed by the union of the Tugeloo and Keowee. It separates South Carolina from Georgia, and runs south-east into the Atlantic. It is navigable for large vessels to the town of Savannah, seventeen miles, and for boats of 100 feet keel to Augusta, which, by the course of the river, is 340 miles above Savannah. Just above Augusta there are falls; beyond these the river is navigable for boats to the junction of the Tugeloo and Keowee.

SAVARY (James), an eminent French writer on trade, was born at Done, in Anjou, in 1622. He continued in trade until 1658, and was afterwards admitted of the council for the reforma-

tion of commerce; and the orders which passed in 1670 were drawn up by his instructions and advice. He wrote *Le Parfait Negociant*, 4to.; and *Avis et Conseils sur les plus Importantes Matieres du Commerce*, 4to. He died in 1690; and out of seventeen children, whom he had by one wife, left eleven.

SAVARY (James and Philemon Lewis), two of the sons of the preceding, labored jointly on a *Dictionnaire Universelle du Commerce*, 2 vols. folio. This work was begun by James, who was inspector-general of the manufactures at the custom-house, Paris; who called in the assistance of his brother Philemon-Lewis, a canon of the royal church of St. Maur, and at his death left him to finish it. This work appeared in 1723, and Philemon afterwards added a third supplemental volume to the former.

SAVARY, an eminent French traveller and writer, born at Vitry, in Brittany, about 1748. He studied with applause at Rennes, and, in 1776, travelled into Egypt, where he remained about three years. During this period he was engaged in the study of the Arabian languages, in searching out ancient monuments, and in examining the national manners. He next visited the islands in the Archipelago, where he spent eighteen months. On his return to France, in 1780, he published, 1. A Translation of the Koran with a short Life of Mahomet, 2 vols. 8vo.; 2. The Morality of the Koran, or a collection of the most excellent maxims in the Koran; a work extracted from his translation, which is esteemed both elegant and faithful; 3. Letters on Egypt, in 3 vols. 8vo., in 1785. In these the author makes his observations with accuracy, and renders interesting every thing he relates; but he is censured for painting modern Egypt and its inhabitants in too high colors. These letters, however, were rapidly sold; and, encouraged by this flattering reception, he prepared his Letters upon Greece. But about this time he contracted a malady from too intense application. His digestion became languid; sleep forsook him; a dry and troublesome cough came on; his face appeared bloated, and his legs inflamed. In this situation he returned to Paris, in the beginning of 1788, to attend to the publication of his new work. He had then all the symptoms of a dangerous dropsy. His strength was exhausted, and he died on the 4th of February 1788.

SAUCE, *n. s. & v. a.* } Fr. *sause, saulse*;
SAUCEPAN. } Ital. *salsa*; Lat. *salsus*.
Something eaten with food to improve it or give a relish: to treat with sauce; hence to intermix: a sauce-pan is properly a pan for cooking sauce.

The bitter *sauce* of the sport was that we had our honours for ever lost, partly by our own faults, but principally by his faulty using of our faults.

Sidney.

Then fell she to *sauce* her desires with threatenings.

Id.

All the delights of love, wherein wanton youth walloweth, be but folly mixed with bitterness, and sorrow *sauced* with repentance.

Spenser.

Epicurean cooks

Sharpen with cloyless *sauce* his appetite.

Shakespeare.

Such was the *sauce* of Moab's noble feast,
'Till night far spent invites them to their rest.

Cowley.

He that spends his time in sports is like him whose meat is nothing but *saucies*; they are healthless, chargeable, and useless.

Taylor.

Your master will not allow you a silver *saucepan*.

Swift.

High *saucies* and rich spices are fetched from the Indies.

Baker.

SAUCER, *n. s.* Fr. *sauciere*, or from *sauce*. A small pan or platter in which sauce is set on the table

Infuse a pugil of new violets seven times, and it shall make the vinegar so fresh of the flower, as, if brought in a *saucer*, you shall smell it before it come at you.

Bacon.

Some have mistaken blocks and posts

For spectres, apparitions, ghosts,

With *saucer* eyes and horns.

Hudibras.

The SAUCISSE, or SAUCISSON, in mining, is a long pipe, sometimes made of leather, of about an inch and a half diameter, filled with powder, going from the chamber of the mine to the entrance of the gallery. It is generally placed in a wooden pipe called an *auget*, to prevent its growing damp. It serves to give fire to mines, bomb-chests, &c.

SAUCY, *adj.* } Fr. *salace*; Lat. *salar*.
SAUCE'BOX, *n. s.* } Pert; petulant; rude;
SAU'CILY, *adv.* } impertinent: the adverb
SAU'CINESS, *n. s.* } and noun-substantive corresponding: saucebox is an impertinent busy fellow.

With how sweet *saws* she blamed their *sauces*,
To feel the panting heart, which through her side
Did beat their hands.

Sidney.

You are more *saucy* with lords than the heraldry of your birth and virtue gives you commission.

Shakespeare.

And if thou hast the mettle of a king,
Being wronged as we are by this peevish town,
Turn thou the mouth of thy artillery,
As we will our's against these *saucy* walls.

Id.

Though this knave came somewhat *saucily* into the world before he was sent for, yet was his mother fair.

Id.

By his authority he remains here, which he thinks is a patent for his *sauces*.

Id.

A freed servant, who had much power with Claudius, very *saucily* had almost all the words; and, amongst other things, he asked in scorn one of the examiners, who was likewise a freed servant of Scribonianus, I pray, sir, if Scribonianus had been emperor, what would you have done? He answered, I would have stood behind his chair, and held my peace.

Bacon.

It is *sauces* in a creature, in this case, to reply.

Bramhall.

I lose my patience, when with *saucy* pride
By untuned ears I hear his numbers tried.

Roscommon.

Power's first pedigree from force derives,
And calls to mind the old prerogatives
Of free-born man; and with a *saucy* eye
Searches the heart and soul of majesty.

Denham.

You *sauces*, mind your pruning knife, or I may use it for you.

Dryden's Don Sebastian.

Imputing it to the natural *sauces* of a pedant, they made him eat his words.

L'Estrange.

Homer, to express a man both timorous and *saucy*, makes use of a kind of point, namely, that he had the eyes of a dog, but the heart of a deer.

Addison's Spectator.

The foolish old poet says that the souls of some women are made of sea water: this has encouraged my *saucebox* to be witty upon me.

Id.

A trumpet behaved himself very *saucily*. Addison.
This might make all other servants challenge the
sameliberly, and grow pert upon their masters; and,
when this *sauciness* became universal, what less mis-
chief could be expected than an old Scythian rebel-
lion? Collier on *Pride*.

SAVE, *v. a., v. n., & adv.*

SA'VER, *n. s.*

SA'VING, *adj., adv., & n. s.*

SA'VINGLY, *adv.*

SA'VIOUR, *n. s.*

embrace opportunely; preserve from eternal
death; to be chief: a savor or saviour is one
who preserves; rescues; keeps; the Redeemer
of mankind: saving, frugal; parsimonious; and
as an adverb with exception in favor of: as a
noun-substantive an escape of expense; excep-
tion: savingly agrees with saving as an adjective.

He shall not feel quietness, he shall not *save* of
that which he desired. Job xx. 20.

One shall cry unto him, yet cannot he answer, nor
save him out of his troubles. Isa. xlv. 7.

We are not of them who draw back unto perdition;
but of them that believe to the *saving* of the soul.
Heb. x. 39.

They were manifoldly acknowledged the *savers* of
that country. Sidney.

But being all defeated, *save* a few,
Rather than fly, or be captived herself she slew.
Spenser.

All this world's glory seemeth vain.
And all their shows but shadows, *saving* me. Id.

Whatever we read in Scripture concerning the
endless love and *saving* mercy which God showeth
towards his church, the only proper subject thereof
is this church. Hooker.

There are some that will be *saved*, and some that
will be damned. Shakspeare.

All the conspirators, *save* only he,
Died that they did in envy of great Cæsar. Id.

Brass ordnance *saveth* in the quantity of the mate-
rial, and in the charge of mounting and carriage.
Bacon.

He never put down a near servant, *save* only
Stanley, the lord chamberlain. Id. Henry VII.

It is a great *saving* in all such lights, if they can
be made as fair and light as others, and yet last
longer. Bacon.

By nature far from profusion, and yet a greater
sparer than a *saver*; for though he had such means
to accumulate, yet his garrisons and his feastings
soaked his exchequer. Wotton.

His merits *save* them. Milton.

How build, unbuild, contrive
To *save* appearances: how gird the sphere
With centrick and ecentrick. Id.

How have I then with whom to hold converse,
Save with the creatures which I made? Il.

So judgea he man, both judge and *Saviour* sent. Id.

We may be confident whatever God does is in-
tended for our good, and whatever we interpret other-
wise we can get nothing by repining, nor *save* any
thing by resisting. Temple.

The circling streams, once thought but pools of
blood,
From dark oblivion Harvey's name shall *save*.
Dryden.

Will you not speak to *save* a lady's blush? Id.

Laws of arms permit each injured man

To make himself a *saver* where he can. Id.

Contend not with those that are too strong for us,
but still with a *saving* to honesty; for integrity must
be supported against all violence. L'Estrange.

Saving the reverence due to so great a man, I
doubt not but they did all creep out of their holes.

Ray on the *Creation*.

Silvio, finding his application unsuccessful, was
resolved to make a *saving* bargain; and, since he
could not get the widow's estate, to recover what he
had laid out of his own. Addison.

By reducing interest to four per cent. there was a
considerable *saving* to the nation. Id.

However consonant to reason his precepts ap-
peared, nothing could have tempted men to acknow-
ledge him as their God and *Saviour*, but their being
firmly persuaded of the miracles he wrought. Id.

He who feareth God, and worketh righteousness,
and perseveres in the faith and duties of our religion,
shall certainly be *saved*. Rogers.

She loved money; for she was *saving*, and applied
her fortune to pay John's clamorous debts.

Arbutnot's *History of John Bull*.

They meanly pilfer, as they bravely fought,
Now *save* a nation, and now *save* a groat. Pope.

The same persons, who were chief confidants to
Cromwell, foreseeing a restoration, seized the castles
in Ireland, just *saving* the tide, and putting in a stock
of merit sufficient. Swift.

Who dares affirm this is no pious age,
When charity begins to tread the stage?

When actors, who at best are hardly *savers*,

Will give a night of benefit to weavers? Id.

Be *saving* of your candle. Id.

Will no superior genius snatch the quill,

And *save* me on the brink from writing ill? Young.

SAVE, a large river of Austrian Illyria, rising
about six miles to the south of Villach, and flow-
ing through a part of Styria and Croatia. After
leaving the latter, it separates Sclavonia from
Turkey, till it joins the Danube, between Semlin
and Belgrade. Its course is at first winding; and
it frequently overflows its banks. It is, however,
of great importance to the trade of all the coun-
tries through which it passes, and is the medium
by which the corn and tobacco of the Bannat
and neighbouring provinces are interchanged.

SAVENDROOG, a celebrated but unhealthy
fortress of the Mysore, Hindostan. It is situated
on the summit of an immense rock, half a mile
in perpendicular height, and surrounded by a
thick wood. It was considered by the natives
impregnable; but was taken by storm, without
the loss of a man, by the British, in 1791. It
was used by Hyder Aly and Tippoo Sultan as a
state prison. Long. 77° 29' E., lat. 12° 56' N.

SAVERNE, a well built town in Alsace, de-
partment of the Lower Rhine. It is situated on
the Sarre, and has a castle, formerly the residence
of the bishops of Strasburg. Saverne has a great
trade in woollens, leather, hardware, pottery, and
tobacco, almost all manufactured in the town;
and the surrounding country is productive in
wine. The town contains a college, an hospital,
and 6000 inhabitants. Twenty-two miles W.N.W.
of Strasburg.

SAVILLE (Sir George), afterwards marquis of
Halifax, was born about 1630; and, some time
after his return from his travels, was created a
peer, in consideration of his own and his father's
merits. He was a strenuous opposer of the bill
of exclusion; but proposed such limitations of
the duke of York's authority as should disable
him from doing any harm either in church or
state, as the taking out of his hands all power in

ecclesiastical matters, the disposal of the public money, and the power of making peace and war; and lodging these in the two houses of parliament. After that bill was rejected in the house of lords, he pressed them, though without success, to proceed to the limitation of the duke's power; and began by moving that, during the king's life, he might be obliged to live 500 miles out of England. In August 1682 he was created a marquis, and soon after made lord privy-seal. Upon king James's accession he was made president of the council; but, on his refusal to consent to the repeal of the test, he was dismissed from all public employments. In that assembly of the lords which met after king James's withdrawing himself the first time from Whitehall, he was chosen president; and upon the king's return from Feversham he was sent, with the earl of Shrewsbury and lord Delamere, from the prince of Orange, to order his majesty to quit the palace at Whitehall. In the convention-parliament he was chosen speaker of the house of lords, and strenuously supported the motion for the vacancy of the throne, and the conjunctive sovereignty of the prince and princess; upon whose accession he was again made privy-seal. Yet, in 1689, he quitted the court, and became a zealous opposer of the measures of government till his death, in April 1695. He wrote, *The Anatomy of an Equivalent*; a *Letter to a Dissenter*; a *Rough Draught of a new Model at Sea*; and *Maxims of State*; all in one volume 8vo. He also published the character of king Charles II., 8vo.; the *Character of Bishop Burnet*, and *Historical Observations upon the Reigns of Edward I., II., III., and Richard II.*, with *Remarks upon their faithful Counsellors and false Favorites*.

SAVILLE, or SAVILE (Sir Henry), was born at Bradley, near Halifax, in Yorkshire, in 1549. He was entered of Merton College, Oxford in 1561, where he took the degrees in arts, and was chosen fellow. When he proceeded M. A., in 1570, he read for that degree on the *Almagest* of Ptolemy. In 1578 he travelled into France and other countries; and at his return was made tutor in the Greek to queen Elizabeth, who had a great esteem for him. In 1585 he was made warden of Merton College, which he governed thirty-six years with great honor, and improved it by all the means in his power. In 1596 he was chosen provost of Eton College. In 1619 he founded in the university of Oxford two professorships in geometry and in astronomy; which he endowed with a salary of £160 a-year besides a legacy of £600 to purchase more lands for the same use. He also furnished a library with mathematical books, near the mathematical school, for the use of his professors; and gave £100 to the mathematical chest of his own appointing: adding afterwards a legacy of £420 a-year to the same chest, to the university, and to his professors jointly. He likewise gave £120 towards the new building of the schools, besides several rare MSS. and printed books to the Bodleian library; and a quantity of Greek types to the printing-press at Oxford. After a life spent in the encouragement of science and literature in general, he died at Eton College the 19th of

February, 1622, in the seventy-third year of his age, and was buried in the chapel. The highest encomiums are bestowed on him by all the learned of his time: by Casaubon, Mercerus, Meibomius, Joseph Scaliger, and bishop Montague; who in his *Diatribæ upon Selden's History of Tythes*, styles him, 'that magazine of learning, whose memory shall be honorable amongst not only the learned, but the righteous for ever.' His publications are, 1. *Four Books of the Histories of Cornelius Tacitus*, and the *Life of Agricola*; with *Notes upon them*, in folio, dedicated to queen Elizabeth in 1581. 2. *A View of certain Military Matters, or Commentaries concerning Roman Warfare*, 1598. 3. *Rerum Anglicarum Scriptores Post Bedam, &c.* 1596. 4. *The Works of St. Chrysostom*, in Greek, in 8 vols. folio, 1613. Several editions of this work were afterwards published in Paris. 5. In 1618 he published a Latin Work, written by Thomas Bradwardin, archbishop of Canterbury, against Pelagius, entitled *De Causâ Dei contra Pelagium, et de Virtute Causarum*; to which he prefixed the life of Bradwardin. 6. In 1621 he published a collection of his own *Mathematical Lectures on Euclid's Elements*, in 4to.—7. *Oratio Coram Elizabetha Regina, Oxoniæ Habita*, anno 1592. Oxford 1658, 4to. 8. He translated into Latin King James's *Apology for the Oath of Allegiance*. He also left several MSS. behind him, written by order of king James; all which are in the Bodleian library. Four of his letters to Camden are published by Smith, among *Camden's Letters*, 1691, 4to.

SAVIN, in botany. See JUNIPERUS.

SAVIOUR, ORDER OF ST., a religious order of the Romish church, founded by St. Bridget, about the year 1445, and so called from its being pretended that our Saviour himself declared its constitution and rules to the foundress. It is principally founded for religious women, who pay a particular honor to the holy virgin; but there are some monks of the order, to administer the sacrament and spiritual assistance to the nuns.

SAUL, Heb. שׂאול, i.e. asked, the son of Kish, a rich man of Gibeath, of the tribe of Benjamin, the first king of Israel. Saul's fruitless journey seeking his father's asses; his meeting with the prophet Samuel; the interesting particulars foretold to him, with his anointing as king, about A. A. C. 1095, or A. M. 2909; his prophesying with the young prophets; his appointment by the lot; his modesty in hiding himself; his first victory over the Amorites; his rash sacrifice in the absence of Samuel; his equally rash curse; his victories over the Philistines and Amalekites; his sparing of king Agag, with the judgment pronounced against him for it; his jealousy and persecution of David; his barbarous massacre of the priests and people of Nob; his repeated confessions of his injustice to David; his consultation of the witch of Endor; with his defeat and suicide, are recorded in 1 Sam. ix.—xxxi. He reigned forty years, and died A. M. 2949.

SAUMUR, a central town of France, in Anjou, situated on the southern bank of the Loire, over which it has two bridges, the one

from the northern bank to an island in the middle, and the other from the island to the southern bank. The former was much injured in the revolutionary war; but the latter, consisting of twelve elliptical arches, each of sixty feet span, is still one of the finest structures of the kind in France. The principal street, built on a line with this bridge, contains the theatre, and various other elegant buildings. The castle, situated on an eminence which commands the town, is a very ancient building, and is used as a dépôt for military stores. The cavalry barracks are spacious and handsome, and the town contains several squares and Roman and Celtic antiquities. Its chief attraction, however, is the beauty of the surrounding scenery. Saumur was formerly fortified, and has long been noted for Protestantism. In the time of Henry IV. the governor of this part of France, Duplessis Mornay, founded here a Protestant academy, much resorted to during the seventeenth century. It has manufactures of linen, woollens, leather, and some trade in wine and brandy. Saumur was the birthplace of madame Dacier. The road to Tours is along the banks of the Loire, on the great mound called the Leve. Twenty-seven miles south-east of Angers, and thirty-eight W. S. W. of Tours.

SAUNDERS, in botany and dyeing. See *PTEROCARPUS SANTALUM*.

SAUNDERSON (Dr. Robert), an eminent preacher, born at Rotherham in Yorkshire, in 1587. He attended the grammar-school at Rotherham, where he made such rapid proficiency that at thirteen he was sent to Lincoln College, Oxford. In 1608 he was appointed logic reader. He took orders in 1611, and was promoted successively to several benefices. Archbishop Laud recommended him to king Charles I. as a profound casuist, who appointed him one of his chaplains in 1631. The king regularly attended his sermons, and said that 'he carried his ears to hear others, but his conscience to hear Saunderson.' In 1642 Charles created him regius professor of divinity at Oxford and canon of Christ Church; but in 1648 he was ejected by the visitors from the parliament. When the parliament proposed the abolition of the episcopal form of church-government, Charles desired him to take the subject under his consideration. He accordingly wrote a treatise entitled *Episcopacy as Established by law in England not Prejudicial to Regal Power*. At the request of the celebrated Boyle, who sent him a present of £50, Saunderson published his book *De Conscientia*. On the restoration of Charles II. he recovered his professorship and canonry, and soon after was made bishop of Lincoln. During the two years and a half in which he possessed this new office, he spent a considerable sum in augmenting poor vicarages, in repairing the palace at Bugden, &c. He died January 29th, 1663, in his seventy-sixth year. 1. In 1615 he published *Logicæ Artis Compendium*, which was the system of lectures he had read in the University. 2. Sermons, amounting to thirty-six, printed in 1681, folio, with the author's life by Walton. 3. *Nine Cases of Conscience Resolved*; 1678, 8vo. 4. *De Juramenti Obligatione*. This book was translated into English by Charles I. while a

prisoner in the Isle of Wight, and printed in London in 1665, 8vo. 5. *De Obligatione Conscientiæ*. 6. Censure of Mr. Antony Ascham, and of his book of the Confusions and Revolutions of Government. 7. *Pax Ecclesiæ*, concerning Predestination, or the Five Points. 8. *Two Discourses in Defence of Archbishop Usher's Writings*.

SAUNDERSON (Dr. Nicolas), born at Thurlstone in Yorkshire in 1682, lost his sight by the small-pox before he was a year old. But nevertheless he was initiated into the Greek and Roman authors at a free school at Penniston. After spending some years studying the languages, his father, who was in the excise, began to teach him arithmetic. He soon surpassed his father; and made long and difficult calculations without any sensible marks to assist his memory. At eighteen he was taught the principles of Algebra and geometry by Richard West, esq., of Undoorbank, who, though a gentleman of fortune, yet, being strongly attached to mathematical learning, undertook his education. Saunderson was also assisted in his mathematical studies by Dr. Nettleton. These two gentlemen read books to him and explained them. Some of his friends, who had remarked his perspicuous manner of communicating his ideas, proposed that he should attend the university of Cambridge as a teacher of mathematics. This proposal was immediately put in execution; and he was conducted to Cambridge, in his twenty-fifth year, by Mr. Joshua Dunn, a fellow-commoner of Christ's College. The subject of his lectures was the *Principia Mathematica*, the *Optics*, and *Arithmetica Universalis* of Sir Isaac Newton, and he was attended by a very numerous audience. When Whiston was removed from his professorship, Saunderson was universally allowed to be the man best qualified for the succession. The heads of the university applied to their chancellor, the duke of Somerset, who procured the royal mandate to confer upon him the degree of A. M. He was then elected Lucasian professor of mathematics in November 1711. He now devoted his whole time to his lectures. When George II., in 1728, visited the university of Cambridge, he expressed a desire to see professor Saunderson. He waited upon his majesty in the senate house, and was there, by the king's command, created LL.D. He was admitted F. R. S. in 1736. He was naturally of a vigorous constitution; but his sedentary life at length rendered him scorbutic. He died on the 19th of April, 1739, aged fifty-seven. He wrote a system of algebra, which was published in 2 vols. 4to. at London, after his death in 1740, at the expense of the University. Dr. Saunderson invented for his own use a Palpable Arithmetic; that is, a method of performing operations in arithmetic solely by the sense of touch. In the cabinet of medals, at Cambridge, he could single out the Roman medals with the utmost correctness; he could also perceive the slightest variation in the atmosphere. When he walked, he knew when he passed by a tree, a wall, or a house. He made these distinctions from the different way his face was affected by the motion of the air. In his youth he had been a performer on the flute; and

made such proficiency, that, if he had cultivated his talents in this way, he would probably have been as eminent in music as he was in mathematics. He recognised not only his friends, but even those with whom he was slightly acquainted, by the tone of their voice.

SAUNTER, *v. n.* Fr. *aller à la sainte terre*. from idle people who roved about the country, and asked charity under pretence of going to the holy land; or sans terre, having no settled home. To wander about idly; loiter; longer.

Tell me, why *sauntering* thus from place to place I meet thee, *Nævolus*, with clouded face? *Dryden*.

The cormorant is still *sauntering* by the sea-side, to see if he can find any of his brass cast up.

L'Estrange.

Though putting the mind upon an unusual stress that may discourage, ought to be avoided; yet this must not run it into a lazy *sauntering* about ordinary things.

Locke.

So the young squire, when first he comes From country school to Will's or Tom's, Without one notion of his own, He *saunters* wildly up and down. Here *sauntering* apprentices o'er Otway weep. *Gay*.

Prior.

The brainless stripling

Spells uncouth Latin, and pretends to Greek; A *sauntering* tribe! such born to wide estates, With yea and no in senates hold debates. *Titchel*.

Led by my hand, he *sauntered* Europe round, And gathered every vice in every ground. *Dunciad*.

SAVONA, at one time a place of great trade in the north-west of Italy, was, in 1648, half destroyed by an explosion of 1000 barrels of gunpowder, which had been deposited in the citadel. Since then it has suffered both from pestilence and war. The principal articles of trade are silk, wool, and fruit; and heavy iron ware, such as ships' anchors. Savona was the birth-place of popes Sixtus IV. and Julius II. Columbus was for some time a resident here. In 1745 sixteen French and Spanish vessels, laden with military stores, and lying in the harbour, were sunk by the bombs of a British squadron. In 1746 the king of Sardinia took the town; and in 1810 and 1811 pope Pius VII. resided here some time during his dispute with Buonaparte. Inhabitants 10,000. Twenty miles W.S.W. of Genoa, and sixty north-east of Nice.

SAVONAROLA (Jerome), a celebrated Italian monk, born at Ferrara in 1452, and descended from a noble family. At the age of twenty-two he assumed the habit of a Dominican friar, without the knowledge of his parents, and distinguished himself in that order by his piety and ability as a preacher at Florence. He placed himself at the head of the faction which opposed the family of the Medici. He explained the Apocalypse, and pointed out a prophecy which foretold the destruction of his opponents. He predicted a renovation of the church, and declaimed with much severity against the clergy and the court of Rome. Alexander VI. excommunicated him, and prohibited him from preaching. He derided the anathemas of the pope; yet he forbore preaching for some time, and then resumed his employment with more applause than ever. The pope and the Medici family then thought of attacking him with his own weapons. Savonarola having posted up a thesis as a subject of disputation, a Franciscan, by the

instigation, offered to prove it heretical. The Franciscan was seconded by his brother friars, and Savonarola by his brethren. To convince their antagonists of the superior sanctity of Savonarola, one of the Dominicans offered to walk through a fire: and, to prove his wickedness, a Franciscan agreed to the same experiment. The multitude, eager to witness so extraordinary a spectacle, urged both parties to come to a decision; and the magistrates were constrained to give their consent. Accordingly, Saturday the 7th of April, 1498, was fixed for the trial. On that day the champions appeared; but when they saw one another in cold blood, and beheld the wood in flames, they were anxious to escape the imminent danger into which they had rashly thrown themselves. The Dominican pretended he could not enter the flames without the host in his hand. This the magistrates refused to allow; and the Dominican's fortitude was not put to the test. The Franciscans incited the multitude against their opponents, who accordingly assaulted their monastery, broke open the gates, and entered by force. Upon this, the magistrates brought Savonarola to trial as an impostor. He was put to the torture, and examined; and in the answers which he gave fully evinced that he was a fanatic. He boasted of having frequent conversations with God; and his brother friars were credulous enough to believe him. John Francis Picus, earl of Mirandula, who wrote his life, assures us that the devils which infested the convent of the Dominicans trembled at the sight of friar Jerome. At length pope Alexander VI. sent the chief of the Dominicans, with bishop Romolino, to degrade him from holy orders, and to deliver him up to the secular judges with his two fanatical associates. They were condemned to be hanged and burned on the 23d of May, 1498. Savonarola submitted to the execution of the sentence with great firmness and devotion, and without uttering a word respecting his innocence or his guilt. He was forty-six years of age. Immediately after his death, his Confession was published in his name. It contained many extravagancies, but nothing to deserve so horrid a punishment. His adherents did not fail to attribute to him the power of working miracles; and so strong a veneration had they for their chief that they preserved with pious care any parts of his body which they could snatch from the flames. The earl of Mirandula, the author of his life, has described him as an eminent saint. He gravely informs us that his heart was found in a river; and that he had a piece of it in his possession, which had been very useful in curing diseases, and ejecting demons. Savonarola has also been defended by F. Quetif, Bzovius, Baron, and other religious Dominicans. He wrote a prodigious number of books. He has left, 1. Sermons in Italian: 2. A treatise entitled Triumphus Crucis; 3. Eruditorum Confessorum; and several others. His works have been published at Leyden in 6 vols. 12mo.

SAVOR, *n. s., v. n. & v. a.* Fr. *savoir*.

SAVORILY, *adv.*

SAVORINESS, *n. s.*

SAVORY, *adj.*

} A scent; odor;
} taste: to have
} a particular
taste; betoken: to like; relish: the adverb,

noun-substantive, and adjective corresponding.

Savoury meat, such as my father loveth. *Genesis*.
 Thou savourest not the things that be of God.

Matthew.

What *savour* is better, if physick be true,
 For places infected, than wormwood and rue?

Tusser.

This ripping of ancestors is very pleasing, and *savour*
ureth of good conceit and some reading.

Spenser on Ireland.

Wisdom and goodness to the vile seem vile;
 Filths *savour* but themselves.

Shakspeare.

The duke's answers to his appeachments are very
 diligently and civilly couched; and, though his heart
 was big, yet they all *savour* of an humble spirit.

Wotton.

Benzo calls its smell a tartareous and hollow *savour*.

Abbot.

If 'twere a secret that concerned my life,
 This boldness might become thee;
 But such unnecessary rudeness *savours*

Of some design.

Denham's Sophy.

That *savours* only of rancour and pride.

Milton.

The pleasant *savoury* smell

So quickened appetite, that I

Could not but taste!

Milton's Paradise Lost.

That Jews stink naturally, that is, that there is
 in their race an evil *savour*, is a received opinion we
 know not how to admit.

This mufti is some English renegade, he talks so
savourily of toaping.

Dryden's Don Sebastian.

'The collation he fell to very *savourily*.

L'Estrange.

A director influence from the sun gives fruit a
 better *savour* and a greater worth.

South.

I have rejected every thing that *savours* of party.

Addison.

Truffles, which have an excellent oil, and a volatile
 salt of a grateful *savour*, are heating.

Arbuthnot on Diet.

SAVOY, a duchy of the north-west part of
 the continental states of Sardinia, extending from
 lat. 45° 8' to 46° 28' N. It is bounded on the
 west by France, on the east by Piedmont. Its
 form is oblong, its length from north to south
 being ninety-four miles, its general breadth be-
 tween sixty and seventy. Its superficial extent
 is about 3800 square miles; its population about
 450,000.

The scenery of Savoy, less remarkable for
 beauty than for grandeur, produces in the mind
 of the spectator feelings of awe, and even terror.
 From the bleak tops of the mountains the view
 is infinitely diversified: the bottom of the valley
 is strewn with cottages, fields, and vineyards;
 verdant pastures extend along the base, and
 through a considerable part of the ascent: here
 succeed forests, often of great length; while the
 summit is crowned with snow and ice. Savoy is
 the region of Mount Blanc, Mount St. Bernard,
 Mount Cenis, Mount Iseran, Mount Valaisan,
 and Mount Toumet, all connected, forming the
 stupendous barrier between Savoy and Piedmont.
 The roads are often impassable for carriages,
 and burdens are generally carried on the backs
 of horses or mules. Wheat, barley, oats, rye,
 and hemp, are produced in the valleys: and the
 pasturage enables the agriculturists to send num-
 bers of fine cattle into Piedmont and the Mila-
 nese. The exports are chiefly raw produce, such
 as cheese, butter, hemp, tanned skins, and wool.
 The transit trade between France and Italy is
 carried on chiefly by the new road across Mount

Cenis: the manufactures are confined to a few
 coarse linens, tanning, hardware, pottery, and a
 little paper.

The Savoyards have a brown complexion, from
 their frequent exposure to the air, and live chiefly
 in the country; for except Chambery, their capi-
 tal, there is no town of 5000 inhabitants. From
 the simplicity of their manners, and their fru-
 gality and sobriety, they have, by some writers,
 been compared to the Germans, as described by
 Tacitus. An uneducated, they are at the same
 time an uncorrupted people. The language in
 common use is a mixture of French and Italian.
 The Savoyards quit their native mountains, in
 the same way as the Welsh or the Scottish High-
 landers, and are remarked for pursuing a vari-
 ety of petty callings. 'The Savoyards,' says
 Mr. Galette, a late observer, 'are good-natured,
 gentle, plain in their manners, simple in their
 affection, faithful, and honest. Improvidence
 is a striking feature in their national character,
 and is as strong in the nobleman as the peasant.
 They are always in debt; and I really should
 not think it possible to name three persons among
 a hundred, taken at random, whose property
 would be free from incumbrance. They are un-
 thinkingly liberal and generous; yet they cannot
 bring themselves to pay what they owe! If you
 happen to have a claim for £5 on a Savoyard,
 he will, very probably, spend £100 in giving
 you and your whole family a hearty hospitable
 reception, for months, but the poor £5 will not
 be forthcoming after all. The laws, with respect
 to debtors, are the worst in Europe; they are
 framed in such a manner as effectually to pre-
 vent strangers from lending pecuniary assistance
 to the natives, even on the best landed security.'
 On the whole, this country is very far behind
 the rest of Europe, and seems to belong to ano-
 ther century, or to another quarter of the globe.

Savoy (derived from the Latin Sabaudia) was
 the country of a well known tribe of Celtic ori-
 gin, the Allobroges, who were subjugated in the
 reign of Augustus. Their country formed a part
 of the great province of Gallia Narbonensis,
 and remained in possession of the Romans during
 several centuries; a length of possession which
 accounts for the numerous remains of Roman
 antiquities found in different parts. After various
 changes, it was erected, in the beginning of the
 eleventh century, into a county. In the fif-
 teenth century it became a dukedom, and had a
 large accession of power in the acquisition of
 Piedmont. The ducal family, as we have seen
 in the article SARDINIA, acquired the royal title
 in 1719, and with it nearly its present domi-
 nions.

SAVOY, in botany. See BRASSICA.

SAURIN (James), a celebrated preacher, born
 at Nismes in 1677, and the son of a Protestant
 lawyer of eminence. He applied to his studies
 with great success; but at length he relinquished
 them for the profession of arms. In 1694 he
 made a campaign as a cadet in lord Galloway's
 company, and soon afterwards obtained a pair
 of colors in the regiment of colonel Renault,
 which served in Piedmont. But, the duke of Sa-
 voy having made peace with France, he returned
 to Geneva, and resumed the study of philosophy

and theology, under Turretin and other professors. In 1700 he visited Holland, then came to England, where he remained for several years, and married. In 1705 he returned to the Hague, where he fixed his residence, and preached with the most unbounded applause. His sermons, especially those published during his life, are distinguished for justness of thought, and an elegant unaffected style. Saurin died on the 30th of December, 1730, aged fifty-three. He wrote 1. Sermons, in 12 vols. 8vo. and 12mo. 2. Discourses Historical, Critical, and Moral, on the most memorable Events of the Old and New Testament. This is his greatest and most valuable work. It was printed first in 2 vols. folio. Beausobre and Roques undertook a continuation of it, and increased it to 4 vols. 3. The State of Christianity in France, 1725, 8vo. 4. An Abridgment of Christian Theology and Morality, in the form of a Catechism, 1722, 8vo. He afterwards published an abridgment of this work. 5. His Dissertation on the Expediency of sometimes disguising the Truth raised a multitude of enemies against him. In this discourse his plan was to state the arguments of those who affirm that, in certain cases, it is lawful to disguise truth, and the answers of those who maintained the contrary. He does not determine the question, but seems, however, to incline to the first opinion. He was immediately attacked by several adversaries, and a long controversy ensued; but his doctrines and opinions were at length publicly approved of by the synods of Camper and of the Hague.

SAURIN (Joseph), a geometrician of the Academy of Sciences at Paris, born at Courtousson, in the principality of Orange, in 1659. His father, who was a minister at Grenoble, was his first preceptor. He made rapid progress in his studies, and was admitted minister of Eure, in Dauphiny, when very young; but, having made use of some violent expressions in one of his sermons, he was obliged to quit France in 1683. He retired to Geneva, and thence to Berne, where he obtained a considerable living; but soon after repaired to Holland. He returned afterwards to France, and surrendered himself to Bossuet bishop of Meaux, who obliged him to make a recantation of his errors. He was favorably received by Louis XIV., obtained a pension from him, and was treated by the Academy of Sciences with the most flattering respect. At that time (1717) geometry formed his principal occupation. He adorned the *Journal des Sçavans* with many excellent treatises; and he added to the *Memoirs of the Academy* many interesting papers. These are the only works which he has left. He died in Paris December 29th, 1737, in his seventy-eighth year, of a fever.

SAUROMATE. See SARIMATE.

SAURURUS, in botany, lizard's tail, a genus of the tetragynia order and heptandria class of plants; natural order second, piperitæ: CAL. a catkin, with unisporous scales: COR. none; germina four and four monospermous berries.

SAUSSURE (Horace Benedict), de, was born in Geneva in 1740. His earliest passion was botany: his father was a scientific agriculturalist; and a variegated soil, abundant in plants of dif-

ferent kinds, invites the inhabitant of the banks of the Leman to cultivate that agreeable science. This taste produced an intimacy between De Saussure and the great Haller. De Saussure was induced also to study the vegetable kingdom, by his connexion with Ch. Bonnet, who had married his aunt, and who soon set a just value on the rising talents of his nephew. Bonnet was then employed on the leaves of plants. De Saussure studied these organs of vegetables also, and he published the result of his researches, under the title of *Observations on the Bark of Leaves*. This small work, which appeared soon after 1760, contains new observations on the epidermis of leaves, and in particular on the milary glands by which they are covered. About that period, the place of professor of philosophy falling vacant, it was conferred upon De Saussure, who was then only twenty-one years of age. At that time the two professors of philosophy at Geneva taught physics and logic alternately. De Saussure discharged this double task with equal success. For physics, however, he had the greatest taste, and they conducted him to the study of chemistry and mineralogy. He then began his travels through the mountains; not now to examine their vegetable productions, but to study their geological character. During the first fifteen or twenty years of his professorship he employed himself by turns in discharging the duties of his office, and in traversing the different Alpine ranges near Geneva. He even extended his excursions on one side as far as the banks of the Rhine, and on the other to Piedmont. At the same time he undertook a journey to Auvvergne, to examine there the extinguished volcanoes, and another to Paris, England, and Holland. After that he visited Italy and Sicily. In 1779 he published the first volume of his *Travels through the Alps*; which contains a minute description of the environs of Geneva, and an excursion as far as Chamouni, a village at the bottom of Mont Blanc. Amidst his numerous excursions through the Alps, and at the time of the political troubles of Geneva in 1782, he made his experiments on hygrometry, which he published in 1783, under the title of *Essays on Hygrometry*. In 1786 De Saussure resigned the professor's chair, which he had filled for about twenty-five years, to his pupil and fellow-laborer Pictet. The second volume of his *Travels* was published in 1786. It contains a description of the Alps around Mont Blanc, and also some interesting experiments on electricity, and a description of his electrometer. Some years after the publication of the second volume of his *Travels*, he was admitted as a foreign associate of the Academy of Sciences of Paris. De Saussure was the founder of the Genevese Society of Arts, over which he presided till the last moment of his life; and one of his fondest wishes was the preservation of this useful establishment. By his fatiguing labors in the council of Five Hundred, of which he was a member, and afterwards in the National assembly, his health, however began to be deranged, and in 1794 he was almost deprived of the use of his limbs by a stroke of the palsy. But his mind still preserved its activity; and after that accident he revised the

two last volumes of his Travels, which appeared in 1796. They contain an account of his excursions to the mountains of Piedmont and Switzerland, and in particular of his journey to the summit of Mont Blanc. It was also during his illness that he directed the experiments made on the height of the bed of the Arve, and that he published Observations on the Fusibility of Stones by the Blow-pipe, which were inserted in the Journal de Physique. Having gone for the sake of his health to the baths of Plombiers, he still observed the mountains at a distance, and caused to be brought to him specimens of the strata which he perceived in the steepest rocks. He had announced that he would conclude his travels with some ideas on the primitive state of the earth; but the more he acquired new facts, and the more he meditated on the subject, the more uncertain did his opinions become in regard to those grand revolutions which preceded the present epoch. Though the state of his health began gradually to become worse, the French government appointed him professor of philosophy at the Special School of Paris; but his strength was exhausted. On the 22d of March, 1799, he terminated his brilliant career at the age of fifty-nine. Saussure was not only the author of many Essays and Papers, relating to natural history, but displayed his ingenuity by the construction of a thermometer for measuring the temperature of water at various depths, of a hygrometer, to determine the quantity of aqueous vapor in the air, of a eudiometer to ascertain the purity of the atmosphere, of an electrometer, an anemometer, and other philosophical instruments. He had a most extensive correspondence with men of science.

SAVU, an island in the eastern seas, described by Cook as twenty miles in length; in the middle are hills of a considerable height. It is represented both by captain Cook and by M. Labillardiere as presenting an enchanting prospect from the sea. 'The principal trees of this island,' says our great navigator, 'are the fan-palm, the cocoa-nut, tamarind, limes, oranges, and mangoes; and other vegetable productions are maize, Guinea-corn, rice, millet, calavances, and watermelons. We saw also one sugar-cane, and a few kinds of European garden stuff, particularly celery, marjoram, fennel, and garlic. For the supply of luxury, it has betel, areca, tobacco, cotton, indigo, and a small quantity of cinnamon, which seems to be planted here only for curiosity. There are, however, several kinds of fruit besides those which have been already mentioned. The tame animals are buffaloes, sheep, goats, hogs, fowls, pigeons, horses, asses, dogs, and cats; and of all these there is great plenty. The sheep are of the kind which in England are called Bengal sheep, and differ from ours in many particulars. The fowls are chiefly of the game breed, and large, but the eggs are remarkably small. Of the fish which the sea produces here we know but little: turtles are sometimes found upon the coast, and are by these people, as well as all others, considered as a dainty. The people are rather under than above the middling size; the women especially are remarkably short, and squat built; their complexion is a dark brown,

and their hair universally black and lank. The men are in general well made, vigorous, and active, and have a greater variety in the make and disposition of their features than usual; the countenances of the women are, on the contrary, all alike. The men fasten their hair up to the top of their heads with a comb; the women tie it behind in a club, which is very far from becoming. Both sexes eradicate the hair from under the arm, and the men do the same with their beards, for which purpose the better sort always carry a pair of silver pincers, hanging by a string round their necks; some, however, suffer a very little hair to remain upon their upper lips; but this is always kept short. The dress of both sexes consists of cotton cloth, which being dyed blue in the yarn, and not uniformly of the same shade, is in clouds or waves of that color, and even in our eye had not an inelegant appearance. This cloth they manufacture themselves; and two pieces, each about two yards long and a yard and a half wide, make a dress. Almost all the men had their names traced upon their arms in indelible characters of a black color; and the women had a square ornament of flourished lines impressed in the same manner, just under the bend of the elbow. The houses of Savu are all built upon the same plan, and differ only in size, being large in proportion to the rank and riches of the proprietor. Some are 400 feet long, and some are not more than twenty; they are all raised upon posts or piles about four feet high. When the natives of this island were first formed into a civil society is not certainly known, but at present it is divided into five principalities or nigrees: Laai, Seba, Regecua, Timo, and Massara, each of which is governed by its respective rajah or king. The religion of these people, according to Mr. Lange's information, is an absurd kind of Paganism, every man choosing his own god, and determining for himself how he should be worshipped, so that there are almost as many gods and modes of worship as there are people. In their morals, however, they are said to be irreproachable.' Long. 122° 30' E., lat. 10° 35' S.

SAUVAGES (Francis Boissier), de, an eminent French physician, born in 1706. His abilities procured him the professorships of medicine and botany in the university of Montpellier. His works are very numerous. The principal are, 1. *Theoria Febris*, 1738, 12mo.: 2. *Nosologia Methodica*; 5 vols. 8vo. 1763: 3. *Physiologia Mechanicæ Elementa*; 1755, 12mo.

SAUVAGESIA, in botany, a genus of the monogynia order, and pentandria class of plants: cor. pentapetalous and fringed: cal. pentaphyllous; the nectarium the same, having its leaves placed alternately with the petals: caps. unilocular. Species one; a West Indian plant.

SAW, *n. s.* Sax. *raza*; Belg. *sacghe*; Goth. *saga*. A saying; maxim; proverb.

Good king, that must approve the common saw:
Thou out of Heaven's benediction comest
To the warm sun! *Shakspeare. King Lear.*

His weapons, holy saus of sacret writ *Shakspeare.*
Strict age and sour severity,
With their grave saus in slumber lie. *Milton.*

SAW, *n. s.* & *v. a.* } Sax. *paȝa*, or *piȝe*, of
 SAW'DUST, *n. s.* } Goth. *seȝa*, to cut; Fr. *scie*.
 SAW'PIT, } A denatented instrument
 SAW'WREST, } which cuts by attrition:
 SAWYER. } to use such an instru-
 ment: saw-dust is the dust it makes: saw-pit,
 a pit for the sawing of timber: saw-wrest an in-
 strument used in sharpening saws: sawyer, a
 man whose trade is to saw timber.

They were stoned, they were *sawn* asunder.

Hebrews.

A carpenter after he hath *sawn* down a tree, and
 wrought it handsomely, sets it in a wall.

Wisd. xiii. 11.

Let them from forth a *sawpit* rush at once
 With some diffused song. *Shakspeare.*

The roach is a leather mouthed fish, and has *saw*-
 like teeth in his throat. *Walton's Angler.*

It is an incalescency, from a swift motion, such as
 that of running, threshing, or *sawing*.

Ray on the Creation.

Then *saws* were toothed, and sounding axes made.

Dryden.

Rotten *sawdust*, mixed with earth, enriches it very
 much. *Mortimer's Husbandry.*

They colour it by laying it in a *sawpit* that hath
 oak *sawdust* therein. *Id.*

With the *saw-wrest* they set the teeth of the *saw* ;
 that is, they put one of the notches of the wrest be-
 tween the first two teeth on the blade of the *saw*, and
 then turn the handle horizontally a little about upon
 the notch towards the end of the *saw* ; and that at
 once turns the first tooth somewhat towards you,
 and the second tooth from you.

Moxon's Mechanical Exercise.

The pit-saw is used by joiners, when what they
 have to do may be as soon done at home as send it
 to the *sawyers*. *Id.*

If I cut my finger, I shall as certainly feel pain
 as if my soul was co-extended with the limb, and
 had a piece of it *sawn* through. *Collier.*

If the membrane be fouled by the *sawdust* of the
 bone, wipe it off with a sponge. *Wiseman.*

If they cannot cut,

His *saws* are toothless, and his hatchets lead. *Pope.*

SAWING. This is practically regarded as a
 distinct business from the trades, in which the
 saw is not only a very useful, but necessary im-
 plement, such as those of the carpenter, cabinet-
 maker, cooper, &c. The saw is an instrument
 which serves to cut into pieces several solid
 matters; as wood, stone, ivory, &c. The best
 saws are of tempered steel, ground bright and
 smooth; those of iron are only hammer-har-
 dened; hence the first, besides their being stiffer,
 are likewise found smoother. They are known
 to be well hammered by the stiff bending of the
 blade; and to be well and evenly ground by their
 bending equally in a bow. The edge in which
 are the teeth is always thicker than the back, be-
 cause the back is to follow the edge. The teeth
 are cut and sharpened with a triangular file, the
 blade of the saw being first fixed in a whetting-
 block. After they have been filed, the teeth are
 set, that is, turned out of the right line, that they
 may make the kerf or fissure the wider, that the
 back may follow the better. The teeth are al-
 ways set ranker for coarse cheap stuff than for
 hard and fine, because the ranker the teeth are
 set the more stuff is lost in the kerf. The saws
 by which marble and other stones are cut have

no teeth: these are generally very large, and are
 stretched out and held even by a frame. The
 lapidaries, too, have their saw, as well as the
 workmen in mosaic; but of all mechanics none
 have so many saws as the joiners; the chief are,
 1. The pit-saw, which is a large two-handed
 saw, used to saw timber in pits; this is chiefly
 used by the sawyers. 2. The whip-saw, which
 is also two-handed, used in sawing such large
 pieces of stuff as the hand-saw will not easily
 reach. 3. The hand-saw, which is made for a
 single man's use, of which there are various
 kinds; as the bow, or frame saw, which is fur-
 nished with cheeks: by the twisted cords which
 pass from the upper parts of these cheeks, and
 the tongue in the middle of them, the upper
 ends are drawn closer together, and the lower
 set further apart. 4. The tennon saw, which,
 being very thin, has a back to keep it from bend-
 ing. 5. The compass saw, which is very small,
 and its teeth usually not set; its use is to cut a
 round, or any other compass kerf: hence the
 edge is made broad, and the back thin, that it
 may have a compass to turn in.

The surgeons use a saw to cut off bones: this
 should be very small and light, in order to be
 managed with the greater ease and freedom, the
 blade exceedingly fine, and the teeth exquisitely
 sharpened, to make its way more gently, and yet
 with great expedition.

Saws are now generally used by butchers in se-
 parating the bones of the meat: the divisions by
 the saw are neater than those by the chopper, and
 there is a certain saving, as the chopper splinters
 bones, the parts of which cannot be included in the
 weight.

The *pit-saw* is that which is chiefly used in
 the employment properly denominated sawing.
 The teeth are set rank for coarse work, so as to
 make a fissure of about a quarter of an inch.
 To perform the work, the timber is laid on a
 frame over an oblong pit, called the saw-pit; and
 it is cut by means of a long saw fastened in a
 frame, which is worked up and down by two
 men, the one standing on the wood to be cut, and
 the other in the pit. As they proceed in their
 work they drive wedges, at proper distances from
 the saw, to keep the fissure open, which enables
 the saw to move with freedom. This, though a
 profitable, is a very laborious employment, and
 hence have been introduced saw-mills, which,
 in different countries, are worked by different
 means, as by men, by horses, by water, by wind,
 or by steam.

A *saw-mill*, worked by men, consists of several
 parallel saws, which are made to rise and fall
 perpendicularly by means of mechanical motion.
 In this case a very few hands are necessary to
 carry on the operation, to push forward the
 pieces of timber, which are either laid on rollers,
 or suspended by ropes, in proportion as the
 sawing advances. We shall, however, give a
 more detailed account of the saw-mills as used
 in various parts of the world. The history of
 the invention of sawing is curious, and may be
 inserted.

In early periods of society the trunks of trees
 were split with wedges, into as many, and as
 thin pieces as possible; and if it was necessary

to have them still thinner they were hewn, by some sharp instrument, on both sides, to the proper size. This simple but wasteful manner of making boards has been still continued in some places, to the present time. Peter the Great, of Russia, endeavoured to put a stop to it, by forbidding hewn deals to be transported on the river Neva. The wood-splitters perform their work more expeditiously than sawyers, and split timber is much stronger than that which has been sawn; for the fissure follows the grain of the wood, and leaves it whole; whereas the saw, which proceeds in the line chalked out for it, divides the fibres, and by these means lessens its cohesion and strength. Split timber, indeed, turns out often crooked and warped; but, in many purposes to which it is applied, this is by no means prejudicial; and the fault may sometimes be amended. As the fibres, however, retain their natural strength and direction, thin boards particularly can be bent much better. This is a great advantage in making pipe-staves, and in forming various implements of the like kind.

Our common saw, which needs only to be guided by the hand of the workman, however simple it may be, was not known to the inhabitants of America when they were subdued by the Europeans. The inventor of this instrument has, by the Greeks, been inserted in their mythology, with a place among those whom they have honored as the greatest benefactors of the earliest ages. By some he is called Talus, and by others Perdix. Pliny ascribes the invention to Dædalus, but Hardouin, in the passage where he does so, reads Talus rather than Dædalus. Diodorus Siculus, Apollodorus, and others, name the inventor Talus. He was the son of Dædalus's sister; and was, by his mother, placed under the tuition of her brother, to be instructed in his art. Having, it is said, once found the jaw-bone of a snake, he employed it to cut through a small piece of wood; and, by these means, was induced to form a like instrument of iron, that is, a saw. This invention, which greatly facilitates labor, excited the envy of his master, and instigated him to put Talus to death privately. We are told that, being asked, when he was burying the body, what he was depositing in the earth, he replied, 'A serpent.' This suspicious answer discovered the murder; and thus, adds the historian, a snake was the cause of the invention, of the murder, and of its being found out.

The saws of the Grecian carpenters had the same form, and were made in the like ingenious manner as ours are at present. This is fully shown by a painting still preserved among the antiquities of Herculaneum. Two genii are represented at the end of a bench, which consists of a long table that rests upon two four-footed stools. The piece of wood which is to be sawn through is secured by cramps. The saw with which the genii are at work has a perfect resemblance to our frame saw. It consists of a square frame, having in the middle a blade, the teeth of which stand perpendicularly to the plane of the frame. The piece of wood which is to be sawn extends beyond the end of the bench, and one of the workmen appears standing, and the other sitting

on the ground. The arms, in which the blade is fastened, have the same form as that given to them at present. In the bench are seen holes, in which the cramps that hold the timber are struck, and the ends of them reach below the boards that form the top of it.

The most beneficial and ingenious improvement of this instrument was, without doubt, the invention of saw-mills; which are now generally driven either by steam, by water, or by the wind. Mills of the first kind were erected so early as the fourth century, in Germany, on the small river Roer or Raer, for though Ausonius speaks of water-mills for cutting stone, and not timber, it cannot be doubted that these were invented later than mills for cutting out deals, or that both kinds were erected at the same time. Pliny conjectures that the mill for cutting stone was invented in Caria; at least he knew no building incrustured with marble of greater antiquity than the palace of king Mausolus, at Halicarnassus. This edifice is celebrated by Vitruvius for the beauty of its marble; and Pliny gives an account of the kinds of sand used for cutting it; for it is the sand, he says, and not the saw, which produces that effect. The latter presses down the former, and rubs it against the marble; and the coarser the sand is, the longer will be the time required to polish the marble which has been cut by it. Notwithstanding these facts there is no account in any of the Greek or Roman writers of a mill for sawing wood; and, as the writers of modern times speak of saw-mills as new and uncommon, it would seem that the oldest construction of them has been lost, or that some important improvement has made them appear entirely new. Becher says that saw-mills were invented in the seventeenth century. In this he erred; for when settlers were conveyed to the island of Madeira, which was discovered in 1420, saw-mills were erected also, for the purpose of sawing into planks the various species of excellent timber with which the island abounded, and which were afterwards transported to Portugal. About the year 1427 the city of Breslau had a saw-mill, which produced a yearly rent of three marks; and in 1490 the magistrates of Erfurt purchased a forest, in which they caused a saw-mill to be erected, and they rented another mill in the neighbourhood besides. Norway, which is covered with forests, had the first saw-mill about the year 1530. This mode of manufacturing timber was called the new art; and, because the exportation of deals was by these means increased, that circumstance gave occasion to the deal-tithe, introduced by Christian III. in the year 1545. Soon after the celebrated Henry Canzau caused the first mill of this kind to be built in Holstein. In 1552 there was a saw-mill at Joachimsthal, which, as we are told, belonged to Jacob Geusen, mathematician. In the year 1555 the bishop of Ely, ambassador from Mary queen of England to the court of Rome, having seen a saw-mill in the neighbourhood of Lyons, the writer of his travels thought it worthy of a particular description. In the sixteenth century, however, there were mills with different saw-blades, by which a plank could be cut into several deals at the same time. The first saw-mill was erected in Holland.

at Saardam, in the year 1596; and the invention of it is ascribed to Cornelius Cornelissen. Perhaps he was the first person who built a saw-mill at that place, which is a village of great trade, and has still a great many saw-mills, though the number of them is becoming daily less; for within the last thirty years 100 have been given up. The first mill of this kind in Sweden was erected in the year 1653. At present that kingdom possesses the largest perhaps ever constructed in Europe, where a water-wheel, twelve feet broad, drives at the same time seventy-two saws.

In England saw-mills had at first the same fate that printing had in Turkey, the ribbon-loom in the dominions of the church, and the crane in Strasburg. When attempts were made to introduce them they were violently opposed, because it was apprehended that the sawyers would be deprived by them of their means of getting a subsistence. For this reason it was found necessary to abandon a saw-mill erected by a Dutchman near London, in 1663; and in the year 1700, when one Houghton laid before the nation the advantages of such a mill, he expressed his apprehension that it might excite the rage of the populace. What he dreaded was actually the case in 1767 or 1768, when an opulent timber-merchant, by the desire and approbation of the Society of Arts, caused a saw-mill, driven by wind, to be erected at Limehouse, under the direction of James Hansfield, who had learned, in Holland and Norway, the art of constructing and managing machines of that kind. A mob assembled and pulled the mill to pieces; but the damage was made good by the nation, and some of the rioters were punished. A new mill was afterwards erected, which was suffered to work without any molestation, and which gave occasion to the erection of others. It appears, however, that this was not the only mill of the kind then in Britain; for one driven also by wind had been built at Leith, in Scotland, some years before.

Saw-mills, as they are now constructed, are of two kinds, according as the saws employed affect their operation by a circular or by a reciprocating motion. Circular saw-mills are the most simple in their construction. At a manufactory for hollow masts, on the Surrey side of Westminster bridge, are several of them. In one of the simplest, a wheel is turned by a horse, which gives motion to a pinion on a horizontal shaft; a spur-wheel is fixed on the shaft, and turns a pinion on another horizontal shaft, on which a wheel is fixed in the room above the machine, and the bearings for the gudgeons of the shaft are supported on the joists of the floor: by means of an endless strap passing round this wheel, and round a pulley on the spindle of the circular saw, a rapid motion is given to the saw: it is fixed on a spindle by a shoulder, against which it is held by another moveable shoulder pressed tight by its nut, on the end of the spindles which is tapped into a screw to receive it. The saw has a circular hole through the middle fitting tight upon the spindle, so as to cause them to turn together. The ends of the spindle are pointed, and that point nearest the saw works in

a hole made in the end of a screw, screwed in a bench of stout planks, and well braced together; the other turns in a similar screw passed through a cross beam mortised between two vertical beams extending from the floor to the ceiling: one of the beams can be raised or lowered in its mortises by wedges put both above and below its tenons. In order to adjust the plane of the saw to the plane of the bench, there is a long parallel ruler, which can be set at any distance from the saw, and fixed by means of screws going through circular grooves cut through the bench. In using the machine, the ruler is to be set the proper distance from the saw of the piece of wood to be cut, and as the saw turns round, a workman slides the end of a piece of wood to it, keeping its edge against the guide or ruler, that it may cut straight. We have witnessed the operation, which is as neat as it is expeditious and ingenious. When the saw requires sharpening, one of the screws at the end of its spindle must be turned back: the spindle and saw can be then removed, and may be fixed in a common vice to whet it, in the same manner as a common saw; the outsides of the teeth are not filed to leave a surface perpendicular to the plane of the saw, but inclined to it, and in the same direction that each tooth so filed is bent in the setting; by this means, the saw, when cutting, first takes away the wood at the two sides of the kerf, leaving a ridge in the middle of it, the use of which is to keep the saw steady in a right line, that it may not have a tendency to get out of the straight line in any place where the wood is harder at one side than on the other. The most important machinery of this kind that we have seen is, unquestionably, at Portsmouth, for the manufacturing of ships' blocks.

The great cross-cutting saw may be thus described.—The tree subjected to the action of this machine is placed on a long frame or bench raised a little from the floor, and at the end of it is erected a frame, composed of vertical posts and cross timber, in the manner of a small and low door-way; through this frame the end of the tree is drawn by the capstan above-mentioned its end projecting as much from the surface of the frame as is intended to be cut off; and it is fastened in the frame from rolling sideways, by a lever, which can be readily made to press upon it and hold it down. The saw itself is a straight blade, fixed into a wooden handle or pole at each end, to lengthen it; one of these handles is connected by a joint to the upper end of a lever, bent like an L, and having its centre beneath the floor: the horizontal arm of the lever is connected by a spear-rod, with a crank on the end of a spindle near the ceiling of the room, the motion of which is regulated by a fly-wheel. By this means the saw has a reciprocating motion from right to left, nearly in a horizontal position, and exactly across the log it is to cut off, imitating in its motion the carpenter's hand-saw, considering his arm as the arm of the bent or L lever. The teeth of the saw are of course on the lower side of the blade, and are sloped so as to cut in drawing towards the lever. It rises and falls freely upon its joint at the end of the lever, and can be lifted up by the handle, at the opposi-

end of the blade, to take it off its work, which it follows up by its own weight. The machine being at rest is prepared for work, by fixing the log in the frame as before mentioned, so that the surface of the frame intersects the log at the place where it is intended to be cross-cut. The saw, which was before lifted up by its handle, to be clear above the log, is now suffered to rest upon it, in the place where the cut is to be made; and, to guide it at first setting in, the back of the saw is received in a saw kerf, made in the end of a piece of board, which is attached to the frame over the saw, but slides up and down in a groove to reach the saw at any height, according to the thickness of the log lying beneath it. Being thus prepared, the machine is put in action by a rope or strap which turns the fly-wheel and its crank. This, giving a vibration to the bent or L lever, causes the saw to reciprocate horizontally across the tree, until it cuts it through: it follows up its cut by its own weight alone, but the attendant can at any time lift up the saw from its work, though its motion continues, by means of a rope which suspends the handle of the saw, when required. As the saw gets into the tree it quits the guide above-mentioned, which becomes the less necessary as the saw goes deeper; a saw having no tendency to alter its first course, when cutting across the grain of the wood. We admire the simplicity of this machine, which nevertheless executes its work with much accuracy and expedition. It might be very usefully employed in many situations where great manual labor is spent in cross-cutting large logs of timber.

The cross-cutting circular saw.—This machine is for similar purposes, and stands close by the former. It is a circular saw, whose spindle is so mounted as to move in any direction parallel to itself; the saw all the while continuing in the same plane, and revolving rapidly upon its axis, cuts the wood it is presented to, and as it admits of being applied at first on one side, and then on another side of the tree, a saw of moderate dimensions will be sufficient to divide larger trees than could otherwise be done by it.

The great reciprocating saw for cutting up trees lengthwise.—In this machine the saw works vertically: it has an horizontal carriage, on which the timber is fastened; this passes through a vertical frame with grooves, in which another frame slides up and down in the manner of a window-sash, and has the saw stretched in it. The saw-frame is moved up and down by means of a crank on an axis beneath the floor, which is turned by means of an endless rope. At every time the saw rises and falls, it turns a ratchet-wheel round, by means of a click, a few teeth; and this has on its axis a pinion, working a rack attached to the carriage of the tree, which by this means is advanced: at every stroke, the saw makes a proper quantity for another cut. The saw-frame is adapted to hold several saws parallel to each other, for sawing a tree into several boards at once, when required.

Saw-mills, for cutting blocks of stone, are moved horizontally. When a completely cylindrical pillar is to be cut out of one block of stone, the first thing will be to ascertain in the

block the position of the axis of the cylinder: then lay the block so that such axis shall be parallel to the horizon, and let a cylindrical hole of from one to two inches diameter be bored entirely through it. Let an iron bar, whose diameter is rather less than that of this tube, be put through it, having just room to slide freely to and fro as occasion may require. Each end of this bar should terminate in a screw, on which a nut and frame may be fastened. The nut-frame should carry three flat pieces of wood or iron, each having a slit running along its middle nearly from one end to the other, and a screw and handle must be adapted to each slit; by these means the frame-work at each end of the bar may readily be so adjusted as to form equal isosceles or equilateral triangles; the iron bar will connect two corresponding angles of these triangles, the saw to be used two other corresponding angles, and another bar of iron, or of wood, the two remaining angles, to give sufficient strength to the whole frame. This construction, it is obvious, will enable the workmen to place the saw at any proposed distance from the hole drilled through the middle of the block; and then, by giving the alternating motion to the saw-frame, the cylinder may at length be cut from the block, as required. This method was first pointed out in the collection of machines approved by the Paris academy. If it were proposed to saw a conic frustum from such a block, then let two frames of wood or iron be fixed to those parallel ends of the block which are intended to coincide with the bases of the frustum, circular grooves being previously cut in these frames to correspond with the circumferences of the two ends of the proposed frustum; the saw being worked in these grooves will manifestly cut the conic surface from the block. This is the contrivance of Sir George Wright.

The best method of drilling the hole through the middle of the proposed cylinder seems to be this:—On a carriage, running upon four low wheels, let two vertical pieces (each having a hole just large enough to admit the borer to play freely) be fixed two or three feet asunder, and so contrived that the pieces and holes to receive the borer may, by screws, &c., be raised or lowered at pleasure, while the borer is prevented from sliding to and fro by shoulders upon its bar, which are larger than the holes in the vertical pieces, and which, as the borer revolves, press against those pieces. Let a part of the boring-bar between the two vertical pieces be square, and a grooved wheel with a square hole of a suitable size be placed upon this part of the bar; then the rotatory motion may be given to the bar by an endless band, which shall pass over this grooved wheel and a wheel of a much larger diameter in the same plane, the latter wheel being turned by a winch handle in the usual way. As the boring proceeds, the carriage with the borer may be brought nearer the block, by levers and weights, in the same manner as in pipe-making.

SAXE (Maurice, count), was born in 1696. He was the natural son of Frederick Augustus II., elector of Saxony, and king of Poland, and of the countess of Königsmarc, a Swedish lady,

celebrated for her wit and beauty. He was educated with Frederick Augustus, the electoral prince, afterwards king of Poland. He served his first campaign in the army commanded by prince Eugene and the duke of Marlborough, when only twelve years old. He signalised himself at the sieges of Tournay and Mons, and particularly at the battle of Malplaquet. During the campaign of 1710 prince Eugene and the duke of Marlborough paid many public encomiums to his merit. Next year the young count accompanied the king of Poland to the siege of Stralsund, the strongest place in Pomerania, and displayed the greatest intrepidity. He swam across the river in sight of the enemy, with a pistol in his hand. His valor shone no less conspicuously on the bloody day of Gaedelbusck, where he commanded a regiment of cavalry. He had a horse killed under him, after he had three times rallied his regiment, and led them on to the charge. Soon after that campaign, his mother prevailed on him to marry the countess of Lubin, a lady both rich and beautiful. This union lasted but a short time. In 1721 the count procured a dissolution of the marriage; a step of which he afterwards repented. In 1717 he went to Hungary, where the emperor had an army of 15,000 men under prince Eugene. Young count Saxe was present at the siege of Belgrade, and at a battle which the prince gained over the Turks. On his return to Poland, in 1718, he was made a knight of the golden eagle. The wars in Europe being concluded by the treaties of Utrecht and Passarowitz, count Saxe went to France. He spent his time during the peace, in studying mathematics, fortification, and mechanics. At sixteen he invented a new exercise, which was taught in Saxony with the greatest success. Having obtained a regiment in France, in 1722, he formed it according to his new plan. In 1726 the states of Courland chose him for their sovereign. But both Poland and Russia rose in arms to oppose him. The czarina wished to bestow the duchy on prince Menzikoff. Menzikoff sent 800 Russians to the new chosen duke in his palace. Count Saxe, who had only sixty men, defended himself with astonishing intrepidity. The siege was raised, and the Russians obliged to retreat. Soon after he retired to Usmaiz, and prepared to defend his people against the two hostile nations. Here he remained with only 300 men, till the Russian general approached at the head of 4000 to force his retreat. That general invited the count to a conference, during which he intended to surprise him, and take him prisoner. The count, informed of the plot, avoided the conference. About this time he wrote to France for men and money. Madame le Couvreur, a famous actress, pawned her jewels and plate, and sent him 40,000 livres. The count, unable to defend himself against Russia and Poland, was obliged in 1729 to leave his new dominions and retire into France. Count Saxe, thus stript of his territories, devoted himself to the study of mathematics. He composed also, in thirteen nights, and during the intervals of an ague, his *Reveries*, which he corrected afterwards. The death of the king of Poland his father, in 1733, kindled

a new war in Europe. His brother, the elector of Saxony, offered him the command of all his forces, but he preferred the French service, and repaired to the duke of Berwick, who was encamped on the Rhine. The count, at the head of a regiment of grenadiers, forced the enemy's lines, and by his bravery decided the victory. He behaved at the siege of Philipsburg with no less intrepidity. For these services he was, in 1734, rewarded with the rank of lieutenant-general. Peace was concluded in 1736; but the death of the emperor Charles VI. kindled a new war. Prague was besieged by the count in 1741, near the end of November, and taken by assault. The conquest of Egra followed a few days after: and Charles VII. wrote a congratulatory letter to Saxe with his own hand. In 1744 he was made marshal of France, and commanded a part of the French army in Flanders. During that campaign he displayed the greatest military conduct. Though the enemy was superior in number, he watched their motions so skilfully that they could do nothing. In January 1745 an alliance was concluded at Warsovia, between the queen of Hungary, the king of England, and the states of Holland. He went soon after, though exceedingly ill, to take the command of the French army in the Low Countries. When the battle of Fontenoy was fought, M. Saxe was at the point of death, yet he caused himself to be put into a litter, and carried round all the posts. During the action he mounted on horseback though very weak. The victory of Fontenoy, owing entirely to his vigilance and capacity, was followed by the reduction of Tournay, Bruges, Ghent, Oudenarde, Ostend, Ath, and Brussels: this last city was taken on the 28th of February 1746; and very soon after the king sent to the marshal a letter of naturalisation in the most flattering terms. The succeeding campaigns gained him additional honors. After the victory of Raucoux, which he gained on the 11th of October 1746, the king of France made him a present of six pieces of cannon. He was, on the 12th of January 1747, created marshal of all the French armies, and, in 1748, commander-general of all those parts of the Netherlands which he had conquered. Holland now began to tremble for her safety. Maestricht and Bergen op Zoom had already fallen, and nothing but misfortunes seemed to attend the further prosecution of the war. The states general therefore offered terms of peace, which were accepted, and a treaty concluded on the 18th of October 1748. M. Saxe retired to Chambord, a country seat which the king of France had given him. Some time after he went to Berlin, and, on his return to France, he spent his time among men of learning, artists, and philosophers. He died of a fever, on the 30th of November 1750, aged fifty-four. His life had been, he said, an excellent dream. He was remarkably careful of the lives of his men. One day a general officer was pointing out to him a post which would have been of great use. It will only cost you, says he, a dozen grenadiers. That would do very well, replied the marshal, were it only a dozen lieutenant-generals. He had been educated and died in the Lutheran religion. His heart was put into a silver gilt box,

and Louis XV. was at the charge of his funeral. His corpse was interred with great splendor in the Lutheran church of St. Thomas, at Strasburg, on the 8th of February, 1751. The best edition of his *Reveries* was printed at Paris 1757, in 2 vols. 4to. It was compared with the original MS. in the king's library. It is accompanied with many designs exactly engraved, and a Life of the Author. M. d'Espagnac published the count's life, in 2 vols. 12mo.

SAXIFRAGA, saxifrage, in botany, a genus of the digynia order and decandria class of plants; natural order thirteenth, succulentæ: CAL. quinquepartite: COR. pentapetalous: CAPS. birostrated, unilocular, and polyspermous. There are thirty-eight species; of which the most remarkable are these:—

1. *S. granulata*, or white saxifrage, which grows naturally in the meadows in many parts of England. The roots of this plant are like grains of corn, of a reddish color without; from which arise kidney-shaped hairy leaves, standing upon pretty long foot-stalks. The stalks are thick, a foot high, hairy, and furrowed; these branch out from the bottom, and have a few small leaves like those below, which sit close to the stalk: the flowers terminate the stalk, growing in small clusters; they have five white petals, enclosing ten stamina and the two styles. There is a variety of this with double flowers, which is very ornamental.

2. *S. oppositifolia* grows naturally on the Alps, Pyrenees, and Helvetian mountains: it is also found pretty plentifully growing upon Ingleborough Hill in Yorkshire, Snowdon in Wales, and some other places. It is a perennial plant, with stalks trailing upon the ground, and are seldom more than two inches long, garnished with small oval leaves standing opposite, which lie over one another like the scales of a fish: they are of a brown-green color, and have a resemblance of leath. The flowers are produced at the end of the branches, of a deep blue; and thus make a pretty appearance during their continuance, which is great part of March and the beginning of April.

3. *S. punctata*, London pride, grows naturally on the Alps, and also in great plenty on a mountain of Ireland called Mangerton in the county of Kerry. The roots of this are perennial; the leaves are oblong, oval, and placed circularly at bottom. They have broad, flat, furrowed foot-stalks, and are deeply flattened at their edges, which are white. The stalk rises a foot high, is of a purple color, stiff, slender, and hairy. It sends out from the side on the upper part several short foot-stalks, which are terminated by white flowers spotted with red.

4. *S. pyramidata*, mountain heath, with a pyramidal stalk, grows naturally on the mountains of Italy. The leaves are tongue-shaped, gathered into heads, rounded at their points, and have cartilaginous and sawed borders. The stalk rises two feet and a half high, branching out near the ground, forming a natural pyramid to the top. The flowers have five white wedge-shaped petals, and ten stamina, placed circularly the length of the tube, terminated by roundish purple summits. When these plants are strong,

they produce very large pyramids of flowers, which make a fine appearance. All these species are easily propagated by offsets, or by parting their roots.

SAXIFRAGE, *n. s.* } Fr. *saxifrage*; Lat. *SAXIFRAGOUS*, *adj.* } *saxum* and *frango*. A plant: dissolvent of the stone. See below.

Saxifrage, quasi *saxum* frangere, to break the stone, is applicable to any thing having this property; but it is a term most commonly given to a plant, from an opinion of its medicinal virtues to this effect.

Quincy.

Because goat's blood was found an excellent medicine for the stone, it might be conceived to be able to break a diamond; and so it came to be ordered that the goats should be fed on *saxifragous* herbs, and such as are conceived of power to break the stone. *Broune's Vulgar Errors.*

SAXO GRAMMATICUS, descended from an illustrious Danish family, was born about the middle of the twelfth century. Stephen, in his edition of *Saxo Grammaticus*, printed at Sorøë, asserts that he must have been alive in 1156, but cannot ascertain the exact place and time of his birth. On account of his learning, Saxo was distinguished by the name of Grammaticus. He was provost of the cathedral church of Roskild, and warmly patronised by the learned and warlike Absolon, the celebrated archbishop of Lunden, at whose instigation he wrote the *History of Denmark*. His epitaph, a dry panegyric in bad Latin verses, gives no account of the era of his death, which happened, according to Stephens, in 1204. His history, consisting of sixteen books, begins from the earliest accounts of the Danish annals, and concludes with the year 1186. The first part, which relates to the origin of the Danes, and their ancient kings, is full of fables; but the last eight books, and particularly those which regard the events of his own times deserve the utmost credit. He wrote in Latin: the style, if we consider the barbarous age in which he flourished, is, in general, elegant. Mallet, in his *Histoire de Dannemarc*, vol. i. p. 182, says that Sperring, a writer of great erudition, has proved, in contradiction to the assertions of Stephens and others, that Saxo Grammaticus was secretary to Absolon; and that the Saxo, provost of Roskild, was another person, and lived earlier.

SAXONS, the natives of Saxony, ancient and modern. The ancient Saxons were a brave but fierce people. The Britons, or inhabitants of South Britain, being deserted by the Romans, about the middle of the fifth century, and threatened with utter extirpation by the Scots and Picts, invited the Saxons over from Germany to assist and defend them; in consequence of which a numerous body of them came over under Hengist and Horsa, A. D. 449 or 450; and, repeated emigrations of fresh adventurers successively arriving afterwards, they soon conquered and divided all South Britain, since called England, into seven kingdoms, commonly denominated the Saxon heptarchy. 'See ENGLAND. With regard to the history of the Saxons, previous to the fourth century, we have very few particulars. 'The Saxons,' says Mr. Whitaker, 'have been derived by our historians from very

different parts of the globe; India, the north of Asia, and the forests of Germany. And their appellation has been equally referred to very different causes; the name of their Indian progenitor, the plundering disposition of their Asiatic fathers, and the short hooked weapons of their warriors.' But the real origin of the Saxons, and the genuine derivation of their name, seem clearly to be these:—In the earlier period of the Gallic history, the Celtæ of Gaul crossed the Rhine in considerable numbers, and planted various colonies in the regions beyond it. Thus the Volcæ Tectosages settled on one side of the Hercynian forest and about the banks of the Neckar; the Helvetii upon another, and about the Rhine and Maine; the Boii beyond both; and the Senones in the heart of Germany. Thus also we see the Treviri, the Nervii, the Suevi, and the Marcomanni, the Quadi, the Venedi, and others in that country; all plainly betrayed to be Gallic nations by the Gallic appellations which they bear, and all together possessing the greatest part of it. And, even as late as the conclusion of the first century, we find one nation on the eastern side of this great continent actually speaking the language of Gaul, and another upon the northern using a dialect nearly related to the British. But as all the various tribes of the Germans are considered by Strabo to be *γεννησιοι Γαλαται*, or genuine Gauls in their origin; so those particularly, who lived immediately beyond the Rhine, and are asserted by Tacitus to be indubitably native Germans, are expressly denominated *Γαλαται*, or Gauls, by Diodorus, and as expressly declared by Dio to have been distinguished by the equivalent appellation of Celtæ from the earliest period. And the broad line of nations, which extended along the ocean, and reached to the borders of Scythia, was all known to the learned in the days of Diodorus by the same significant appellation of *Γαλαται*, or Gauls. Of these, the most noted were the Si-Cambri and Cimbri; the former being seated near the channel of the Rhine, and the latter inhabiting the peninsula of Jutland. The denominations of both declare their original, and show them to have been derived from the common stock of the Celtæ, and to be of the same Celtic kindred with the Cimbri of our own Somersetshire, and the Cymbri or Cambrians of our own Wales. The Cimbri are accordingly denominated Celtæ by Strabo and Appian: and they are equally asserted to be Gauls by Diodorus; to be the descendants of that nation which sacked the city of Rome, plundered the temple of Delphi, and subdued a great part of Europe and some of Asia. Immediately to the south of these were the Saxons, extending from the isthmus of the Chersonesus to the current of the Elbe; and they were equally Celtic in their origin as their neighbours. They were denominated Ambrones, as well as Saxons; and, as such, are included by Tacitus under the general appellation of Cimbri, and comprehended by Plutarch under the equal one of Celto-Scythæ. The name of Ambrones appears particularly to have been Gallic; being common to the Saxons beyond the Elbe, and the Ligurians in Cisalpine Gaul; as both found, to their surprise, on the irruption of the former into Italy with the Cimbri. And, what is

equally surprising, and has been equally unnoticed by the critics, the Welsh distinguish England by the name of Loegr or Liguria, even to the present moment. In that irruption, these Saxons, Ambrones, or Ligurians, composed a body of more than 30,000 men, and were principally concerned in cutting to pieces the large armies of Manlius and Cæpio. Nor is the appellation of Saxons less Celtic than the other. It was originally the same with the Belgic Suessones of Gaul; the capital of that tribe being now entitled Soissons by the French, and the name of the Saxons pronounced Saisen by the Welsh, Sason by the Scots, and Saisenach or Sachsenath by the Irish. And the Suessones or Saxones of Gaul derived their own appellation from the position of their metropolis on a river, the stream at Soissons being now denominated the Aisne, and formerly the Axon; Uess-on, or Axon, importing only waters, or a river, and S-uess-on or S-ax-on on the waters of the river. The Suessones, therefore, are actually denominated the Uessones by Ptolemy; and the Saxones are actually entitled the Axones by Lucan. These, with their brethren and allies the Cimbri, having been more formidable enemies to the Romans by land than the Samnites, Carthaginians, Spaniards, Gauls, or Parthians, in the second century applied themselves to navigation, and became nearly as terrible by sea. They soon made themselves known to the inhabitants of the British isles by their piracies in the northern channels, and were denominated by them Lochlyn or Lochlynach; lued-lyn signifying the people of the wave, and the D being quiescent in the pronunciation. They took possession of the Orkney Islands, which were then merely large shoals of land, uncovered with woods, and overgrown with rushes; and they landed in the north of Ireland, and ravaged the country. Before the middle of the third century they made a second descent upon the latter, disembarked a considerable body of men, and designed the absolute subjection of the island. Before the conclusion of it, they carried their naval operations to the south, infested the British Channel with their little vessels, and made frequent descents upon the coasts. And in the fourth and fifth centuries, acting in conjunction with the Picts of Caledonia and the Scots of Ireland, they ravaged all the east and south-east shores of Britain, began the formal conquest of the country, and finally settled their victorious soldiery in Lancashire.

The division of *Germany* into circles took place towards the close of the fifteenth century, when the large tract of country known vaguely by the name of Saxony, was formed into three circles, Westphalia, Upper Saxony, and Lower Saxony. Upper might with more propriety have been styled Eastern Saxony, being bounded by Poland, Silesia, and Lusatia on the east, and by Bohemia and Franconia on the south. Its extent was about 43,000 square miles; its population about 4,000,000. It comprised the electorates of Saxony and Brandenburg, the duchy of Pomerania, and a number of small principalities. The name of Upper is to be understood as implying a surface of such comparative elevation as to cause several rivers (the Elbe, Spree, and

others) to flow to the westward towards Lower Saxony. That country, which might have been termed Western Saxony, had Westphalia and the Rhine to the west, and Sleswick with the Baltic to the north. Its area contained 26,000 square miles, and comprised the electorate of Hanover, the duchies of Mecklenburg, Brunswick, and Holstein, the free towns of Hamburgh, Bremen, Lubeck, with a number of small states. In 1806 the distinction of circles was finally abolished, and the names of Upper and Lower Saxony are now of use only in history.

SAXONY, a modern kingdom of Europe, is situated towards the north-east of Germany, and bounded on the south by Bohemia, and on the north by the Prussian states. Previous to 1814 it contained 2,000,000 of inhabitants (exclusive of the part of Poland subject to this crown); but it was reduced by the congress of Vienna. At present its divisions, extent and population, are,

	Square miles.	Population.
Circle of Meissen	1600	300,000
Leipsic	1460	207,000
Erzgebirge	2175	460,000
Vogtland	700	90,000
Part of Merseburg	73	10,000
Upper Lusatia	1180	170,000
Total	7188	1,237,000

The length of Saxony is 140 miles, its greatest breadth about seventy-five.

No part of Europe in the same latitude enjoys a milder climate. Towards the north-east of the frontier line, and in a quarter where the lofty range of the Erzgebirge is succeeded by a lower, called the Wohlische Kanm, the Elbe issues from Bohemia. The other considerable rivers are the two Elsters, the two Muldas, and the Queiss, all rising in the south of Saxony, and flowing northward, but not navigable here. The Elbe, on the other hand, is navigable, and, by its course through the centre of the country, affords a noble conveyance for merchandise. The mountainous districts in the south contain extensive forests, which are kept up with care as the supply of fuel for the mines. Coal and turf are used for domestic fuel. In the southern and mountainous parts the valleys only are well cultivated; but in the level districts, particularly the circles of Meissen and Leipsic, the products are wheat, barley, oats, and other grain, tobacco and hops. Vines are found in a few situations.

The number of sheep is large, and great care has been bestowed on the Merino rams, first imported about the year 1768; the Saxon wool, indeed, has been rendered, by good management, the best in Germany. Hogs are also numerous.

Few countries equal Saxony in mineral riches. The rocks of the Erzgebirge furnished Werner with the facts on which he founded a system of geology. The basis of the Erzgebirge is granite, covered by gneiss, mica, and clay slate in succession. Between these are strata, containing

metallic ores. The rocks, called in this country weiss-stein (white-rock), contain a variety of heterogeneous substances, such as feldspar, mica, garnet, and cyanite. Basalt is found in various parts, towering above the others in lofty polygonal columns. The topaz occurs frequently, and there are found also chrysolites, amethysts, chalcodones, cornelians, agates, jasper, garnets, and tourmalins; serpentine, asbest, amianthus, barytes, and fluates of lime. The porcelain clay in the neighbourhood of Meissen is well known; here are also fullers'-earth, terra-sigillata, and other argillaceous minerals. There are also a few silver mines. The lofty primitive mountains abound in iron; the secondary in copper and lead. Next to these are arsenic, cobalt, antimony, manganese, zinc, sulphur, alum, vitriol, and borax.

The manufactures and trade are of great extent, and are somewhat similar to those of England. The weaving of linen is an employment of old date, and is carried on in almost every village of the kingdom, but more particularly in Upper Lusatia, at Zittau, Bautzen, and Herrnhut. Woollens are likewise manufactured extensively, and cotton spinning and weaving on a good scale. The machinery used in Saxony, though inferior to the English, has of late years been much improved; labor also is cheap. There are silk manufactures on a small scale at Leipsic and other towns. Tanneries are more general, and paper manufactories are not inconsiderable. Every town of consequence has its breweries and distilleries. The manufactures connected with the mines are of course of considerable extent. At Dresden there are foundries of cannon and balls. Cobalt is made into smalts and blue dye in several towns in the mining district; other places are noted for the manufacture of verdigris and green dye.

The exports from Saxony consist in wool and minerals; linen, yarn, woollens, and lace. The imports are silk, flax, cotton, coffee, sugar, wine, and in certain seasons corn. The most trading place is Leipsic, which is remarkable both for its half-yearly fairs, and for being the centre of the book trade.

Saxony reckons among its inhabitants a great majority of Lutherans, but the reigning family have been Catholics since 1697. The institutions for education in this country are numerous and well conducted, it being a common remark that in no country, except Scotland and the Pays de Vaud, are the lower classes so generally taught to read and write. In no country of equal extent is the number of printing and book establishments so great. Halle now belongs to Prussia, but Leipsic remains to Saxony, and maintains its reputation. The German character predominates among this people, as is evinced, among other things, by the minuteness with which they too often treat an insignificant subject; also in the more creditable points of the general modesty of their females.

The revenue of Saxony, after defraying all local expenses, probably exceeds £1,000,000 sterling, and Saxony has long been burdened with a national debt. The army, which in this country was never large in proportion to its po-

pulation, is on a peace establishment of 12,000 men, the best disciplined part of whom are cavalry and artillery.

After being, during many centuries, an electorate, Saxony was formed in 1806 into a kingdom, in consequence of the occupancy of Prussia by Buonaparte. This change of title was not accompanied by an extension of prerogative, the sovereign continuing to share the legislative functions with the states. The states are divided into two houses, viz. the prelates and nobles in one, and in the other the country gentry and deputies of the towns. The higher offices of administration are entrusted to a cabinet council, a board of finance, a military board, a high court of appeal for judicial questions, and an upper consistory for ecclesiastical. Each circle has a court of justice, and offices for the transaction of provincial business. The peasantry are here in the enjoyment of complete personal freedom.

The king, as a member of the Germanic confederation, has the fourth rank in the smaller, and four votes in the larger assembly.

Saxony remained neutral in the war of 1740 between Prussia and Austria. In that of 1756 she was tempted to take part by Austria; but, instead of an accession of territory, she saw her dominions ravaged and many of her subjects ruined. The peace of 1763 left her country loaded with an enormous debt. In the war of 1793 the contingent furnished by Saxony against France was not large, and no decided part was taken in the war, until 1806, when the elector sent all his troops to the support of the king of Prussia. The overthrow of that power enabled Buonaparte to attach the Saxons to his cause. The title of elector was changed to that of king. Prussian Poland was added to the Saxon dominions, and in 1809 was nearly doubled by cessions from Austria. But these acquisitions led to disastrous results. The Russians re-occupied Poland in the beginning of 1813, and, joined by the Prussians, made Saxony the scene of the great struggle against Buonaparte. Many of the people, however, flattered themselves that their attachment to the cause of Germany, evinced by the defection of their troops from the French army on the 18th October, would secure the integrity of the territory. The interval between the battle of Leipsic and the decision of the congress of Vienna (nearly eighteen months) was balanced between hope and fear, and cruel was the disappointment of the Saxons, on finding that the northern and eastern part, containing no less than 850,000 inhabitants, was to be transferred to Prussia. The king protested against this dismemberment; but, dreading bloodshed, he thought proper to acquiesce.

SAXONY, a province of the Prussian states, situated to the west of Brandenburg, and north of the kingdom of Saxony. It comprises almost the whole of the cessions made by the latter power at the congress of Vienna, the principalities to the north of the duchy of Anhalt, and to the west of the rivers Elbe and Havel; so that the whole now forms an area of 9830 square miles, with more than 1,000,000 of inhabitants. It is divided into the governments of Magdeburg, Merseburg, and Erfurt, and forms a

distinct military division; the chief town is Magdeburg.

This province is in general level, the only hills being part of the Hartz, in the south-west corner, and a detached part of the Thuringian forest. The rest is varied only by insignificant elevations. The soil, however, varies, being in some places dry and sandy, and in others a heavy loam. No part of the Prussian states possesses a more fertile land and good husbandry. There are some large forests, but in the far greater part wood is scarce. The objects of cultivation are corn, hemp, flax, and chicory for making coffee. Pit coal and metals are found in the mountains of the Hartz; porcelain clay in the level ground in the south; but the product hitherto most profitable is salt obtained from brine springs by evaporation. The richest of these springs is in the government of Merseburg, where it is often difficult to find pure water for drinking. The inhabitants are almost all Protestants, except in the little district called the Eichsfeld. Having enjoyed the benefits of an enlightened government, both under Prussia and Saxony, they are in general active and industrious. The commerce is insignificant.

SAY, *v. a., v. n. & n. s.* } Sax. *sæczan*; Belg. *SAYING, n. s.* } *seggan*; Teut. *sagen*.
To speak; utter in words; allege; repeat: to pronounce; utter; relate: as a noun-substantive, a speech, and (abridged from ASSAY) a sample; trial: saying is an expression; a word; a proverb.

And hise britheren *seiden* to him, *passe fro hennis*, and go into Judee, that also thi *disciplis* *seen* thi werkis that thou doist. *Wiclif Jon. 7.*

Speak unto Solomon; for he will not *say* thee nay. *1 Kings.*

He said moreover, I have somewhat to *say* unto thee; and she said, *Say* on. *Id.*

Say nothing to any man, but go thy way. *Mark.*

Moses fled at this *saying*, and was a stranger in Midian. *Acts.*

Then shall be *said* or sung as follows. *Common Prayer.*

So good a *say* invites the eye,
A little downward to espy
The lively clusters of her breast. *Sidney.*

Say it out, Diggon, whatever it hight. *Spenser.*

With flying speed, and seeming great pretence,
Came messenger with letters which his message *said*.
Faerie Queene.

Some obscure precedence, that hath tofore been
sain. *Shakspeare.*

Since thy outside looks so fair and warlike,
And that thy tongue some *say* of breeding breathes,
By rule of knighthood I disdain. *Id.*

I thank thee, Brutus,
That thou hast proved Lucilius's *saying* true. *Id.*

The council-table and star-chamber hold, as Thucydides *said* of the Athenians, for honourable that which pleased, and for just that which profited.

Many are the *sayings* of the wise,
Extolling patience as the truest fortitude. *Milton.*

Say first what cause
Moved our grand parents to fall off? *Id.*

King John succeeded his *said* brother in the kingdom of England and duchy of Normandy. *Hale.*

This gentleman having brought that earth to the publick *say* masters, and upon their being unable to

bring it to fusion, or make it fly away, he had procured a little of it, and with a peculiar flux separated a third part of pure gold.

Others try to divert the troubles of other men by pretty and plausible *sayings*, such as this, that if evils are long, they are but light.

After all can be *said* against a thing, this will still be true, that many things possibly are which we know not of.

The lion here has taken his right measures, that is to *say*, he has made a true judgment. *L'Estrange*.

We poetick folk, who must restrain Our measured *sayings* in an equal chain, Have troubles utterly unknown to those, Who let their fancy loose in rambling prose. *Prior*.

The sacred function can never be hurt by their *sayings*, if not first reproached by our doings.

And who more blest, who chained his country; *say*, Or he whose virtue sighed to lose a day?

He no sooner said out his *say*, but up rises a cunning snap.

Say, Stella, feel you no content, Reflecting on a life well spent?

Of some propositions it may be difficult to *say* whether they affirm or deny; as when we *say*, Plato was no fool.

SAY (Samuel), an English dissenting minister, was born in 1675. After acting as chaplain and preacher in Andover and Yarmouth, he was settled at Lowestofft for eighteen years. He next became colleague to the Rev. Samuel Baxter, at Ipswich, for nine years, and at last, in 1734, succeeded the celebrated Dr. Edmund Calamy at Westminster; where he died April 12th, 1743, aged sixty-eight. A volume of his poems was published in 4to., 1743, with two essays in prose, On the Harmony, Variety, and Power of Numbers; which have been much admired. These were published for the benefit of his daughter. He wrote several other tracts.

SAY, in commerce, a kind of serge much used abroad for linings, and by the religious for shirts; with us it is used for aprons by several sorts of artificers, being usually dyed green.

SAYANSKIE, a chain of mountains in Siberia, forming a prolongation of the Altai, and a line of separation between Siberia and Chinese Tartary. They extend between the Upper Yenisei and the lake Baikal, and consist chiefly of naked rocks of a red granite. They are divided into two ranges, one of which, bordering on the Yenisei, derives its name from that river, the other from the city of Krasnoiarisk.

SAYPAN, one of the Ladrone Islands, about twenty miles in circumference. According to some it does not afford the same refreshments to ships that touch there as Tinian, though Anson, by whom it was visited, says that it presents an aspect not in any respect less agreeable. Voyagers in general agree in giving Tinian the preference to Saypan, both in regard to extent and beauty. Long. 145° 55' E., lat. 15° 13' N.

SBIRRI, from Ital. *sbirri*, an archer, a name given to a class of armed police in Italy, resembling the French gens d'armes in every thing but their usefulness. They patrol with a large cocked hat, armed with a fusil, pistols, and invariably with a poniard. They are under the immediate command, and subject to the orders of, the different intendants or governors of provinces, and, in small towns, under those of the

magistrates. The *sbirri* are employed like our Bow Street officers, in taking up thieves and assassins, whom they are authorised to lodge in the different prisons, and at whose execution they must personally attend. These men are, in general, despised, and not much feared by the people; they are often accused of being in communication with the leaders of the various gangs of robbers and assassins that infest Italy, particularly the Appennine mountains.

SCAB, *n. s.* } Sax. ꝛæb; Ital. scabbia; SCABB'ED, *adj.* } Lat. scabies. An incrustation SCABB'Y, } formed over a sore; a disease of animals: the adjectives all follow the sense of the noun-substantive.

Her wrinkled skin, as rough as mapple rind, So *scabby* was, that it would have loathed all woman-kind.

What's the matter you dissentious rogues, That rubbing the poor itch of your opinion, Make yourselves *scabs*?

I would thou did'st itch from head to foot, and I had the scratching of thee, I would make thee the loathsomest *scab* in Greece.

The briar fruit make those that eat them *scabbed*.

That free from gouts thou may'st preserve thy care, And clear from *scabs* produced by freezing air.

To you such *scabb'd* harsh fruit is given, as raw Young soldiers at their exercising gnaw.

A *scabby* tetter on their pelts will stick. When the raw rain has pierced them to the quirk.

One of the usurers, a head man of the city, took it in dudgeon to be ranked, cheek by jowl, with a *scab* of a currier.

In the spring *scabious* eruptions upon the skin were epidemical, from the acidity of the blood.

This vap'ring *scab* must needs devise To ape the thunder of the skies.

If the grazier should bring me one wether fat and well fleeced, and expect the same price for a whole hundred, without giving me security to restore my money for those that were lean, shorn, or *scabby*, I would be none of his customer.

SCAB'BARD, *n. s.* Germ. *schap*—Junius; Goth. *skalpen*. The sheath of a sword.

Enter fortune's gate, Nor in thy *scabbard* sheath that famous blade, 'Till settled be thy kingdom and estate.

What eyes! how keen their glances! you do well to keep 'em veiled; they are too sharp to be trusted out o' th' *scabbard*.

SCABIOSA, scabious, in botany, a genus of the monogynia order and tetrandria class of plants, natural order forty-eighth, aggregate. Common *cal.* polyphyllous; proper, double superior; the receptacle paleaceous or naked. The most remarkable species are,—

1. *S. arvensis*, the meadow scabious, which grows naturally in many places of Britain. It has a strong, thick, fibrous root, sending out many branching stalks, which rise to the height of three feet. The lower leaves are sometimes almost entire, and at others they are cut into many segments almost to the midrib. The flowers are produced upon naked foot-stalks at the end of the branches; they are of a purple color, and have a faint odor.

2. *S. succisa*, or devil's bit, grows naturally in

woods and moist places. This has a short tap-root, the end of which appears as if it was bitten or cut off, whence the plant has its name. The leaves are open and spear-shaped, and smooth; the stalks are single, about two feet high, garnished with two leaves at each joint; they generally send out two short foot-stalks from their upper joint, standing opposite, which are terminated by purple flowers. Both these have been recommended as aperient, sudorific, and expectorant; but the present practice has no dependence on them.

SCA'BROUS, *adj.* Fr. *scabreux*; Lat. *scaber*. Rough; rugged; pointed on the surface; harsh.

Lucretius is *scabrous* and *rouga* in these; he seeks them, as some do Chaucerisms, which were better expunged. *Ben Jonson.*

Urine, black and bloody, is occasioned by something sharp or *scabrous* wounding the small blood-vessels; if the stone is smooth and well bedded, this may not happen. *Arbuthnot.*

SCABWORT. See SCABIOSA.

SCÆVOLA, in botany, a genus of the monogynia order and pentandria class of plants: cor. monopetalous; the tube slit longitudinally; the border quinquefid and lateral. The fruit is a plum inferior and monospermous; the nucleus bilocular. Species three, natives of India.

SCAFFOLD, *n. s.* } French *eschafaut*;
SCAF'FOLDAGE, } of Lat. *scabellum*. A
SCAF'FOLDING. } temporary stage or gallery

: particularly the stage erected for the execution of malefactors: the other two substantives are synonymous.

Fortune, smiling at her fortune therein, that a scaffold of execution should grow a scaffold of coronation. *Sydney.*

Pardon

The flat unraised spirit, that hath dared

On this unworthy scaffold to bring forth

So great an object. *Shakespeare. Henry V.*

A strutting player doth think it rich

To hear the wooden dialogue and sound,

'Twixt his stretch'd footing and the scaffoldage.

Shakespeare.

These outward beauties are but the props and

scaffolds

On which we built our love, which, now made perfect,

Stands without these supports. *Denham's Sophy.*

The throng

On banks and scaffolds under sky might stand.

Milton.

Send forth your lab'ring thought;

Let it return with empty notions fraught,

Of airy columns every moment broke,

Of circling whirlpools, and of spheres of smoke:

Yet this solution but once more affords

New change of terms and scaffolding of words.

Prior.

What are riches, empire, power,

But steps by which we climb to rise, and reach

Our wish? and, that obtained, down with the scaffold

folding

Of sceptres and of thrones.

Congreve.

Sickness, contributing no less than old age to the shaking down this scaffolding of the body, may dis-cover the inward structure. *Pope.*

Sylla added three hundred commons to the senate; then abolished the office of tribune, as being only a

scaffold to tyranny, whereof he had no further use. *Swift.*

SCAGLIOLA, in architecture, a kind of Italian composition in imitation of marble, variously colored according to the species the artist intends to represent. It is laid on brick in the manner of stucco, and worked off with iron tools, or formed by moulds into friezes, architectural borders, &c. This manufacture was introduced into this country by Mr. Coade, and is now carried on with great success.

SCALA (Bartolomeo), an eminent Italian writer, who flourished when literature was reviving in Europe. He was born about 1424, and was the only son of a miller; but, going early to Florence, Cosmo de Medicis gave him education. He studied the law; became LL.D., and frequented the bar. On Cosmo's death, in 1464, Peter de Medicis employed him in the service of the republic, in the most important negotiations. In 1471 he was made a citizen of Florence; in 1472 he was ennobled and made chancellor. In 1484 he was sent on an embassy to pope Innocent VIII., whom he pleased so well that the pope made him a Roman knight and senator. He published some of his orations, among which were the following:—1. Pro Imperatoriis militaribus signis dandis Constantio Sfortiæ imperatori; 1481; 2. Apologia contra vituperatores Florentiæ; 1496, folio; 3. De Historia Florentina; Libri iv. 4. Vita di Vitaliani Borromeo; Rome, 1677, 4to. He died in Florence in 1497.

SCALA NOVA, the old Neapolis, a well built sea-port town of Asia Minor, three leagues from the site of the ancient Ephesus. The fortifications are about three-quarters of a mile in circumference. To the north is a suburb, in which alone the Christians are permitted to dwell. The population is reckoned by Tournefort, at 1000 Turkish families, 600 Greek, ten Jew, and sixty Armenian. The town carries on a considerable trade in grain, coffee, and cloth, from Egypt, Smyrna, and Salonica. The neighbourhood yields a considerable quantity of wine. Forty miles south of Smyrna.

SCALADE, *n. s.* } Fr. *scalade*; Span. *scala*.
SCALA'DO. } *ladu*, from Latin *scala*, a

ladder. A storm given to a place by raising ladders against the walls.

What can be more strange than that we should within two months have won one town of importance by *scalado*, battered and assaulted another, and overthrown great forces in the field? *Bacon.*

Thou raisedst thy voice to record the stratagems, the arduous exploits, and the nocturnal *scalade* of needy heroes, the terror of your peaceful citizens.

Arbuthnot's History of John Bull.

SCALADO, or SCALADE, in the art of war, is an assault made on the wall or rampart of a city, or other fortified place, by means of ladders, without carrying on works in form, to secure the men.

SCALARY, *adj.* From Lat. *scala*. Proceeding by steps like those of a ladder.

He made at nearer distances certain elevated places and *scalary* ascents, that they might better ascend or mount their horses. *Brown*

SCALD, *v. a., n. s., & adj.* } Span. *escaldar* ;
 SCALD'HEAD, *n. s.* } Ital. *scaldare* ; of
 SCALL. } Lat. *calidus*. To
 burn with hot liquor : scurf on the head : paltry ;
 sorry : scurvy : scaldhead, a leprous disease of
 the head : scall is leprosy ; morbid baldness.

It is a dry *scall*, a leprosy upon the head.

Lea. xiii. 30.

Upon thy bald hede maist thou have the *scall*.

Chaucer.

Her head altogether bald,

Was overgrown with scuff and filthy *scald*.

Spenser.

O majesty !

When thou dost pinch, thy bearer, thou dost sit

Like a rich armour worn in heat of day

That *scalds* with safety. *Shakspeare. Henry IV.*

Saucy victors

Will catch at us like strumpets, and *scald* rhymers

Ballad us out o' tune. *Shakspeare.*

Here the blue flames of *scalding* brimstone fall,

Involving swiftly in one ruin all. *Cowley.*

That I grieve, 'tis true ;

But 'tis a grief of fury, not despair !

And, if a manly drop or two fall down,

It *scalds* along my cheeks, like the green wood,

That, sputt'ring in the flame, works outward into
 tears. *Dryden's Cleomenes.*

It depends not on his will to persuade himself,
 that what actually *scalds* him, feels cold. *Locke.*

In Oxfordshire the sour land they fallow when
 the sun is pretty high, which they call a *scalding*
 fallow. *Mortimer.*

Warm cataplasms discuss ; but *scalding* hot may
 comfort the tumour : heat, in general, doth not
 resolve and attenuate the juices of a human body ;
 for too great heat will produce concretions.

Arbuthnot on Aliments.

The serum is corrupted by the infection of the
 touch of a salt humour, to which the scab, pox, and
scaldhead are referable. *Floyer.*

The best thing we can do with Wood is to *scald*
 him ;

For which operation there's nothing more proper
 Than the liquor he deals in, his own melted copper.
Swift.

SCALD CREAM, sometimes also called clouted
 cream, a method of preparing cream for butter.
 Mr. Feltham gives the following account of it :—
 The purpose of making scald cream is for but-
 ter superior to any which can be procured from
 the usual raw cream, being preferable for flavor
 and keeping. As leaden cisterns would not
 answer for scalding cream, the dairies mostly
 adopt brass pans, which hold from three to five
 gallons of the milk ; and that which is put into
 those pans one morning stands till the next,
 when, without disturbing it, it is set over (on a
 trivet) a steady brisk wood fire, devoid of smoke,
 where it is to remain from seven to fifteen
 minutes, according to the size of the pan, or the
 quantity in it : the precise time for removing it
 from the fire must be particularly attended to,
 which is, when the surface begins to wrinkle or
 gather in a little, showing signs of boiling ;
 it is then instantly to be taken off, and placed
 in the dairy until the next morning, when the
 fine cream is thrown up, and may be taken for
 the table, or for butter, into which it is now
 soon converted by stirring it with the hand.
 Some know when to remove it from the fire by
 sounding the pan with the finger, it being then

less sonorous ; but this is only acquired by ex-
 perience. Dr. Hales observes that this method
 of preparing milk will take off the taste it
 sometimes acquires from the cows' feeding on
 turnips, cabbages, &c.

SCALDS, in the history of literature, a name
 given by the ancient inhabitants of the northern
 countries to their poets ; in whose writings their
 history is recorded. See BARDS.

SCALE, *n. s. & v. a.* Sax. *rcæle* ; Belg. *schæle* ;
 Island. *skal* ; Goth. *skal*. A balance ; the dish
 of a balance : hence the sign Libra : to measure ;
 compare.

If thou tak'st more

Or less than a just pound, if the *scale* turn

But in the estimation of a hair,

Thou diest. *Shakspeare. Merchant of Venice.*

Here's an equivocator, that could swear, in both
 the *scales*, against either *scale*. *Shakspeare.*

You have found,

Scaling his present bearing with his past,

That he's your fixed enemy. *Id. Coriolanus.*

The world's *scales* are even ; when the main

In one place gets, another quits again. *Cleveland.*

Juno pours out the urn, and Vulcan claims

The *scales*, as the just product of his flames.

Creech.

Long time in even *scale*

The battle hung. *Milton's Paradise Lost.*

The *scales* are turned, her kindness weighs no
 more

Now than my vows. *Waller.*

In full assemblies let the crowd prevail ;

I weigh no merit by the common *scale*,

The conscience is the test. *Dryden.*

If we consider the dignity of an intelligent being,
 and put that in the *scales* against brute inanimate mat-
 ter, we may affirm, without overvaluing human nature,
 that the soul of one virtuous and religious man is of
 greater worth and excellency than the sun and his
 planets. *Bentley's Sermons.*

Collect at evening what the day brought forth,

Compress the sum into its solid worth,

And, if it weigh the importance of a fly,

The *scales* are false, or algebra a lie. *Couper.*

SCALE, *n. s., v. a. & v. n.* } Fr. *escaille* ; Lat.

SCALED, *adj.* } *squama*. The la-

SCALY. } mina of a fish's

coat ; any thing exfoliated or disquamated : to
 strip of scales ; to pare off a surface : the adject-
 ives signify squamous ; having scales : to peel
 off in thin particles.

Raphael was sent to *scale* away the whiteness of
 Tobit's eyes. *Tob. iii. 17.*

Half my Egypt was submerged, and made

A cistern for *scaled* snakes.

Shakspeare. Antony and Cleopatra.

Those that cast their shell are the lobster and
 crab : the old skins are found, but the old shells
 never ; so as it is like they *scale* off, and crumble
 away by degrees. *Bacon.*

He puts him on a coat of mail,

Which was made of a fish's *scale*. *Drayton.*

Take jet and the *scales* of iron, and with a wet fea-
 ther, when the smith hath taken an heat, take up the
scales that fly from the iron, and those *scales* you
 should grind upon your painter's stone. *Peacham.*

The river horse and *scaly* crocodile. *Milton.*

Standing aloof, with lead they bruise the *scales*,

And tear the flesh of the incensed whales. *Waller.*

His awful summons they so soon obey ;

So hear the *scaly* herd when Proteus blows,

And so to pasture follow through the sea. *Dryden.*

If all the mountains were scaled, and the earth made even, the waters would not overflow its smooth surface.

Burnet.

A scaly fish with a forked tail. *Woodward.*

When a scale of bone is taken out of a wound, burning retards the separation. *Sharp's Surgery.*

SCALE, *n. s.* & *v. a.* Lat. *scala*. A ladder; means of ascent; the act of storming by ladders; regular gradation; series of musical or other degrees, or notes; any thing marked at equal distances: to climb by ladders; to mount.

Often have I scaled the craggy oak,

All to dislodge the raven of her nest:

How have I wearied, with many a stroke,

The stately walnut-tree, the while the rest

Under the tree fell all for nuts at strife! *Spenser.*

They assailed the breach, and others with their scaling ladders scaled the walls.

Knolles's History of the Turks.

They take the flower o' the Nile

By certain scale i' the pyramid: they know

By the height, the lowness, or the mean, if death

Or foizon follow.

Shakspeare. Antony and Cleopatra.

Love refines

The thought, and heart enlarges; hath his seat

In reason, and is judicious; is the scale

By which to heavenly love thou mayest ascend.

Milton.

Others to a city strong

Lay siege, encamped; by battery, scale, and mine Assaulting. *Id. Paradise Lost.*

The map of London was set out in the year 1658, by Mr. Newcourt, drawn by a scale of yards.

Graunt.

Heaven with these engines had been scaled,

When mountains heaped on mountains failed.

Waller.

The bent of his thoughts and reasonings run up and down this scale, that no people can be happy but under good governments. *Temple.*

When the bold Typhæus scaled the sky,

And forced great Jove from his own heaven to fly,

The lesser gods all suffered. *Dryden.*

The scale of the creatures is a matter of high speculation. *Grew.*

On the bendings of these mountains the mark of several ancient scales of stairs may be seen, by which they used to ascend them. *Addison on Italy.*

We believe an invisible world, and a scale of spiritual beings, all nobler than ourselves.

Bentley's Sermons.

All the integral parts of nature have a beautiful analogy to one author, and to their mighty original, whose images are more or less expressive, according to their several gradations in the scale of beings.

Cheyne's Philosophical Principles.

Far as creation's ample range extends,

The scale of sensual mental powers ascends. *Pope.*

SCALE, a mathematical instrument consisting of several lines drawn on wood, brass, silver, &c., and variously divided according to the purposes it is intended to serve; whence it acquires various denominations, as the plain scale, diagonal scale, plotting scale, &c.

SCALE, in architecture and geography, a line divided into equal parts, placed at the bottom of a map or draught, to serve as a common measure to all the parts of the building, or all the distances and places of the map.

SCALE, in music, sometimes denominated a gamut, a diagram, a series, an order, a diapason. It consists of the regular gradations of sound,

by which a composer or performer whether rising or descending may pass from any given tune to another. These gradations are seven. When this order is repeated, the first note of the second is consentaneous with the lowest note of the first; the second of the former with the second of the latter; and so through the whole octave. The second order, therefore, is justly esteemed only a repetition of the first. For this reason the scale among the moderns is sometimes limited to an octave; at other times extended to the compass of any particular voice or instrument. It likewise frequently includes all the practical gradations of musical sound, or the whole number of octaves employed in composition or execution, arranged in their natural order. See *MUSIC*.

SCALIGER (Julius Cæsar), a learned critic, born at the castle of Ripa, in the Veronese, in 1484; and said by himself to have been descended from the ancient princes of Verona. He learned the Latin tongue in his own country; and in his twelfth year was presented to the emperor Maximilian, who made him one of his pages. He served that emperor seventeen years, and gave signal proofs of his valor and conduct in several expeditions. He was present at the battle of Ravenna in April 1512, in which he lost his father Benedict Scaliger, and his brother Titus; on which his mother died with grief; when, being reduced to necessitous circumstances, he entered into the order of the Franciscans, and applied himself to study at Bologna; but soon after took arms again, and served in Piedmont. At which time a physician persuaded him to study physic, which he did at his leisure hours, and also learned Greek; and at last the gout determined him, at forty years of age, to abandon a military life. He soon after settled at Agen, where he was naturalised in 1528, married, and applied himself seriously to his studies. He learned first the French tongue; and then made himself master of the Gascon, Italian, Spanish, German, Hungarian, and Sclavonian. Meanwhile he supported his family by the practice of physic. He did not publish any of his works till he was forty-seven years of age; when he soon gained a name in the republic of letters. He had a graceful person, and a strong memory. He died of a retention of urine in 1558. He wrote in Latin, 1. A Treatise on the Art of Poetry. 2. Exercitations against Cardan: which works are much esteemed. 3. Commentaries on Aristotle's History of Animals, and on Theophrastus on Plants. 4. Some Treatises on Physic. 5. Letters, Orations, Poems, and other works in Latin.

SCALIGER (Joseph Justus), one of the most learned critics and writers of his time; the son of the above, was born at Agen, in France, in 1540. He studied in the college of Bourdeaux, after which his father employed him in transcribing his poems; by which he obtained such a taste for poetry that before he was seventeen years old he wrote a tragedy upon the subject of Oedipus. He went to Paris in 1559, with a design to apply himself to the Greek language. For this purpose he for two months attended the lectures of Turnebus; and afterwards shut him-

self up, and by constant application for two years gained a perfect knowledge of that language; after which he applied to the Hebrew, which he learned by himself with great facility. He made no less progress in the sciences; and his writings procured him the reputation of one of the greatest men of the age. He embraced the reformed religion at twenty-two years of age. In 1563 he attached himself to Lewis Castaignier de la Roch Pazay, whom he attended in several journeys; and in 1593 was offered the place of honorary professor of the university of Leyden, which he accepted. He died of a dropsy in that city in 1609. He was a man of great temperance; and was never married. He published many works, the principal of which are, 1. Notes on Seneca's Tragedies, on Varro, Ausonius, Pompeius Festus, &c. 2. Latin Poems. 3. A Treatise de Emendatione Temporum. 4. Eusebius's Chronicle with Notes. 5. Canones Isagogici; and many other works. The collections entitled Scaligeriana were collected from his conversations by one of his friends; and, being ranged into alphabetical order, were published by Isaac Vossius.

SCALLOP, *n. s.* Fr. *escalop*. A fish with a hollow pectinated shell.

So the emperor Caligula,
That triumphed o'er the British sea,
Engaged his legions in fierce bustles
With periwinkles, prawns, and muscles,
And led his troops with furious gallops,
To charge whole regiments of scallops. *Hudibras.*

The sand is in Scilly glistering, which may be occasioned from freestone mingled with white scallop shells. *Mortimer.*

SCALLOP, in ichthyology. See **PECTEN**. In the Highlands of Scotland, the great scallop shell is made use of for the skimming of milk. In old times it had a more honorable place; being admitted into the halls of heroes, and was the cup of their festivity when the tribe assembled in the hall of their chieftain.

SCALMARTIN ROCKS, rocks of Ireland, on the coast of Down county, Ulster, in the harbour of Donaghadee. Though they are so smooth that vessels seldom suffer on them, yet in high tides and storms they are dangerous.

SCALP, *n. s.* & *v. a.* Belg. *schelpe*, a shell; Ital. *scalpo*. The skull or cranium; to take off the scalp.

High brandishing his bright dew-burning blade,
Upon his crested scalp so sore did smite,
That to the scull a yawning wound it made.

Faerie Queene.

White beards have armed their thin and hairless
scalps,

Against thy majesty. *Shakspeare. Richard. II.*

The hairy scalps

Are whirled aloof, while numerous trunks bestrow
The ensanguined field. *Phillips.*

If the fracture be not complicated with a wound of the scalp, or the wound is too small to admit of the operation, the fracture must be laid bare by taking away a large piece of the scalp.

Sharp's Surgery.

We seldom inquire for a fracture of the skull by *scalping*, but that the scalp itself is contused.

Sharp.

SCALPA, one of the Western Islands of Scotland, lying in the sound between the Isle of

Sky and Pomona, about five miles long and from two to three broad. It is barren and rocky. In the highest part of it, is a rock of petrified moss, in which are a variety of shells; and great quantities of shells are found several feet under ground. It lies one mile east of Sky.

SCALPA FLOW, a large expanse of water among the Orkney Islands, resembling a small sea, about fifty miles in circumference; surrounded by twelve islands, through which are several outlets to the Pentland Frith, Atlantic and German Oceans. During war it is a great thoroughfare for vessels coming north; and abounds with safe harbours and road-steads for vessels of the largest size. The chief entrance from the west is through Hoy-mouth, and from the east through Holme Sound. The tide at its entrance into Scalpa Flow is remarkably rapid, but soon subsides.

A **SCALPEL** is a kind of knife used in anatomical dissections and operations in surgery.

SCALPING, in military history, a barbarous custom practised by the American Indians, of taking off the tops of the scalps of their enemies' skulls with their hair on. They preserve them as trophies of their victories, and are rewarded by their chiefs according to the number of scalps they bring in.

SCAMANDER, or **SCAMANDROS**, a celebrated river of Troas, rising at the east end of Mount Ida, and running into the sea below Sigæum. Homer says it was called Xanthus by the gods. The goddesses Juno, Minerva, and Venus, are fabled to have bathed in it, previous to their appearing before Paris, in the contest for the golden apple. The Simois runs into it. It was a custom among the Phrygian brides to bathe themselves before marriage in this river. But this superstitious ceremony was abrogated, in consequence of Cimon an Athenian's having assumed the disguise of a river god, and deflowering Callirhoe, a noble virgin, at that time betrothed. 'The origin of this river,' says Dr. Clarke, 'is not like the source of ordinary streams, obscure and uncertain; of doubtful locality and indeterminate character; ascertained with difficulty, among various petty subdivisions in swampy places, or amidst insignificant rivulets, falling from different parts of the same mountain, and equally tributary; it bursts at once from the dark womb of its parent, in all the greatness of the divine origin assigned to it by Homer. Our ascent, as we drew near to the source of the river, became steep and stony. Lofty summits towered above us, in the greatest style of Alpine grandeur; the torrent, in its rugged bed below, all the while foaming upon our left. Presently we entered one of the sublimest natural amphitheatres the eye ever beheld; and here the guides desired us to alight. The noise of waters silenced every other sound. Huge craggy rocks rose perpendicularly to an immense height; whose sides and fissures to the very clouds, concealing their tops, were covered with pines, growing in every possible direction, among a variety of evergreen shrubs, wild sage, hanging ivy, moss, and creeping herbage. Enormous plane-trees waved their vast branches above the torrent. As we approached its deep gulf, we beheld several cas-

cedes all of foam, pouring impetuously from chasms in the naked face of a perpendicular rock. It is said the same magnificent cataract continues during all seasons of the year, wholly unaffected by the casualties of rain or melting snow.

SCAMANDER, in fabulous history, the son of Corybas and Demodice, who brought a colony from Crete into Phrygia, and settled at the foot of Mount Ida, where he established the festivals of Cybele. Being afterwards drowned in the Xanthus, the river was named after him. He was succeeded by his son Teucer: Diod. 4.

SCAMBLE, *v. n.* Ital. *scambilare*, from Lat. *scambus*. To be turbulent or rapacious; to scramble.

Have fresh chaff in the bin,
And somewhat to *scamble* for hog and for hen.

Tusser.

Scambling, out facing, fashion-mongering boys
That lie, and cog, and flout, deprave and slander.

Shakespeare.

He was no sooner entered into the town but a *scambling* soldier clapt hold of his bridle, which he thought was in a begging or a drunken fashion.

Wotton.

Some *scambling* shifts may be made without them.

More.

My wood was cut in patches, and other parts of it *scambled*, and cut before it was at its growth.

Mortimer.

SCAMMONIATE, *adj.* From scammony. Made with scammony, a resinous juice.

It may be excited by a local *scammoniate*, or other acrimonious medicines.

Wiseman's Surgery.

SCAMMONY, a resinous gum, brought into this country from Aleppo, in light spongy masses, easily friable, of a shining ash-color verging to black; when powdered of a light gray or whitish color: an inferior sort is brought from Smyrna, in more compact ponderous pieces, of a darker color, and full of sand and other impurities. This juice is chiefly of the resinous kind; proof spirit totally dissolves it, the impurities only being left. It has a faint unpleasant smell, and a bitterish, somewhat acrimonious taste. Scammony is an efficacious and strong purgative. Some have condemned it as unsafe, and laid sundry ill qualities to its charge; the principal of which is, that its operation is uncertain, a full dose proving sometimes ineffectual, whilst at others a much smaller one occasions dangerous hypercatharses. This difference is owing to the different circumstances of the patient, and not to any ill quality or irregularity of operation of the medicine: where the intestines are lined with an excessive load of mucus, the scammony passes without exerting itself upon them; where the natural mucus is deficient, a small dose of this or any other resinous cathartic irritates and inflames. Many have endeavoured to abate the force of this drug, and correct its imaginary virulence, by exposing it to the fume of sulphur, dissolving it in acid juices, &c.; but this can only destroy a part of the medicine, without altering the rest. Scammony in substance, judiciously managed, needs no corrector: if triturated with sugar or almonds, it becomes sufficiently safe and mild. It may likewise be dissolved by trituration in a strong decoction of

liquorice, and then poured off from the fæces; the college of Wirtemberg assures us that by this treatment it becomes mildly purgative, without any inconveniences; and that it also proves inoffensive to the palate. The common dose is from three to ten grains. According to the analysis of Vogel, Scammony consists of

	Aleppo.	Smyrna.
Resin	60	29
Gum	3	8
Extractive	2	5
Vegetable debris and } earth }	35	58
	100	100

SCAMOZZI (Vincent), a celebrated Italian architect and writer, born at Vicenza in 1552. He travelled through most parts of Europe, and was much employed in the chief cities of Italy. He wrote a celebrated work, entitled *Idea della Architettura Universale*, 2 vols. folio, Venice, 1615. He died at Venice in 1616, aged sixty-four.

SCAMPER, *v. n.* Goth. *skampa*; Ital. *scampare*. To fly with speed or trepidation.

A fox seized upon the fawn, and fairly *scampered* away with him.

L'Estrange.

Be quick, nay, very quick, or he'll approach,
And, as you're *scampering*, stop yon in your coach.

King.

You will suddenly take a resolution, in your cabinet of Highlanders, to *scamper* off with your new crown.

Addison.

Close behind his heel
Now creeps he slow; and now, with many a frisk
Wide-*scampering*, snatches up the drifted snow
With ivory teeth, or ploughs it with his snout;
Then shakes his powdered coat, and barks for joy.

Cowper.

SCAN, *v. a.* Fr. *scandre*; Lat. *scando*. To examine a verse by counting the feet: examine nicely or formally.

So he goes to heaven,
And so am I revenged: that would be *scanned*.

Shakespeare. Hamlet.

The rest the great architect
Did wisely to conceal; and not divulge
His secrets to be *scanned* by them, who ought
Rather admire.

Milton's Paradise Lost

They *scan* their verses upon their fingers. *Walsh.*
Sir Roger exposing his palm, they crumbled it into all shapes, and diligently *scanned* every wrinkle that could be made in it.

Addison.

Every man has guilt, which he desires should not be rigorously *scanned*; and therefore, by the rule of charity and justice, ought not to do that which he should not suffer.

Government of the Tongue.

One moment and one thought might let him *scan*
The various turns of life, and fickle state of man.

Prior.

The actions of men in high stations are all conspicuous, and liable to be *scanned* and sifted.

Atterbury.

At the final reckoning, when all men's actions shall be *scanned* and judged, the great King shall pass his sentence, according to the good men have done, or neglected to do

Calamy.

SCANDAL, *n. s. & v. a.* Fr. *scandale*; Lat. *scandalum*; Greek *σκανδαλον*. Op-
 SCAN'DALIZE, *v. a.* }
 SCAN'DALOUS, *adj.* }
 SCAN'DALOUSLY, *adv.* }
 SCAN'DALOUSNESS, *n. s.* }
 probrium; offence given by the faults of others; aspersion; calumny: to charge falsely; reproach: this is also sometimes the sense of scandalize; at others it means to offend by some supposed crime: the adjective, adverb, and noun-substantive follow the senses of scandal.

I demand who they are whom we scandalize by using harmless things! Among ourselves that agree in this use, no man will say that one of us is offensive and scandalous unto another. *Hooker.*

Nothing scandalous or offensive unto any, especially unto the church of God: all things in order, and with seemliness. *Id.*

If black scandal, or foul-faced reproach, Attend the sequel of your imposition,
 Your mere enforcement shall acquittance me
 From all the impure blots and stains thereof.
Shakspeare. Richard III.

I do fawn on men, and hug them hard,
 And after scandal them. *Id. Julius Cæsar.*

Something savouring
 Of tyranny, which will ignoble make you,
 Yea, scandalous to the world. *Id. Winter's Tale.*
 Thou do'st appear to scandalize
 The publick right and common cause of kings.

Daniel.
 It had the excuse of some bashfulness, and care not to scandalize others. *Hammond on Fundamentals.*

Whoever considers the injustice of some ministers, in those intervals of parliament, will not be scandalized at the warmth and vivacity of those meetings. *Clarendon.*

His lustful orgies he enlarged
 Even to the hill of scandal, by the grove
 Of Moloch homicide. *Milton's Paradise Lost.*

My known virtue is from scandal free,
 And leaves no shadow for your calumny. *Dryden.*

Many were scandalized at the personal slander and reflection flung out by scandalizing libellers. *Addison.*

In the case of scandal, we are to reflect how men ought to judge. *Rogers's Sermons.*

You know the scandalous meanness of that proceeding, which was used. *Pope.*

Shun their fault, who, scandalously nice,
 Will needs mistake an author into vice. *Id.*

His discourse at table was scandalously unbecoming the dignity of his station; noise, brutality, and obscenity. *Swift.*

SCANDALUM MAGNATUM, in law, is a defamatory speech or writing, to the injury of a person of rank; for which a writ, that bears this name, is granted for the recovery of damages.

SCANDERBEG, the surname of George Castriot, king of Albania, a province of Turkey in Europe. He was delivered up with his three elder brothers as hostages, by their father, to Amurath II., sultan of the Turks, who poisoned his brothers, but spared him on account of his youth, being likewise pleased with his juvenile wit and handsome person. In a short time he became one of the most renowned generals of the age; and, revolting from Amurath, he joined Hunniades, a most formidable enemy of the Turks. He defeated the sultan's army, took Amurath's secretary prisoner, obliged him to sign and seal an order to the governor of Croia, the capital of Albania, to deliver up the citadel and city to the

bearer of that order, in the name of the sultan. With this forced order he repaired to Croia; and recovered the throne of his ancestors, and maintained the independency of his country against the numerous armies of Amurath and his successor Mohammed II., who was obliged to make peace with him in 1461. He then went to the assistance of Ferdinand of Arragon, at the request of pope Pius II., and by his assistance Ferdinand gained a complete victory over his enemy the count of Anjou. Scanderbeg died in 1467.

SCANDINAVIA, a general name for the countries of Norway, Sweden, and Denmark. The inhabitants of these countries, in former times, were excessively addicted to war. From their earliest years they applied themselves to the military art, and accustomed themselves to cold, fatigue, and hunger. Even the very sports of youth and childhood were dangerous. They consisted in taking frightful leaps, climbing up the steepest rocks, fighting naked with offensive weapons, wrestling with the utmost fury; so that it was usual to see them terrible in the combat at the age of fifteen. At this early age the young men became their own masters; when they received a sword, a buckler, and a lance. This ceremony was performed at some public meeting. One of the principal men of the assembly named the youth in public; after which he was obliged to provide for his own subsistence, and was either now to live by hunting, or by joining in some incursion against the enemy. Great care was taken to prevent the young men from too early connexions with the female sex; and indeed they could have no hope to gain the affection of the fair, but in proportion to the courage and address they had shown in their military exercises. Accordingly, in an ancient song, we find Bartholin, king of Norway, extremely surprised that his mistress should prove unkind, as he could perform eight different exercises. The children were generally born in camps; and, being injured from their infancy to behold nothing but arms, effusion of blood, and slaughter, they imbibed the cruel disposition of their fathers; and, when they broke forth upon other nations, behaved rather like furies than human creatures. The laws of this people, in some measure, resembled those of the ancient Lacedæmonians. They knew no virtue but bravery, and no vice but cowardice. The greatest penalties were inflicted on such as fled from battle. The laws of the ancient Danes declared such persons infamous, and excluded them from society. Among the Germans, cowards were sometimes suffocated in mud; after which they were covered over with hurdles, to show, says Tacitus, that though the punishment of crimes should be public, there are certain degrees of cowardice and infamy which ought to be buried in oblivion. Frotho king of Denmark enacted, by law, that whoever solicited an eminent post, ought upon all occasions to attack one enemy, to face two, to retire only one step back from three, and never to make an actual retreat till assaulted by four. The rules of justice were adapted and warped to these prejudices. War was looked upon as a real act of justice, and force was thought to be an incon-

testable title over the weak, and a visible mark that God had intended them to be subject to the strong. Lastly, their religion, by annexing eternal happiness to the military virtues, gave the utmost possible degree of vigor to that propensity which these people had for war, and to their contempt of death, of which many instances are recorded. Harold, surnamed Blaataand, or Blue-tooth, a king of Denmark, who lived in the beginning of the ninth century, had founded on the coasts of Pomerania a city named Julin or Jomsburg. In this colony it was forbidden to mention the word fear, even in the most imminent dangers. No citizen of Jomsburg was to yield to any number of enemies, however great. The sight of inevitable death was not to be an excuse for showing the smallest apprehension. Neither was this intrepidity peculiar to the inhabitants of Jomsburg; it was the general character of all the Scandinavians. To die with his arms in his hand was the ardent wish of every free man; and the high idea which they had of this kind of death led them to dread such as proceeded from old age and disease. The warriors who found themselves lingering in disease, often availed themselves of their few remaining moments to shake off life, by a way that they supposed to be more glorious. Some of them would be carried into a field of battle that they might die in the engagement; others slew themselves. Many procured this melancholy service to be performed by their friends, who considered it as a most sacred duty.

SCANDIX, shepherd's needle, or Venus comb, in botany, a genus of the digynia order, and pentandria class of plants; natural order forty-fifth, umbellatæ: cor. radiating; the fruit subulated; the petals emarginated; the florets of the disc frequently male. The most remarkable species is the

S. odorata, with angular furrowed seeds. It is a native of Germany, and has a very thick perennial root, composed of many fibres of a sweet aromatic taste, like aniseed, from which come forth many large leaves that branch out somewhat like those of fern, whence it is named sweet fern. The stalks grow four or five feet high, are fistulous and hairy; the flowers are disposed in an umbel at the top of the stalk, are of a white color, and have a sweet aromatic scent. This species is easily propagated by seeds, which, if permitted to scatter, will supply an abundance of young plants, that may be put into any part of the garden, and require no care.

SCANIA, or SCHONEN, a province of South Gothland, Sweden, bounded on the south by the Baltic, and on the west by the Sound. The latter separates it from Denmark. Its length from north to south is above sixty-five miles, its breadth from east to west above fifty. It comprises the most pleasant, as well as most fertile, country in Sweden; and consists of gentle eminences, which, in the interior, are covered with wood, and of fertile plains and valleys, producing abundance of corn and pasturage. Cattle and horses are considerably larger here than in the northern provinces of Sweden. The principal mineral products are alum, sulphur, coal, chalk, and lead. The inhabitants also export oak tim-

ber, hemp, and cordage, as well as horses, sheep, and cattle. The fisheries are productive. Scania was in remote ages independent; it was afterwards in the possession of Denmark, but was ceded to Sweden, along with the adjoining provinces of Blekingen and Halland, at the peace of Roschild, in 1658. The Danes attempted to re-conquer it after the adventures of Charles XII.; but an army of 50,000 peasants baffled their attempts. It is now divided into the provinces or lœns of Christianstadt and Malmöhus. Population 260,000.

SCANNING, in poetry, the measuring of verse by feet, in order to see whether or not the quantities be duly observed. Thus an hexameter verse is scanned by resolving it into six feet; a pentameter, by resolving it into five feet, &c.

SCANT, *v. a., adj., & adv.* } Sax. *gerceanan*,
 SCANTY, *adj.* } to break; Goth.
 SCANTILY, *adv.* } *skamt*. To limit;
 SCANTINESS, *n. s.* } straiten: the ad-
 SCANTLET, } jective signifies
 SCANTLING, } scarce; limited:
 SCANTLY, *adv.* } hence not liberal;
 SCANTNESS, *n. s.* } wary: as an ad-
 verb (obsolete), scarcely; hardly: scanty is narrow; confined; small: hence poor; not copious or full; sparing: the adverb and noun-substantive corresponding: scantlet and scantling signify a small piece or pattern; a small or given quantity: scantily is synonymous with scant, adverb, and scantness with scantiness.

You think
 I will your serious and great business scant,
 For she is with me. *Shakspeare. Othello.*
 From this time,
 Be somewhat scanter of your maiden presence. *Shakspeare.*

He spoke
 Scantily of me, when perforce he could not
 But pay me terms of honour. *Id.*
 The success,
 Although particular, shall give a scantling
 Of good or bad into the general. *Id.*

The people, beside their travail, charge, and long attendance, received of the bankers scant twenty shillings for thirty. *Camden's Remains.*

England, in the opinion of the popes, was preferred, because it contained in the ecclesiastical division two large provinces, which had their several legati nati; whereas France had scantily one. *Id.*

They need rather to be scanted in their nourishments than replenished to have them sweet.

Bacon's Natural History.
 White is a penurious colour, and where moisture is scant: so blue violets, and other flowers, if they be starved, turn pale and white. *Bacon.*

He was a man fierce, and of no evil disposition, saving that he thought scantiness of estate too great an evil. *Hayward.*

A single violet transplant:
 The strength, the colour, and the size,
 All which before was poor and scant,
 Redoubles still and multiplies. *Donne.*
 A wild pamphlet, beside other malignities, would scant allow him to be a gentleman. *Wotton.*

We scant read in any writer, that there have been seen any people upon the south coast.

Abbot's Description of the World.
 Reduce desires to narrow scantlings and small proportions. *Taylor's Rule of Holy Living.*

To find out that,

In such a scant allowance of star-light,
Would over task the best land-pilot's art. *Milton.*

While the world was but thin, the ages of mankind were longer; and, as the world grew fuller, so their lives were successively reduced to a shorter *scantlet*, till they came to that time of life which they now have. *Hale.*

Looking on things through the wrong end of the perspective, which *scants* their dimensions, we neglect and contemn them. *Glanville's Scepstis.*

Did we but compare the miserable *scantness* of our capacities with the vast profundity of things, truth and modesty would teach us wary language. *Id.*

I am *scanted* in the pleasure of dwelling on your actions. *Dryden.*

Virgil has sometimes two of them in a line; but the *scantiness* of our heroic verse is not capable of receiving more than one. *Id.*

A *scantling* of wit lay gasping for life, and groaning beneath a heap of rubbish. *Id.*

My eager love, I'll give myself the lye;

The very hope is a full happiness,
Yet *scantly* measures what I shall possess. *Id.*

'Tis hard to find out a woman that's of a just *scantling* for her age, hnmour, and fortune, to make a wife of. *L'Estrange.*

In this narrow *scantling* of capacity, we enjoy but one pleasure at once. *Locke.*

As long as one can increase the number, he will think the idea he hath a little too *scanty* for positive infinity. *Id.*

Their language being *scanty* and accommodated only to the few necessities of a needy simple life, had no words in it to stand for a thousand. *Id.*

Alexander was much troubled at the *scantiness* of nature itself, that there were no more worlds for him to disturb. *South.*

There remained few marks of the old tradition, so they had narrow and *scanty* conceptions of Providence. *Woodward.*

O'er yonder hill does *scant* the dawn appear. *Gay.*

Now *scantier* limits the proud arch confine,
And scarce are seen the prostrate Nile and Rhine:
A small Euphrates through the piece is rolled
And little eagles wave their wings in gold. *Pope.*

They with such *scanty* wages pay
The bondage and the slavery of years. *Swift.*

In illustrating a point of difficulty, be not too *scanty* of words, but rather become copious in your language. *Watts.*

A. Patriots, alas! the few that can be found,
Where most they flourish upon English ground,
The country's need have *scantly* supplied,
And the last left the scene when Chatham died. *Cowper.*

SCAPE, *v. a., v. n., & n. s.* Contracted from escape. To miss; avoid; shun; not to incur; to fly; get away: an escape.

What, have I *scaped* love-letters in the holyday time of my beauty, and am I now a subject for them? *Shakspeare.*

I spoke of most disastrous chances,
Of hair-breadth *scapes* in the imminent deadly breach. *Id.*

No natural exhalation in the sky,
No *scape* of nature, no distempered day,
But they will pluck away its natural cause,
And call them meteors, prodigies, and signs. *Id.*

Having purposed falsehood, you
Can have no way but falsehood to be true!
Vain lunatick, against these *scapes* I could
Dispute, and conquer, if I would. *Donne.*

What can 'scape the eye
Of God all-seeing?

Thou lurk'st

Milton.

In valley or green meadow, to way-lay
Some beauty rare, Calisto, Clymene;
Too long thou laid'st thy *scapes* on names adored. *Id.*

Could they not fall unply'd on the plain,
But slain revive, and, taken, *scape* again? *Dryden.*

SCAPE-GOAT, in Jewish antiquity, the goat which was set at liberty on the day of solemn expiation. For the ceremonies on this occasion, see Levit. xvi. 5, 6, &c. Some say that a piece of scarlet cloth, in form of a tongue, was tied on the forehead of the scape-goat.—Hoff. Lex. Univ. in voc. Lingua. Many have been the disputes among the interpreters concerning the meaning of the word scape-goat; or rather of Azazel, for which scape-goat is put in our version of the Bible. Spencer believes Azazel to be a proper name, viz. that of the evil spirit, to which he conceives the goat to have been devoted. He observes that the ancient Jews used to substitute the name Samael for Azazel; and many of them have ventured to affirm that at the feast of expiation they were obliged to offer a gift to Samael to obtain his favor. Thus also the goat, sent into the wilderness to Azazel, was understood to be a gift or oblation. Some Christians have been of the same opinion. But Spencer thinks that the genuine reasons of the ceremony were, 1. That the goat, loaded with the sins of the people, and sent to Azazel, might be a symbolical representation of the miserable condition of sinners. 2. God sent the goat thus loaded to the evil dæmons, to show that they were impure, thereby to deter the people from any conversation or familiarity with them. 3. That the goat sent to Azazel, sufficiently expiating all evils, the Israelites might the more willingly abstain from the expiatory sacrifices of the Gentiles. Le Clerc is of opinion that Azazel was the name of a place, either a mountain or a cliff, at which the goat waited, and thence, as the rabbins say, was cast down and slain. But the most common opinion is, that Azazel is a name given to the goat itself, on account of its being let go, as being derived from *gnez* or *az*, goat, and *lil* azel, he hath gone away. Thus it was understood by our translators, who render it scape-goat; the Septuagint likewise render it *αποπομ-αιος*, and the Vulgate emissarius.

SCAPEMENT, in clock and watch work, a general term for the method, whatever it may be, of communicating the impulse of the wheels to the pendulum or balance. The ordinary scapements consist of the swing-wheel and pallets only; but modern improvements have added other levers or detents, chiefly for the purposes of diminishing friction, or for detaching the pendulum from the pressure of the wheels during part of the time of its vibration. See WATCHES.

SCAPULA, *n. s.* Lat. *scapula*. The shoulder blade.

The heat went off from the parts, and spread up higher to the breast and *scapula*. *Wiseman.*

The humours dispersed through the branches of the axillary artery to the *scapular* branches.

The viscera were counterpoised with the weight of the *scapular* part. *Id. of Ulcers.*
Derham.

SCAPULA, in anatomy. See ANATOMY.

SCAPULA (John), the reputed author of a Greek lexicon, noted only for a gross act of literary fraud. Being employed by Henry Stephens as a corrector to his press, while he was publishing his *Thesaurus Linguae Græcæ*, Scapula extracted those words and explications which he reckoned most useful, comprised them in one volume, and published them as an original work, with his own name. The compilation and printing of the *Thesaurus* had cost Stephens immense labor and expense; but it was so much admired by those learned men to whom he had shown it, and seemed to be of such essential importance to the acquisition of the Greek language, that he reasonably hoped his labor would be rewarded by success, and the money he had expended would be repaid by a rapid and extensive sale. But, before his work came abroad, Scapula's abridgment appeared; which, from its size and price, was quickly purchased, while the *Thesaurus* itself lay neglected in the author's hands. The consequence was, a bankruptcy on the part of Stephens, while he who had occasioned it was enjoying the fruits of his treachery. Scapula's Lexicon was first printed in 1570, in 4to. It was afterwards enlarged and published in folio, and has gone through several editions. Its success is, however, not owing to its superior merit, but to its price and commodious size. Stephens charges the author with omitting many important articles. He accuses him of misunderstanding and perverting his meaning; and of tracing out absurd and trifling etymologies, which he himself had been careful to avoid. Doctor Busby would never permit his scholars at Westminster School to make use of Scapula's lexicon.

SCAPULAR, in anatomy, the name of two pairs of arteries, and as many veins.

SCAPULAR, or SCAPULARY, a part of the habit of several religious orders in the church of Rome, worn over the gown as a badge of peculiar veneration for the Blessed Virgin. It consists of two narrow slips or breadths of cloth covering the back and the breast, and hanging down to the feet. The devotees of the scapulary celebrate their festival on the 10th of July.

SCAR, *n. s. & v. a.* Fr. *escarre*; Gr. *σχαρα*. A mark made by a hurt; a cicatrix: to mark in this way.

Yet I'll not shed her blood,
Nor scar that whiter skin of her's than snow,
And smooth as monumental alabaster. *Shakspeare.*
Scratch thee but with a pin, and there remains
Some scar of it. *Id. As You Like It.*

The soft delicious air,
To heal the scars of these corrosive fires,
Shall breathe her balm. *Milton.*

It may be struck out of the omniscency of God,
and leave no scar nor blemish behind. *More.*

This earth had the beauty of youth and blooming nature,
and not a wrinkle, scar, or fracture on all its
body. *Burnet.*

In a hemorrhage from the lungs, sypticks are often
insignificant; and if they could operate upon the
affected part, so far as to make a scar, when that fell
off, the disease would return. *Arbuthnot on Diet.*

The boughs gave way, and did not tear
My limbs; and I found strength to bear
My wounds, already scarr'd with cold—
My bonds forbade to loose my hold. *Byron.*

SCARAB, *n. s.* Fr. *scarabée*; Lat. *scarabæus*. A beetle; an insect with sheathed wings.

A small *scarab* is bred in the very tips of elm-leaves: these leaves may be observed to be dry and dead, as also turgid, in which lieth a dirty, whitish, rough maggot, from which proceeds a beetle.

Derham's Physico-Theology.

SCARABÆUS, the beetle, in zoology, a genus of insects of the coleoptera order. The antennæ are of a clavated figure, and fissile longitudinally: the legs are frequently dentated. See ENTOMOLOGY. The wing-cases prevented the various injuries their real wings might sustain by rubbing or crushing against the sides of their abode. These, though they do not assist flight, yet keep the internal wings clean and even, and produce a loud buzzing noise when the animal rises in the air. The *scarabæus sacer* is very often found on Egyptian monuments. It is represented on the Isiac table; and is frequent among hieroglyphics: it passed as the symbol of immortality, and as the emblem of the sun. Another species was consecrated to Isis, and indicated the moon; its two horns resembling the crescent of that planet. According to Caylus, the Egyptians were in the constant habit of giving the shape of the *scarabæus* to their amulets or rings.

1. *S. capricornus*, the small gilded capricorn, is of a true gold color, but in some lights has a cast of green and purple. It is often found among reeds by the banks of rivers (Lister). A variety of this species; but which Lister makes a distinct species, called the yellow capricorn, has a large black spot on each of the cases of the wings. It is found among the dry hay in April.

2. *S. carnifex*, which the Americans call the tumble-dung, is all over of a dusky black, and, though not much larger than the common black beetle, is the strongest of the beetle kind. Their excellent smell directs them in flights to excrements, which they form into round balls or pellets, in the middle of which they lay an egg. These pellets, in September, they convey three feet deep in the earth, where they lie till the approach of spring, when the eggs are hatched and burst their nests, and the insects find their way out of the earth. They assist each other with indefatigable industry in rolling these globular pellets to the place where they are to be buried. This they perform with the tail foremost by shoving along the ball with their hind feet. They are always accompanied by other beetles of a larger size, and of a more elegant structure and color. The breast of this is covered with a shield of a crimson color, and shining like metal; the head is of the like color, mixed with green; and on the crown of the head stands a shining black horn, bending backwards. Hence these are called the kings of the beetles, though they partake of the same dirty drudgery with the rest.

3. *S. cerambyx*, the musk beetle, is one of the most beautiful of the English beetles. The male is much smaller than the female, and is of a mixed color of purple and gold; the female is more of a green color; the horns of the males also consist of longer joints; and in both sexes the horns hang over the back, and are longer

than the whole body. They are found among old willows, and often in the very wood. They are most numerous in July. They make a mournful sound when taken. See ENTOMOLOGY.

4. *S. Hercules*, the elephant beetle, is the largest of this kind hitherto known; and is found in North America, particularly in Guinea and Surinam, as well as about the river Orinoco.

SCAR'AMOUCH, *n. s.* Fr. *escaramouche*, A buffoon in motley dress.

It makes the solemnities of justice pageantry, and the bench reverend puppets, or *escaramouches* in scarlet. *Collier.*

SCARBOROUGH, a town of Yorkshire, in the North Riding, seated on a steep rock, almost inaccessible except towards the west. On the top of this rock is a large green plain, with two wells of fresh water springing out of the rock. The town is well built; the principal streets are spacious and well paved, and the houses in general have a handsome appearance. A fine range of buildings on the cliff, commands a charming view. There is a commodious quay, and one of the finest harbours in the kingdom; to which belong many ships employed in the coal trade, from Newcastle to London. The harbour is protected by vast piers, extending a considerable way into the sea. A barrack has been erected here, with a strong battery of eighteen-pounders to protect the shipping. Scarborough has an excellent hospital for the widows of poor seamen, maintained by a rate on vessels, and a small deduction from seamen's wages; also an asylum for aged and infirm persons; an amicable society for clothing and educating about seventy boys and girls; a Lancastrian school, and numerous other benevolent institutions. It is a town corporate, governed by two bailiffs, a recorder, two coroners, four chamberlains, and thirty-six common councilmen, and has sent two members to parliament since the reign of Edward I. who are elected by the corporation. It has been principally frequented on account of its mineral waters, called the Scarborough Spa. The spring was under the cliff, part of which fell down in 1737, and the water was lost; but, in clearing away the ruins to rebuild the wharf, it was recovered. These waters are chalybeate and purging. When they are poured out of one glass into another, they throw up a number of air bubbles; and if they are shaken for some time in a phial close stopped, and the phial be suddenly opened before the commotion ceases, they emit an elastic vapor, with an audible noise, which shows that they abound in carbonic acid gas. At the fountain they have a brisk, pungent, chalybeate taste; but they lose their chalybeate virtues by exposure and by keeping. A person resides at the spa during the season, and receives a subscription from each person, one-eighth of which goes to the water servers, &c., and the rest to the corporation. Assemblies and balls are held at Scarborough as at Tunbridge. See MINERAL WATERS.

SCARCE, *adj. & adv.* Ital. *scarso*; of Lat. SCARCE'LY, *adv.* } *carco*. Scanty; not
SCARCE'NESS, *n. s.* } plentiful; rare: scan-
SCAR'CITY. } tily; hardly; with

difficulty: this is also the sense of scarcely: scarceness and scarcity mean want, scantiness, smallness of quantity; rareness.

A thing which we so little hoped to see, that even they which beheld it *scarcely* believed their own senses. *Hooker.*

They that find fault with our store, should be least willing to reprove our *scarcity* of thanksgivings. *Id.*

When we our betters see bearing our woes,
We *scarcely* think our miseries our foes. *Shakespeare*
Scarcely and want shall shun you;

Ceres' blessing so is on you. *Id.*
You neither have enemies, nor can *scarce* have any. *Dryden.*

He *scarcely* knew him, striving to disown
His blotted form, and blushing to be known. *Id.*

Raphael writes thus concerning his Galatea:—
To paint a fair one, 'tis necessary for me to see many fair ones; but, because there is so great a *scarcity* of lovely women, I am constrained to make use of one certain idea, which I have formed in my fancy. *Id. Dufresnoy.*

A Swede will no more sell you his hemp for less silver, because you tell him silver is *scarcer* now in England, and therefore risen one-fifth in value, than a tradesman of London will sell his commodity cheaper to the Isle of Man, because money is *scarce* there. *Locke.*

Corn does not rise or fall by the differences of more or less plenty of money, but by the plenty and *scarcity* that God sends. *Id.*

Age, which unavoidably is but one remove from death, and consequently should have nothing about it but what looks like a decent preparation for it, *scarce* ever appears, of late days, but in the high mode, the flaunting garb, and utmost gaudery of youth. *South.*

The *scarcest* of all is a Pescennius Niger on a medallion well preserved. *Addison.*

In this grave age, when comedies are few,
We crave your patronage for one that's new,
And let the *scarce*ness recommend the fare. *Id.*

They drink very few liquors that have not lain in fresco, inasmuch that a *scarcity* of snow would raise a mutiny at Naples. *Id.*

Since the value of an advantage is enhanced by its *scarce*ness, it is hard not to give a man leave to love that most which is most serviceable. *Collier on Pride.*

SCARE, *v. a.* } Italian, *scorare*—Skinner;
SCARE'GROW, } Goth. *skoar*, fright—Thom-
SCARE'FIRE. } son. To frighten; terrify;
to strike with sudden fear: the compounds corresponding.

Thereat the *scarecrow* waxed wond'rous proud,
Through fortune of his first adventure fair,
And with big thundering voice reviled him loud. *Spenser.*

They have *scared* away two of my best sheep,
which, I fear, the wolf will sooner find than the master. *Shakespeare.*

We must not make a *scarecrow* of the law,
Setting it up to fear the birds of prey,
And let it keep one shape, 'till custom make it
Their perch, and not their terror. *Id.*

Many of those great guns, wanting powder and shot, stood but as cyphers and *scarecrows*. *Raleigh.*

Scarecrows are set up to keep birds from corn and fruit; and some report that the head of a wolf, whole, dried, and hanged up in a dove-house, will *scarce* away vermin. *Bacon.*

The wing of the Irish was so grievously either galled or *scared* therewith, that, being strangers.

and in a manner neutrals, they had neither good heart to go forward, nor good liking to stand still, nor good assurance to run away. *Hayward.*

The drum and trumpet, by their several sounds, serve for many kind of advertisements; and bells serve to proclaim a *scarefire*, and in some places water-breaches. *Holder.*

A *scarecrow* set to frighten fools away. *Dryden.*

Let wanton wives by death be *scar'd*:

But, to my comfort, I'm prepar'd. *Prior.*

One great reason why men's good purposes so often fail, is, that when they are devout, or *scarred*, they then in the general resolve to live religiously. *Calamy's Sermons.*

SCARF, *n. s.* & *v. a.* } Fr. *escharfe*. Any SCARF'SKIN. } thing that hangs loose upon the shoulders or dress: the epidermis.

The matrons flung their gloves, Ladies and maids their *scarfs* and handkerchiefs, Upon him as he passed. *Shakspeare. Coriolanus.*

Will you wear the garland about your neck, or under your arm like a lieutenant's *scarf*? *Shakspeare.*

My sea-gown *scarf* about me in the dark Groped I to find them out. *Id. Hamlet.*

How like a younker, or a prodigal The *scarfed* bark puts from her native bay, Hugg'd and embraced by the trumpet wind! *Id.*

Come, feeling night, *Scarf* up the tender eye of pitiful day. *Id.*

Iris there, with humid bow, Waters the' odorous banks, that blow Flowers of more mingled hew Than her purf'd *scarf* can shew. *Milton.*

Titian, in his triumph of Bacchus, having placed Ariadne on one of the borders of the picture, gave her a *scarf* of a vermilion colour upon a blue drapery. *Dryden.*

The ready nymphs receive the crying child; They swathed him with their *scarfs*. *Id.*

My learned correspondent writes a word in defence of large *scarves*. *Spectator.*

The *scarfskin*, being uppermost, is composed of several lays of small scales, which lie thicker according as it is thicker in one part of the body than another: between these the excretory ducts of the military glands of the true skin open. *Cheyne.*

Put on your hood and *scarf*, and take your pleasure. *Swift.*

SCARFING, a term in carpentry, by which is meant the joining of two beams of wood together to increase the length. See CARPENTRY.

SCARFSKIN. See ANATOMY.

SCARIFY, *v. a.* } Fr. *scarifier*; Latin SCARIFICATION, *n. s.* } *scarifico*. To let blood SCARIFIER. } by incisions of the skin: the act of doing so: the agent or instrument.

Hippocrates tells you, that, in applying of cups, the *scarification* ought to be made with crooked instruments. *Arbutnot.*

Washing the salts out of the eschar, and *scarifying* it, I dressed it. *Wiseman's Surgery.*

You quarter foul language upon me, without knowing whether I deserve to be cupped and *scarified* at this rate. *Spectator.*

SCARLET, *n. s.* & *adj.* Fr. *escarlute*; Ital. *scarlato*. A color compounded of red and yellow; cloth dyed with a scarlet color; of this color.

If we live thus tamely, To be thus jaded by a piece of *scarlet*, Farewell nobility. *Shakspeare. Henry VIII.*

I conjure thee, By her high forehead, and her *scarlet* lip. *Shakspeare.*

The Chinese, who are of an ill complexion, being olivaster, paint their cheeks *scarlet*. *Bacon.*

As a bull Amid' the circus roars; provoked from far By sight of *scarlet* and a sanguine war. *Dryden.*

The *scarlet* honour of your peaceful gown. *Id.*

Would it not be insufferable for a learned professor, and that which his *scarlet* would blush at, to have his authority of forty years standing in an instant overturned? *Locke.*

SCARLET (see DYEING), in painting in water colors, minium mixed with a little vermilion produces a good scarlet; but if a flower in a print is to be painted a scarlet color, the lights as well as the shades should be covered with minium, and the shaded parts finished with carmine, which will produce an admirable scarlet.

SCARLET is a beautiful bright red color given to cloth, either by a preparation of kermes, or more completely by the American cochineal. Professor Beckmann, in the second volume of his History of Inventions, has drawn the following conclusions:—1. That scarlet, or the kermes dye, was known in the east in the earliest ages, before Moses, and was a discovery of the Phœnicians in Palestine. 2. Tola was the ancient Phœnician name used by the Hebrews, and even by the Syrians; for it is employed by the Syrian translator, Isaiah, chap. i. ver. 18. Among the Jews, after their captivity, the Aramæan word *zehorti* was more common. 3. The Arabs received the name kermes, with the dye, from Armenia and Persia, where it was indigenous, and had been long known; and that name banished the old name in the east, as the name scarlet has in the west. About 1643 a Fleming named Kepler established the first dye-house for scarlet in England, at the village of Bow, near London; and on that account the color was called, at first, by the English, the Bow dye. In 1667 another Fleming, named Brewer, invited to England by king Charles II. with the promise of a large salary, brought this art to great perfection. There are three kinds of scarlet: one, called Venetian scarlet, dyed with hermes; another, dyed with cochineal; and the third with gum lac. The first of these is chiefly used for tapestry, and is remarkably permanent.

SCARLET FEVER. See MEDICINE.

SCARMAGE, or } For skirmish. Spen- SCARMOGE, *n. s.* } ser.

Such cruel game my *scarmages* disarms; Another war, and other weapons, I Do love, when Love does give his sweet alarms. *Spenser.*

SCARPANTO, or Kojé, the ancient Carpathos, an island in the Mediterranean, between Candia and Rhodes. It is for the most part rocky and mountainous, but contains several good harbours, iron mines, and quarries of marble. Long. 26° 50' E., lat. 35° 44' N.

SCARRON (Paul), a famous French burlesque writer, was the son of a counsellor in parliament,

and was born in Paris about the end of 1610, or beginning of 1611. His father marrying a second wife, he was compelled to assume the ecclesiastical habit. At the age of twenty-four he visited Italy, and after his return to Paris continued a life of reckless dissipation. But in 1638 while attending the carnival at Mens, of which place he was a canon, having dressed himself as a savage, his singular appearance excited the curiosity of the children of the town. They followed him in multitudes, and he was obliged to take shelter in a marsh, and this wet and cold situation produced a numbness which totally deprived him of the use of his limbs, which he never again recovered. He took up his residence in Paris, and the loss of his health was followed by the loss of his fortune, in a lawsuit with his step-mother; and mademoiselle de Hautefort, compassionating his misfortunes, procured for him an audience of the queen. The poet requested to have the title of valetudinarian to her majesty. The queen smiled, and Scarron considered the smile as the commission to his new office. Cardinal Mazarine gave him a pension of 500 crowns; but that minister having received disdainfully the dedication of his Typhon, the poet immediately wrote a Mazarinade, and the pension was withdrawn. He then attached himself to the prince of Condé, and celebrated his victories. He at length formed the extraordinary resolution of marrying, and was accordingly, in 1651, married to madame d'Aubigne (afterwards the celebrated madame de Maintenon), then only sixteen years of age. 'At that time,' says Voltaire, 'it was considered as a great acquisition for her to gain for a husband a man who was disfigured by nature, and very little enriched by fortune.' She restrained by her modesty his indecent buffooneries, and the literary men who had formerly resorted to his house again frequented it. But he lived with so little economy that his income was soon reduced to a small annuity, and what he styled his marquise of Quinet, i. e. the profits of his publications, which were printed by one Quinet. Though Scarron wrote comedies, he had not patience to study the rules of dramatic poetry. It was the fashion of the times to pillage the Spanish writers. Scarron was acquainted with that language, and he found it easier to use materials already prepared, than to invent new subjects. The great success of his Jodelet Maitre was a great allurements to him. The comedians who acted it requested more of his productions. They were written with little toil, and procured him large sums. Christina, queen of Sweden, when she visited Paris, was anxious to see Scarron. 'I permit you,' said she to Scarron, 'to fall in love with me. The queen of France has made you her valetudinarian, and I create you my Roland' Scarron did not long enjoy that title; as he died on the 14th of October, 1660, aged fifty-one. His works have been collected and published by Bruzen de la Martiniere, in 10 vols. 12mo., 1737. These are, 1. The Æneid travestied, in eight books. 2. Typhon, or the Gigantomachia. 3. Many comedies; as Jodelet, or the Master Valet; Jodelet cuffed; Don Japhet d'Armenie; The Scholar of Salamanca. He also wrote other

pieces in verse. 4. His Comic Romance, in prose, merits attention. It is written with much humor and purity of style. 5. Spanish Novels translated into French. 6. A volume of Letters. 7. Poems; consisting of Songs, Epistles, Stanzas, Odes, and Epigrams. Scarron can raise a laugh on the most serious subjects; but his sallies are rather those of a buffoon than the effusions of ingenuity and taste. He is continually falling into the mean and the obscene.

SCATH, *v. a.* & *n. s.* } Sax. *ŕceahan*, *ŕce-*
SCATH'FUL, *adj.* } *ŕan*. To waste; damage; destroy: the damage or waste done: the adjective corresponding. Both the verb and noun are now obsolete.

The ear that budded fair is burnt and blasted,
And all my hoped gain is turned to scath. *Spenser.*

He bore a spiteful mind against king Edward, doing him all the scath that he could, and annoying his territories. *Id.*

They placed them in Rhodes, where daily doing great scath to the Turk, the great warrior Soliman, with a mighty army, so overlaid them, that he won the island from them. *Knolles.*

A bawbling vessel was he captain of,
For shallow draught, and bulk unprizable,
With which such scathful grapple did he make,
That very envy, and the tongue of loss,
Cried fame and honour on him. *Shakspeare.*

Still preserved from danger, harm, and scath,
By many a sea and many an unknown shore. *Fairfax.*

As when Heaven's fire
Hath scathed the forest oaks, or mountain pines,
With singing top their stately growth, though bare
Stands on the blasted heath. *Milton's Paradise Lost.*

SCATTER, *v. a.* } Sax. *ŕcaterjan*; Belg.
SCATTER'INGLY, *adv.* } *ŕchatteren*. To throw
SCATTER'LING, *n. s.* } loosely about; sprinkle; squander: the adverb corresponding: scatterling is a vagabond; one that has no home or settled habitation. An elegant word, says Johnson, but disused.

Samuel came not to Gilgal, and the people were scattered from Saul. *1 Sam. xiii. 8.*

A king that sitteth in the throne of judgment,
scattereth away all evil with his eyes. *Prov. xx. 8.*

Such losels and scatterlings cannot easily, by any ordinary officer, be gotten, when challenged for any such fact. *Spenser.*

Sound diffuseth itself in rounds; but if that which would scatter in open air be made to go into a canal, it gives greater force to the sound. *Bacon.*

The Spaniards have here and there scatteringly, upon the sea-coasts, set up some towns. *Abbot.*

Adam by this from the cold sudden damp
Recovering, and his scattered spirits returned. *Milton.*

Those drops of prettiness, scatteringly sprinkled amongst the creatures, were designed to defecate and exalt our conceptions, not to inveigle or detain our passions. *Boyle.*

Why should my muse enlarge on Libyan swains,
Their scattered cottages and ample plains? *Dryden.*

Teach the glad hours to scatter, as they fly,
Soft, quiet, gentle love, and endless joy. *Prior.*

Corruption, still
Voracious, swallowed what the liberal hand
Of beauty scattered o'er the savage year. *Thomson.*

The sun
Shakes from his noon-day throne the scattering
clouds. *Id.*

SCAV'ENGER, *n. s.* From Sax. *scapan*, to shave, perhaps to sweep. Once a petty magistrate, whose province was to keep the streets clean: now the laborer employed in removing filth.

Since it is made a labour of the mind, as to inform men's judgments, and move their affections, to resolve difficult places of Scripture, to decide and clear off controversies, I cannot see how to be a butcher, scavenger, or any other such trade does at all qualify men for this work. *South.*

Fasting's Nature's scavenger. *Baynard.*

Dick the scavenger, with equal grace,
Flirts from his cart the mud in Walpole's face.

Swift.

SCAURUS (M. Æmilius), a Roman consul, who distinguished himself by his eloquence at the bar, as well as by his victories in Spain as a general. He was sent against Jugurtha, but was suspected of having been bribed by that monarch. He, however, conquered the Ligurians, and, during his censorship, built the Milvian bridge at Rome, and paved the Æmilian road. He wrote several books, particularly his own life, but none of them are extant.

SCAURUS (M. Æmilius), son of the preceding, is famous for having erected a large and grand theatre at Rome, while he was ædile. It was so capacious that it would contain 30,000 spectators; it was supported by 360 columns of marble, and adorned with 3000 brazen statues.

SCEL'ERAT, *n. s.* Lat. *sceleratus*. A villain; a wicked wretch. A word introduced unnecessarily from the French by a Scottish author.

Scelerats can by no arts stifle the cries of a wounded conscience. *Cheyne.*

SCELERATUS, in Roman antiquity, the name given a street in Rome, formerly called Cyprius, from the horrible wickedness of Tullia, the wife of Tarquin II., who ordered her charioteer to drive her chariot over the body of her wounded father. See **ROME**. Also the name of a plain at Rome, near the Colline gate, so named from the Vestal Minucia being buried alive in it for adultery.

SCENE, *n. s.* } Fr. *scene*; Lat. *scena*; Gr.

SCEN'ERY. } *σκηνη*. The stage; a theatre of dramatic poetry: hence the general appearance of any action; a display; a series; part of a play: the words are nearly synonymous.

The king is set from London, and the *scene*
Is now transported to Southampton. *Shakspeare.*

The alteration of *scenes* feeds and relieves the eye,
before it be full of the same object. *Bacon.*

Cedar and pine, and fir and branching palm,

A sylvan *scene*; and as the ranks ascend

Shade above shade, a woody theatre

Of stately view. *Milton.*

To make a more perfect model of a picture, is, in the language of poets, to draw up the *scenery* of a play. *Dryden.*

A mute *scene* of sorrow, mixt with fear:
Still on the table lay the unfinished cheer. *Id.*

If his characters were good,

The *scenes* entire, and freed from noise and blood,

The action great, yet circumscribed by time,

The words not forced, but sliding into rhyme,
He thought, in hitting these his business done. *Id.*

He must gain a relish of the works of nature, and

be conversant in the various *scenery* of a country life. *Addison.*

Eternity! thou pleasing, dreadful thought!

Through what variety of untried beings,

Through what new *scenes* and changes must we pass!

Id.

Say, shepherd say, are these reflections true?

Or was it but the woman's fear that drew

This cruel *scene*, unjust to love and you? *Prior.*

Our author would excuse these useful *scenes*

Begotten at his entrance. *Granville.*

The progress of the sound, and the *scenery* of the bordering regions, are imitated from Æn. vii. on the sounding the horn of Ælecto. *Pope.*

To complete

The *scene* of desolation, stretched around

The grim guards stand. *Thomson.*

'Tis well, if looked for at so late a day,

In the last *scene* of such a senseless play,

True wisdom will attend his feeble call,

And grace his action ere the curtain fall. *Cowper.*

SCENE, in its primary sense, denoted a place where dramatic pieces and other public shows were exhibited. The original scene for acting of plays was as simple as the representations themselves; it consisted only of a plain plot of ground proper for the occasion, which was in some degree shaded by the neighbouring trees, whose branches were made to meet together, and their vacancies supplied with boards, sticks, and the like; and, to complete the shelter, these were sometimes covered with skins, and sometimes with only the branches of other trees, newly cut down and full of leaves. Afterwards more artificial scenes, or scenical representations, were introduced, and paintings used instead of the objects themselves. Scenes were then of three sorts; tragic, comic, and satiric. The tragic scene represented stately magnificent edifices, with decorations of pillars, statues, and other things suitable to the palaces of kings. The comic exhibited private houses with balconies and windows, in imitation of common buildings; and the satiric was the representation of groves, mountains, dens, and other rural appearances; and these decorations either turned on pivots, or slid along grooves.

SCENE is also a part or division of a dramatic poem. Thus plays are divided into acts, and acts are subdivided into scenes. Whenever, therefore, a new actor appears, or an old one disappears, the action is changed into other hands; and therefore a new scene then commences.

SCEN'ICK, *adj.* Fr. *scenique*, from *scene*. Dramatic; theatrical.

With *scenick* virtue charm the rising age. *Anon.*

SCENOGRAPHICAL, *adj.* } Gr. *σκηνη*,

SCENOGRAPH'ICALLY, *adv.* } and *γραφω*.

Drawn in perspective.

If the workman be skilled in perspective, more than one face may be represented in our diagram scenographically. *Mortimer.*

SCENT, *n. s.* & *v. a.* Fr. *sentir*, to smell; Ital. *sentire*. The power of smelling; the smell; the object of smell; chase by the smell: to smell; to perfume.

Belman cried upon it at the meekest loss,
And twice to-day picked out the dullest scent.

Shakspeare.

The plague, they report, hath a *scent* of the smell of a mellow apple. *Bacon.*

Good *scents* do purify the brain,
Awake the fancy, and the wits refine. *Davis.*

Exulting, 'till he finds their nobler sense
Their disproportioned speed does recompense;
Then curses his conspiring feet, whose *scent*
Betrays that safety which their swiftness lent. *Denham.*

Partake
The season, prime for sweetest *scents* and airs. *Milton.*

So *scented* the grim feature, and upturned
His nostrils wide into the murky air,
Sagacious of his quarry from so far. *Id.*
He gained the observations of innumerable ages,
and travelled upon the same *scent* into *Æthiopia*. *Temple.*

Balm, from a silver box, distilled around,
Shall all bedew the roots, and *scent* the sacred
ground. *Dryden.*

Actæon spies
His opening hounds, and now he hears their cries;
A generous pack, or to maintain the chase,
Or snuff the vapour from the *scented* grass. *Addison.*

Cheerful health,
His duteous handmaid, through the air improved,
With lavish hand diffuses *scents* ambrosial. *Prior.*
A hunted hare treads back her mazes, crosses and
confounds her former track, and uses all possible
methods to divert the *scent*. *Watts.*

The crystal waters round us fa'
The merry birds are lovers a',
The *scented* breezes round us blow,
A' wandering w' me *Davie*. *Burns.*

SCPTICS, an ancient sect of philosophers, founded by Pyrrho, who, according to Laertius, had various other denominations. From their master they were called Pyrrhonians; from the distinguishing tenets or characteristic of their philosophy they derived the name of Aporetici, from *απορειν*, to doubt; from their hesitation they were called ephetici, from *επιχειν*, to stay or keep back; and lastly, they were called zetetici, or seekers, from their never getting beyond the search of truth. That the sceptical philosophy is absurd can admit of no dispute in the present age; and that many of the followers of Pyrrho carried it to the most ridiculous height is no less true. But we cannot believe that he himself was so extravagantly sceptical as has sometimes been asserted, when we reflect on the particulars of his life, which are still preserved, and the respectful manner in which we find him mentioned by his contemporaries, and writers of the first name who flourished soon after him. The truth, as far as at this distance of time it can be discovered, seems to be, that he learned from Democritus to deny the real existence of all qualities in bodies, except those which are essential to primary atoms, and that he referred every thing else to the perceptions of the mind produced by external objects; in other words, to appearance and opinion. All knowledge of course appeared to him to depend on the fallacious report of the senses, and consequently to be uncertain; and in this notion he was confirmed by the general spirit of the Eleatic school in which he was educated. He was further confirmed in his scepticism by the subtilities of the Dialectic schools, in which he had been

instructed by the son of Stilpo; choosing to overturn the cavils of sophistry by recurring to the doctrine of universal uncertainty, and thus breaking the knot which he could not unloose; for, being naturally and habitually inclined to consider immoveable tranquillity as the great end of all philosophy, he was easily led to despise the dissensions of the dogmatists, and to infer from their endless disputes the uncertainty of the questions on which they debated; contrary, as it has often happened to others, becoming also with respect to him the parent of scepticism. Pyrrho's doctrines, however new and extraordinary, were not totally disregarded. He was attended by several scholars, and succeeded by several followers, who preserved the memory of his tenets. The most eminent of his followers was Timon, in whom the public succession of professors in the Pyrrhonic school terminated. In the time of Cicero it was almost extinct, having suffered much from the jealousy of the dogmatists, and from a natural aversion in the human mind to acknowledge total ignorance, or to be left in absolute darkness. The disciples of Timon, however, still continued to profess scepticism, and their notions were embraced privately at least by many others. The school itself was afterwards revived by Ptolemæus, a Cyrenian, and was continued by Ænesidemus, a contemporary of Cicero, who wrote a treatise on the principles of the Pyrrhonic philosophy, the heads of which are preserved by Photius. A system of philosophy thus founded on doubt, and clouded with uncertainty, could neither teach tenets of any importance, nor prescribe a certain rule of conduct; and accordingly we find that the followers of scepticism were guided entirely by chance. As they could form no certain judgment respecting good and evil, they accidentally learned the folly of eagerly pursuing any apparent good, or of avoiding any apparent evil; and their minds of course settled into a state of undisturbed tranquillity, the grand postulatium of their system. In the schools of the sceptics we find ten distinct topics of argument urged in support of the doctrine of uncertainty; with this precaution, however, that nothing could be positively asserted, either concerning their number or their force. These arguments chiefly respect objects of sense; they place all knowledge in appearance; and, as the same things appear very different to different people, it is impossible to say which appearance most truly expresses their real nature. They likewise say that our judgment is liable to uncertainty from the circumstance or frequent or rare occurrence, and that mankind are continually led into different conceptions concerning the same thing by custom, law, fabulous tales, and established opinions. On all these accounts they think every human judgment is liable to uncertainty; and concerning any thing they can only assert that it seems to be; not that it is what it seems. This doubtful reasoning, if reasoning it may be called, the sceptics extended to all the sciences in which they discovered nothing true, or which could be absolutely asserted. In all nature, in physics, morals, and theology, they found contradictory opinions, and inexplicable or incomprehensible

phenomena. In physics the appearances they thought might be deceitful; and, respecting the nature of God and the duties of morality, men were, in their opinion, equally ignorant and uncertain. But scepticism has not been confined to the ancients and to the followers of Pyrrho. Numerous sceptics have arisen in modern times, varying in their principles, manners, and character, as chance, prejudice, vanity, weakness, or indolence prompted them. The great object, however, which they seem to have had in view was to overturn, or at least to weaken, the evidence of analogy, experience, and testimony; some of them have even attempted to show that the axioms of geometry are uncertain, and its demonstrations inconclusive. Most of our readers must be well acquainted with the essays of Hume, and with the able confutations of them by doctors Reid, Campbell, Gregory, and Beattie, who have likewise exposed the weakness of the sceptical reasonings of Des Cartes, Malbranche, and other philosophers of great fame in the same school.

SCÉPTRE, *n. s.* } Fr. *sceptre*; Lat. *scep-*
SCÉPTERED, *adj.* } *trum*. The ensign of
royalty borne in the hand: the adjective corresponding.

Nor shall proud Lancaster usurp my right,
Nor hold the *sceptre* in his childish fist.

Shakspeare.

How, best of kings, do'st thou a *sceptre* bear!
How, best of poets, do'st thou laurel wear!
But two things rare the fates had in their store,
And gave thee both, to shew they could no more.

Ben Jonson.

The court of Rome has, in other instances, so well attested its good menagery, that it is not credible crowns and *sceptres* are conferred gratis.

Decay of Piety.

I sing the man who Judah's *scept're* bore
In that right hand which held the crook before.

Cowley.

The parliament presented those acts which were prepared by them to the royal *sceptre*, in which were some laws restraining the extravagant power of the nobility.

Clarendon.

The *sceptered* heralds call
To council, in the city-gates.

Milton's Paradise Lost.

A shilling dipt in the bath may go for gold among the ignorant, but the *sceptres* on the guinea show the difference.

Dryden.

To Britain's queen the *sceptered* suppliant bends,
To her his crowns and infant race commends.

Tichel.

The Lily's height bespoke command,
A fair imperial flower;
She seemed designed for Flora's hand,
The *sceptre* of her power.

Cowper.

Became religion, and the heart ran o'er
With silent worship of the great of old!—
The dead but *sceptered* sovereigns, who still rule
Our spirits from their urns.

Byron.

The SCÉPTRE is a kind of royal staff, or baton, born on solemn occasions by kings, as a badge of their command and authority. Nicod derives the word from the Greek *σκηπτρον*, which he says originally signified 'a javelin,' which the ancient kings usually bore as a badge of their authority. But *σκηπτρον* does not properly signify a javelin, but a staff to rest upon, from *σκηπτω*, 'I lean upon.' Accordingly, in the sim-

licity of the earlier ages of the world, the sceptres of kings were no other than long walking staves: and Ovid, in speaking of Jupiter, describes him as resting on his sceptre (*Met. i. v. 178*). The sceptre is an ensign of royalty of greater antiquity than the crown. The Greek tragic and other poets put sceptres in the hands of the most ancient kings they ever introduce. Justin observes that the sceptre, in its original, was an hasta, or spear. He adds, that, in the most remote antiquity, men adorned the hasta or sceptres as immortal gods; and that it was upon this account, that, even in his time, they still furnished the gods with sceptres.—Neptune's sceptre is his trident. In process of time, the king's sceptre became covered with ornaments in copper, ivory, gold, or silver, and also with symbolical figures. The sceptre borne by the Roman emperors, as on their medals, &c., is surmounted, when these princes are in the consular habit, with a globe topped by an eagle. Phocas is imagined to have been the first who added a cross to his sceptre; and his successors even substituted the former emblem for the latter, bearing ornamented crosses alone. Richard Cœur de Lion held in his right hand a golden sceptre surmounted by a cross, and, in his left, a golden baton, topped by the figure of a dove. Tarquin the Elder was the first who assumed the sceptre among the Romans. Le Gendre tells us, that, in the first race of the French kings, the sceptre was a golden rod, almost always of the same height with the king who bore it, and crooked at one end like a crozier. Frequently instead of a sceptre, kings are seen on medals with a palm in their hand.

SCHAAF (Charles), a learned German, born at Nuys, in the electorate of Cologne, in 1646. His father was major in the army of the landgrave of Hesse-Cassel. He studied divinity at Duisbourg; and, having acquired the oriental languages, became professor in that university in 1677. In 1679 he was invited to Leyden in the same capacity, where he settled and died in 1729, of an apoplexy. He published several works on oriental learning; of which the principal is his *Grammatica Chaldaica et Syriaca*.

SCHÆFFERA, in botany, a genus of the tetrandria order, and diœcia class of plants: *CAL.* quadripetalous: *cor.* quadripetalous, quinquepetalous, and often wanting; the fruit is a bilocular berry with one seed. Of this there are two species:

1. *S. completa*, and *S. latiflora*, both natives of Jamaica; and growing in the lowlands near the sea.

SCHÆSBURG, a district of Transylvania, belonging to the Saxons, lying along the great Kockel. It contains 210 square miles, with about 20,000 inhabitants. Though hilly, it has no high mountains, and is divided into the Upper and Lower Circles, both of which have good pasturage and vines.

SCHÆSBURG, or SEGESVAR, a town of Transylvania, situated near the Great Kockel. It is divided into the Upper and Lower Town. The former stands on a hill, nearly 250 feet in height, and is fortified; the latter is built on the plain, and open. The inhabitants are chiefly Lutherans,

and have here four churches, with a gymnasium. The principal employments are the weaving of linen, and spinning cotton. The environs produce vines and other fruit. The present town was begun in 1178; but several ruins, and a number of medals found, show that it was occupied by the Romans. Forty-seven miles E. S. E. of Clausenburg, and 120 north-east of Temesvar. Inhabitants 6000.

SCHAFFHAUSEN, a fine town in the north of Switzerland, situated near the frontiers of Suabia, on the Rhine. Its buildings are the large parish church of St. John, an academy with seven professors, besides other teachers, the town library, town-hall, and market house. The transit trade of this place has long been considerable, owing chiefly to its situation about a league above the celebrated cataract of the Rhine, which necessitates all the goods brought down the river to be landed here. The manufactures are of silk, cotton, and leather, and are considerable, and the wine raised in the neighbourhood forms also an article of export. A wooden bridge of ingenious construction, is here thrown across the Rhine, and forms the only channel of communication between this town and the rest of Switzerland. It is 360 feet in length, and consists of two very wide arches. It was first erected in 1758, after the repeated destruction by inundations of the preceding stone bridge; and though burnt by the French troops, in their retreat in 1799, has been rebuilt. Twenty-five miles west of Constance, and fifty east by north of Bale.

SCHAFFHAUSEN, a canton in the north of Switzerland, with an extent of 170 square miles, a number of small hills, but no mountains, except one called the Randen. The climate is temperate, the soil various, and the products wheat, barley, oats, vines and other fruits. The towns and manufactures are inconsiderable. The inhabitants are, with few exceptions, Calvinists. Population 32,000.

SCHALCKEN (Godfrey), an eminent Dutch painter, born at Dort in 1643. He was a disciple of Gerard Douw, whose style he adopted. He resided some time in London, and painted the portrait of king William III. by candle light, the king holding the candle. He was equally eminent in history. He died in 1706.

SCHATEN (Nicolas), a learned Jesuit, who flourished in the seventeenth century. He wrote several works, but that for which he is most celebrated is his History of Lower Germany. It is esteemed very correct, and abounds with interesting researches. He died about 1697.

SCHATZK, a town in the interior of European Russia, in the government of Tambov, on Schata. It has a considerable traffic in hemp, hardware, and silk. Ninety-six miles north of Tambov, and 216 south-east of Moscow. Inhabitants 5700. Long. 41° 56' E., lat. 54° 26' N.

SCHAUENBURG, a district of Hesse, in the north-west of Germany, situated at a distance from the rest of the elector's territories, and consisting of the south and east parts of the principality of Schauenburg-Lippe. Its area is about 210 square miles. It is in general level and fertile. In its government it is independent

of the other states of the electorate. Population 24,000.

SCHAUBURG, or SCHAUMBURG-LIPPE, a principality of the German empire, in Westphalia, worth about £22,000 annually, bounded by Hanover, Prussian Westphalia, and the province of Schauenburg belonging to Hesse-Cassel. Its extent is above 210 square miles. Population 24,000. The soil is fertile, both for tillage and pasturage. The chief manufactures are thread and linen.

SCHEDULE, *n. s.* Fr. *schedule*; Lat. *schedula*. A small scroll; a list or inventory.

The first published *schedules* being brought to a grave knight, he read over an unsavoury sentence or two, and delivered back the libel.

Hooker.

I will give out *schedules* of my beauty; it shall be inventoried, and every particle and utensil labelled to my will.

Shakspeare.

All ill, which all

Prophets or poets spake, and all which all
Be annexed in *schedule* unto this by me,
Fall on that man!

Donne.

A SCHEDULE is a scroll of paper or parchment annexed to a will, lease, or other deed; containing an inventory of goods, or some other matter omitted in the body of the deed. The word is a diminution of the Latin *scheda*, or Greek *σχεδη*, a leaf or piece of paper.

SCHEELE (Charles William), an eminent Swedish chemist, born in 1742, at Stralsund. When very young he received the usual education at a private school; and at a very early age showed a strong desire to follow the profession of an apothecary. With Mr. Bauch, an apothecary at Gottenburg, he passed an apprenticeship of six years, and laid the first foundation of his knowledge. Among the various books which he read, on chemical subjects, Kunckel's Laboratory was his favorite. He repeated many of the experiments in that work privately in the night, when the rest of the family were asleep. A friend of Scheele's had also excited his attention to experiments in chemistry by advising him to read Neuman's Chemistry. After his departure from Gottenburgh in 1765 he obtained a place with Kalstrom, an apothecary at Malmo. In 1767 he went to Stockholm, and in 1773 to Upsal, where he had free access to the University Laboratory. Here also he commenced the friendship which subsisted between him and Bergman. During his residence at this place, Prince Henry of Prussia, accompanied by the duke of Sunderland, visited Upsal, and went to see the Academic Laboratory, and Scheele was appointed by the university to exhibit some chemical experiments to them; and he showed some of the most curious processes in chemistry. In 1777 Scheele was appointed by the Medical College to be apothecary at Koping, where he showed his abilities. When he was at Stockholm he discovered the fluoric acid; and whilst at Upsal, he made many experiments to prove its properties. At the same place he began his series of experiments on manganese. At Koping he finished his Dissertation on Air and Fire; a work which the celebrated Bergman most warmly recommended in the friendly preface which he wrote for it. The theory which Scheele endeavours to

prove in this treatise is, that fire consists of pure air and phlogiston. The author's merit in this work was sufficient to obtain the approbation of the public; as the ingenuity displayed in handling so delicate a subject, and the many new and valuable observations dispersed through the treatise, justly entitled the author to that fame which his book procured him. The English translation is enriched with the notes of Richard Kirwan. Scheele now diligently employed himself in contributing to the Transactions of the Academy at Stockholm. He first pointed out a new way to prepare the salt of benzoïn. In the same year he discovered that arsenic, prepared in a particular manner, partakes of all the properties of an acid, and has its peculiar affinities to other substances. In a Dissertation on Flint, Clay, and Alum, he clearly overturned Beaufort's opinion of the identity of the siliceous and argillaceous earths. He published also an Analysis of the Human Calculus. He published an excellent dissertation on the different sorts of æther. His investigation of the coloring matter in Prussian blue, the means he employed to separate it, and his discovery that alkali, sal ammoniac, and charcoal, mixed together, will produce it, are strong marks of his penetration and genius. The valuable discoveries of this great philosopher, many of which are to be found in the Transactions of the Royal Society at Stockholm, are too numerous for us to attempt to give a list of them. Most of his essays have been published in French by madame Picardet, and M. Morveau of Dijon. Dr. Beddoes also made a very valuable English translation of the greater part of Scheele's dissertations, to which he has added some useful and ingenious notes. His last dissertation was his very valuable observations on the acid of the gall-nut. See GALLIC ACID. The character of Scheele, as a chemist, is too generally established to need any eulogium. He mixed but little with society; as, when his profession permitted him, he was employed in his experimental enquiries. His chemical apparatus was neither neat nor convenient; his laboratory was small and confined; nor was he particular in regard to the vessels which he employed in his experiments, so that it is surprising how such discoveries, and such elegant experiments, could have been made under such disadvantages. He understood none of the modern languages except the German and Swedish; so that he was compelled to wait till discoveries were conveyed to him through the slow channel of translation. An offer was made to him of an annuity of £300 if he would settle in this country; but death put an end to this project. He died in May 1786.

SCHIEFFER (John), a learned German, born at Strasburg in 1621. He became eminent as a critic on Greek and Latin authors. Being obliged to leave his native country on account of the wars in 1648 he retired to Sweden, where queen Christina was patronising all men of letters. He was soon after professor of eloquence and politics at Upsal; honorary professor royal of the law of nature and nations; and assessor of the royal college of antiquities; and at last librarian of the university of Upsal. He published several learned works; particularly *De Militia Navali Veterum*. He died in 1679.

SCHIEGKIUS (James), a learned German physician and professor, of the seventeenth century, born at Schorndorf, in the duchy of Wirtemberg. He was first appointed professor of philosophy in Tubingen; and afterwards professor of medicine for thirteen years. He wrote several works on philosophy, medicine, and theology; of which the most celebrated is his work *De Animæ Principatu*; an *cordi*, an *cerebræ*, *tribuendus*.

SCHIEINER (Christopher), a German mathematician, astronomer, and jesuit, eminent as the first who discovered spots on the sun, was born at Schwaben in the territory of Middleheim in 1575. He first discovered these dark places on the sun's disk in 1611, and made observations on these phenomena at Rome, until at length, reducing them to order, he published them in one volume folio in 1630. He wrote also other tracts, relating to mathematics and philosophy, and died in 1690.

SCHIEDT, or SCHELDE, a large river of the Netherlands, which, rises in the French department of the Aisne, and flows in a northerly direction by Cambray, Bouchan, and Denain, to Valenciennes, where it becomes navigable. From Valenciennes it diverges to Conde and Tournay, inclining to the north-east, after which it flows nearly north, passes Oudenarde, and reaches Ghent, where it is joined by the Lys. From Ghent it winds to Antwerp; and, being now swelled into a wide river, becomes divided into the two branches of East and West Scheldt, both of which discharge themselves into the German Ocean. It is of a slow current, hence well called by Goldsmith 'the lazy Scheldt,' and of a small body of fresh water, but in the lower part of its course, of great importance to navigation. The Dutch, to increase the commerce of Amsterdam, kept it long blocked by two forts. It has been free only since 1795. The number of merchant vessels that entered it in 1815 was 1000, of which 500 were British. The whole length of its course is about 200 miles.

SCHIELESTADT, or SCHLETTSTADT, a town in the east of France, department of the Lower Rhine, on a canal that communicates with the Ille. It is covered on one side by marshes, and on the other it is strongly fortified. It has some manufactures of tobacco, caps, stockings, salt-petre, potash, soap, and earthenware. The art of glazing earthenware is said to have been invented here. It was confirmed to France at the peace of Westphalia in 1648. Population 7500. Twenty-five miles south-west of Strasburg.

SCHIELLINKS (William), an eminent Dutch painter, born at Amsterdam in 1631. He painted history and landscapes, but chiefly excelled in sea pieces. His chief work is a picture of Charles II. embarking for England, at the Restoration; in which the figures are well grouped. He died in 1678.

SCHIELLINKS (Daniel), a younger brother of William, was born at Amsterdam in 1633. He was also reputed a good landscape painter. He died in 1701.

SCHIEME, *n. s.* } Gr. *σχημα*. A plan; com-
SCHIE'MER, } bination of various things
SCHIE'MATISM. } into one view or design; a

system; a combination of the aspects of the heavenly bodies.

It is a *scheme* and face of heaven,

As th' aspects are disposed this even. *Hudibras.*

It hath embroiled astrology in the erection of *schemes*, and the judgment of death and diseases.

Browne.

Were our senses made much quicker, the appearance and outward *scheme* of things would have quite another face to us, and be inconsistent with our well-being.

Locke.

He forms the well concerted *scheme* of mischief; 'Tis fix'd, 'tis done, and both are doomed to death.

Rowe.

The haughty monarch was laying *schemes* for suppressing the ancient liberties, and removing the ancient boundaries of kingdoms.

Atterbury.

The stoical *scheme* of supplying our wants by lopping off our desires, is like cutting off our feet when we want shoes.

Swift.

Every particle of matter, whatever form or *schematicism* it puts on, must in all conditions be equally extended, and therefore take up the same room.

Creech.

Hope calculates its *schemes* for a long and durable life; presses forward to imaginary points of bliss, and grasps at impossibilities; and consequently very often ensnares men into beggary, ruin, and dishonour.

Addison.

SHEMNITZ, or **SELMECZ-BANJA**, a well-built and large mining town of Hungary, stands in the midst of the most picturesque scenery, a few miles from the Raab, and contains a number of good houses and tolerably wide streets. It contains, including the suburb of Bela-Banja, about 23,000 inhabitants, of whom 12,000 are employed about the mines of Schemnitz, the most extensive in Hungary. The extent of ground containing the ores is calculated at five or six miles square, and includes the town, which is undermined. The works are now at a great depth, the old tunnel for drawing off the water being nearly 1100 feet below the surface, and the new still lower. Schemnitz is a favorable situation for a mining school, and there has been here one of celebrity since the middle of the eighteenth century. A fund for experiments is allowed by government. Forty-six miles north of Gran, and eighty-three east north of Presburg.

SCHESIS, *n. s.* Gr. *σχέσις*. Habitude; state of any thing with respect to other things.

If that mind which has existing in itself from all eternity all the simple essences of things, and consequently all their possible *schemes* or habitudes, should ever change, there would arise a new *schesis* in the mind, which is contrary to the supposition. *Norris.*

SCHUCHZERIA, in botany, lesser flowering rush, a genus of the trigynia order, and hexandria class of plants; natural order fifth, tripetaloidæ: *cal.* sexpartite: *cor.* none; styles none: *caps.* three inflated and monospermous. Species one only, a native of Europe.

SCHIAVONA (Andrew), a celebrated painter, born at Sebenico, in Dalmatia, in 1522. His parents were so poor that they could not procure him a master; but, being merely employed as a servant about a painter's shop, he rose by the force of his own genius to a high degree of fame. He showed great taste in his drapery and the attitudes of his figures. He died at Venice in 1582.

SCHICKARD (William), professor of Hebrew in the university of Tubingen, was born in 1592. He wrote various learned works: as, 1. A Hebrew Grammar entitled *Horologium Schickardi*; 2. *De Jure Regio Judæorum*, Leipsic, 1674, 4to.; 3. *Series Regum Persiæ*, Tubing. 1621, 4to. He died of the plague in 1635, aged forty-three.

SCHIDONE (Bartholomew), an eminent history and portrait painter, born at Modena in 1560. He studied in the school of the Caracci, but adopted the style of Corregio. His genius was great, but he lost its advantages by gaming. He died in 1616.

SCHIECH. See **SHEIK**.

SCHIEDAM, a considerable town of the Netherlands, in South Holland, situated on the river Schie, a short way from its influx into the Maese. It is noted for its very numerous distilleries of gin (Hollands), of which there are no less than 200 in the town. This article forms its chief export; but the inhabitants take part also in the herring fishery. Population 9000. Schiedam has a small harbour, and is four miles west of Rotterdam, and six south by east of Delft.

SCHILLER (Frederick), was born November 10th, 1759, at Marbach in Wirtemberg, where his father was a lieutenant in the service of the duke. While a boy Schiller was distinguished by uncommon ardor of imagination; and he was sent to the military school at Stuttgart called Charles's Academy. Schiller was originally destined for the profession of surgery, and prosecuted that study with great zeal, especially anatomy and physiology, which opened an extensive field to his highly inquisitive mind. His first publication was his *Robbers*, which was ordered to be suppressed, principally on account of the following passage:—'This ruby I drew from the finger of a rainister whom I threw down at the feet of his sovereign in the chase. By adulation he had raised himself from the lowest rank to be the favorite of the prince; the fall of his neighbour was the means of his greatness, and the tears of orphans assisted in his elevation. This diamond I took from another of the crew, who sold honors and offices to the highest bidder, and pushed from his door the dejected patriot.' It will be recollected that Schiller lived in the same country where Schubarth languished for eight years of horror in the fortress of Hohenasperg. Schiller, therefore, did not think it advisable to await the decision of his own fate, especially as he had inserted an obnoxious poem on tyranny in Schubarth's chronicle. He fled to Manheim. Here he at first had recourse to his surgical attainments for a subsistence. He was appointed surgeon to a regiment, till his friends opened for him a career more adapted to his talents, and procured him the post of dramatist to the theatre of Manheim. The fruits of this appointment are, *The Conspiracy of Fiesco*, and *Intrigue and Love*. The Rhenish Thalia likewise deserves to be mentioned. Schiller however was not quite contented with his situation; and, without other fortune, the fortune of his genius inspired him with confidence in himself, and his fame gave him reason to hope that he should

every where meet with friends. He left Manheim for Mentz, where he had the good fortune to become acquainted with the duke of Weimar, to whom he read the first act of his *Don Carlos*. Soon after this interview he visited Saxony, where Dresden captivated him by its treasures of art, its rich library, and the men of genius whom he found there. His *Don Carlos*, which he continued during his residency at Dresden, was soon interrupted. He began to read every thing that related to Philip; the library of Dresden afforded him abundant materials; and he became imperceptibly so deeply interested that he neglected poetry for a time, and attended solely to history, to which we are indebted for his *Revolt of the Netherlands from the Spanish Government*. At Leipsic, or rather at Gohlis, a charming village near that city, where he passed a summer with M. Goschin, he continued and completed his *Don Carlos*. From Leipsic Schiller removed to Weimar, where Weiland, whom he for a time assisted in the publication of the *German Mercury*, received him with cordiality. Some years afterwards Schiller was appointed professor of history at Jena, and taught that science with almost unexampled applause. That he might be able to study and to labour with less interruption, he reversed the order of nature. However singular it may appear, it is not the less true, that at the evening he might be found at his breakfast, and at midnight deeply engaged in business. The stamp of midnight is in fact strikingly impressed on many of his compositions. At length, however, Goethe invited him back to Weimar, where he composed his *Maid of Orleans*, of the first representation of which at Leipsic the following account is given by an eye-witness and a friend of Schiller: 'I repaired,' says he, 'from Lauchstadt to Leipsic, and should not have repented the journey, had I only witnessed the respect paid to Schiller, in a manner perhaps unparalleled in the annals of the German stage. Notwithstanding the heat, the house was crowded almost to suffocation. No sooner had the curtain dropped at the conclusion of the first act, than a thousand voices exclaimed, as with one mouth, 'Long live Frederick Schiller!' and the sound of drums and of trumpets joined in this expression of universal applause. The modest author returned thanks from his box with a bow, but all the spectators had not been able to obtain a sight of the object of their admiration. You may therefore conceive how, when the play was over, all thronged out of the house to see him. The extensive space from the theatre to the Ranstadt gate was crowded with people. He came out, and in a moment a passage was cleared. 'Hats off!' exclaimed a voice; the requisition was universally complied with; and thus the poet proceeded through multitudes of admiring spectators, who all stood uncovered, while parents in the back ground raised their children in their arms, and cried, That is Schiller.' This distinguished writer died in 1805.

SCHILLING (Diebold), a native of Soleure, in Switzerland, the greffer of a tribunal in Berne, in the fifteenth century. He wrote in the German language, *A History of the War between*

the Swiss and Charles le Temeraire, Duke of Burgundy; which was published at Berne in 1743, in folio. The author was present in almost all the battles he describes.

SCHINUS, in botany, Indian mastic, a genus of the decandria order, and diœcia class of plants; natural order forty-third, dumosa; MALE CAL. quinquefid; the petals five: FEMALE, flower the same as in the male; the berry tricocceous. Species two, natives of Peru and Brasil.

SCHISM, *n. s.* } Fr. *schisme*; Gr. }
 SCHISMATICAL, *adj.* } *σχίσμα*. A separation
 SCHISMATICALLY, *adv.* } or division in
 SCHIS'MATIC, *n. s.* } the church: the derivatives corresponding.

No known heretick nor *schismatick* should be suffered to go into those countries. Bacon.

Set bounds to our passions by reason, to our errors by truth, and to our *schisms* by charity.

King Charles.

By these tumults all factions, seditions, and *schismatical* proposals against government, ecclesiastical and civil, must be backed. Id.

Thus you behold the *schismatick's* bravadoes: Wild squeaks in squibs, and Calamy in grenado's.

Butler.

Oppose *schisms* by unity, hypocrisy by sober piety, and debauchery by temperance. Sprat.

Here bare anathemas fall but like so many brutia fulmina upon the obstinate and *schismatical*, who are like to think themselves shrewdly hurt by being cut off from that body which they chuse not to be of, and so being punished into a quiet enjoyment of their beloved separation. South.

When a *schism* is once spread, there grows at length a dispute which are the *schismaticks*: in the sense of the law the *schism* lies on that side which opposes itself to the religion of the state. Swift.

The *schismaticks* united in a solemn league and covenant to alter the whole system of spiritual government. Id.

SCHISM is chiefly used of separations happening from diversity of opinions among people previously of the same religion and faith. Among ecclesiastical authors, the great schism of the west is that which happened in the times of Clement VII. and Urban VI., which divided the church for forty or fifty years, and was at length ended by the election of Martin V., at the council of Constance. The Romanists number thirty-four schisms in their church. They bestow the name English schism on the reformation of religion in this kingdom. Some of the church of England apply the term schism to the separation of the nonconformists, viz. the presbyterians, independents, and anabaptists, for further reformation.

SCHLICHTINGIUS (Jonas, De Bukowic), a Unitarian author, born in Poland in 1596; where he preached till he was expelled by the diet of Warsaw, in 1647. He then retired to Muscovy, and settled at Zullichaw; where he died in 1661. His works were printed at Amsterdam in 1766.

SCHMIDT (Erasmus), a learned German, born at Delitzch in Misnia, in 1560. He became professor of Greek and mathematics at Wirtemberg, where he taught these sciences with great reputation for many years, and died in 1637. He published an edition of Pindar, with a Latin

version and a commentary in 4to. 1616; also editions with learned notes of Lycophron, Dionysius, Periegetes, and Hesiod; which last was published at Geneva in 1693.

SCHNEEBERG, a town of Saxony, fifty-three miles W. S. W. of Dresden, and seven W. N. W. of Schwarzenberg. It contains 4400 inhabitants; has several public schools, and some manufactures, of which that of smalts is the largest in Saxony: others are connected with the neighbouring mines. The quantity of gold extracted from these is said to have been formerly considerable. At present the chief products of the mines are silver, cobalt, bismuth, iron, some tin and lead.

SCHOEFFER (Peter), a German painter, who flourished in the middle of the fifteenth century, and was one of the latest improvers of the art, by the discovery of the matrix in type-founding.

SCHÖENOBATES, (from the Greek, *σχολιος*, a rope, and *βανω*, I walk), a name which the Greeks gave to their rope-dancers: by the Romans called funambuli. The schœnobates were slaves whose masters profited by entertaining the people with their feats of activity. Mercurialis de arte gymnasticâ, lib. iii. gives us five figures of schœnobates engraven after ancient stones.

SCHOENUS, in botany, bastard cyprus, marsh, or round rush, a genus of the monogynia order, and triandria class of plants; natural order third, calamariæ. The glumes are paleaceous, univalved, and thickest: cor. none; and only one roundish seed between the glumes. Species forty, natives chiefly of the Cape.

SCHOEPLIN (John Daniel), a learned German, born at Sulzburg, in the Brisgaw, in 1694, He became professor of history in the Lutheran university of Strasburg. He was offered the same professorship at Francfort on the Oder, at Upsal in Sweden, at the famed university of Leyden, and was invited to Petersburg, by the czarina to be historiographer imperial, but he preferred Strasburg. In 1725 he pronounced a congratulatory oration in the name of the university before king Stanislaus, on the marriage of his daughter with the king of France; which was printed with some other tracts. He died at Strasburg in 1771.

SCHOLAR, *n. s.* } Fr. *ecolier*; Lat. *scholaris*, *scholar*. A disciple; one who learns of a master: hence both a man of real literary attainments or excellence, and a pedant, a mere man of books: scholarship follows only what may be called the good sense: scholastic and scholastically, all the senses of scholar: a school is a house or establishment devoted to instruction and discipline; a state or mode of instruction; hence a particular system, and hence the theological system of those ages immediately following the Fathers: to school is, to instruct, train, lecture; treat with disdainful superiority or super-

cilliousness: the compounds do not appear to need explanation.

Una her besought to be so good
As in her virtuous rules to school her knight.

Færie Queens.

Fair Una 'gan Fidelia fair request,
To have her knight unto her schoolhouse placed.

Spenser.

Many times that which deserveth approbation would hardly find favour, if they which propose it were not to profess themselves scholars, and followers of the ancients.

Hooker.

The favour of proposing there, in convenient sort, whatsoever ye can object, which thing I have known them to grant, of *scholastick* courtesy unto strangers, never hath nor ever will be denied you.

Id.

Adrian VI. was some time schoolmaster to Charles V.

Knolles.

He's gentle, never schooled, and yet learned.

Shakspeare.

You shall go with me;

I have some private schooling for you both.

Id.

Schoolboys' tears take up

The glasses of my sight.

Id.

Is all forgot?

All schooldays friendship, childhood, innocence? *Id.*

My cousin William is become a good scholar: he is at Oxford still, is he not?

Id.

I, thy schoolmaster, have made thee more profit

Than other princes can, that have more time

For vainer hours, and tutors not so careful.

Id.

The king, though no good schoolman, converted one of them by dispute.

Bacon.

If a man's wit be not apt to distinguish or find differences, let him study the schoolmen.

Id.

To spend too much time in studies, is sloth; to make judgment wholly by their rules, is the humour of a scholar: they perfect nature, and are perfected by experience.

Id.

Sir Francis Bacon was wont to say, that those who left useful studies for useless scholastick speculations, were like the Olympick gamesters, who abstained from necessary labours, that they might be fit for such as were not so.

Id.

The ancient sophists and rhetoricians lived till they were an hundred years old; and so likewise did many of the grammarians and schoolmasters, as Orbilius.

Id.

No crazed brain could ever yet propound,

Touching the soul, so vain and fond a thought;

But some among these masters have been found,

Which in their schools the self-same thing had taught.

Davies.

He grins, smacks, shrugs, and such an itch endures,

As 'prentices or schoolboys, which do know

Of some gay sport abroad, yet dare not go. *Donne.*

To schoolmen I bequeath my doubtfulness,

My sickness to physicians.

Id.

Scholastic education, like a trade, does so fix a man in a particular way, that he is not fit to judge of any thing that lies out of that way.

Burnet's Theory.

The first principles of Christian religion should not be forced with school points and private tenets.

Saunderson.

My end being private, I have not expressed my conceptions in the language of the schools. *Digby.*

I would render this intelligible to every rational man, however little versed in scholastic learning.

Id. on Bodies.

Let no man be less confident in his faith, concerning the great blessings God designs in these divine mysteries, by reason of any difference in the

several *schools* of Christians, concerning the consequent blessings thereof. *Taylor.*

This same *scholar's* fate res angusta domi, hinders the promoting of learning. *Wilkins.*

This place should be *school* and university, not needing a remove to any other house of *scholarship*. *Milton.*

Both sides charge the other with idolatry, and that is a matter of conscience, and not a *scholastick* nicety. *Stillingfleet.*

Their age the same, their inclinations too, And bred together in one *school* they grew. *Dryden.*

School your child,

And ask why God's anointed he reviled. *Id.*

Thy flattering method on the youth pursue; Joined with his *schoolfellows* by two and two: Persuade them first to lead an empty wheel, In length of time produce the laboring yoke. *Id.*

Such precepts I have selected from the most considerable which we have from nature, that exact *schoolmistress*. *Id.*

A man may find an infinite number of propositions in books of metaphysics, *school* divinity, and natural philosophy, and know as little of God, spirits, or bodies, as he did before. *Locke.*

The emulation of *schoolfellows* often puts life and industry into young lads. *Id.*

To watch occasions to correct others in their discourse, and not slip any opportunity of shewing their talents, *scholars* are most blamed for. *Id.*

A father may see his children taught, though he himself does not turn *schoolmaster*. *South's Sermons.*

No moralists or casuists, that treat *scholastically* of justice but treat of gratitude, under that general head as a part of it. *South.*

The *scholars* of the Stagyrte,

Who for the old opinion fight,

Would make their modern friends confess
The difference but from more to less. *Prior.*

My *schoolmistress*, like a vixen Turk,
Maintains a lazy husband by our work. *Gay.*

If this be *schooling*, it is well for the considerer: I'll engage that no adversary of his shall in this sense ever *school* him. *Atterbury.*

Unlearned, he knew no *schoolman's* subtle art; No language, but the language of the heart. *Pope.*

It pities my very heart to think that a man of my master's understanding, and great *scholarship*, who had a book of his own in print, should talk so outrageously. *Id.*

Once he had heard a *schoolboy* tell,

How Semele of mortal race

By thunder died. *Swift.*

Writers on that subject have turned it into a composition of hard words, trifles, and subtilities, for the mere use of the *schools*, and that only to amuse men with empty sounds. *Watts.*

Men of nice palates could not relish Aristotle, as he was dressed up by the *schoolmen*. *Baker.*

Warped by the world in Disappointment's *school*, In words too wise, in conduct there a fool: Too firm to yield, and far too proud to stoop, Doomed by his very virtues for a dupe, He cursed those virtues as the cause of ill, And not the traitors who betrayed him still. *Byron.*

A SCHOLIAST, or commentator, is a grammarian who writes scholia, or notes, &c., upon ancient authors who have written in the learned languages.

SCHO'LION, *n. s.* } Lat. *scholium*. A note;
SCHO'LUM, } an explanatory observa-
SCHO'LIAST, } tion: Hooker only uses
SCHO'LY. } scholy in this sense:
scholiast is a writer of such notes.

Hereunto have I added a certain gloss or *scholium*, for the exposition of old words, and harder phrases, which manner of glossing and commenting will seem strange in our language. *Spenser.*

That *scholy* had need of a very favourable reader, and a tractable, that should think it plain construction, when to be commanded to the word, and grounded upon the word, are made all one. *Hooker.*

The title of this satyr, in some ancient manuscripts, was the reproach of idleness; though in others of the *scholastics*, 'tis inscribed against the luxury of the rich. *Dryden.*

What Gellius or Stobæus cooked before,
Or chewed by blind old *scholias* o'er and o'er. *Pope.*

Some cast all their metaphysical and moral learning into the method of mathematicians, and bring every thing relating to these abstracted or practical sciences under theorems, problems, postulates, *scholiums*, and corollaries. *Watts.*

SCHOMBERG (Frederick Armand duke of) a distinguished officer, the son of count Schomberg, by an English lady, daughter of lord Dudley, was born in 1608. He entered into the military life under Frederick Henry prince of Orange, and served under his son William II. of Orange. He then repaired to the court of France, where his reputation was so well established that he obtained the government of Gravelines, Furnes, and the adjacent countries. The French court soon after sent Schomberg to assist the Portuguese against the Spaniards, which he effectually did. The court of Spain was compelled to solicit peace in 1668, and to acknowledge the right of the house of Braganza to the throne of Portugal. For his services he was created count Mentola in Portugal; and a pension of £5000 was bestowed upon him, with the reversion to his heirs. In 1673 he came over to England to command the army; but, the English being then disgusted with the French nation, Schomberg was suspected; and therefore returned to France, which he soon left, and went to the Netherlands. In June 1676 he compelled the prince of Orange to raise the siege of Maestricht; and was raised to the rank of marshal of France. Upon the revocation of the edict of Nantes, when the persecution commenced against the Protestants, Schomberg, who was of that persuasion, requested leave to retire into his own country. This was refused; but he was permitted to take refuge in Portugal, where he had reason to expect he would be kindly received on account of past services. But the bigotry of the Portuguese, though it did not prevent them from accepting assistance from a heretic when their kingdom was threatened with subversion, would not permit them to give him shelter when he came for protection. The inquisition interfered, and obliged the king to send him away. He then went to Holland, and the elector of Brandenburg made him governor of Ducal Prussia, and commander in chief of his forces. When the prince of Orange sailed to England, to take possession of its crown, Schomberg obtained permission from the elector to accompany him. In April 1689 he was made K. G., and naturalised by act of parliament; and in May following was created a baron, earl, marquis, and duke of Eng-

land, by the title of baron Teys, earl of Brentford, marquis of Harwich, and duke of Schomberg. The house of commons voted to him £100,000, as a reward for his services. Of this he only received a small part; but after his death a pension of £5000 a year was bestowed upon his son. In August 1689 he was sent to Ireland to reduce that kingdom. When he arrived he found himself at the head of an army consisting only of 12,000 foot and 2000 horse, while king James commanded an army three times as numerous. Schomberg thought it dangerous to engage with so superior a force, and, being disappointed in his promised supplies from England, remained on the defensive. He posted himself at Dundalk, about five or six miles from James, who was encamped at Ardee. For six weeks he remained in this position, without attempting to give battle, while, from the wetness of the season, he lost nearly the half of his army. Schomberg was much blamed for not coming to action; but had he risked an engagement, and been defeated, Ireland would have been lost. At the famous battle of the Boyne, which decided the fate of James, Schomberg passed the river at the head of his cavalry, defeated eight squadrons, and broke the Irish infantry. When the French Protestants lost their commander, Schomberg went to rally and lead them on to charge. While thus engaged, a party of king James's guards passed Schomberg in attempting to rejoin their own army. They attacked him with great fury, and gave him two wounds in the head. The wounds were not dangerous, but the French Protestants, thinking their general was killed, fired upon the guards, and shot him dead. He was buried in St. Patrick's cathedral.

SCHONBURG, a county of Saxony, which belonged to Bohemia till the treaty of Teschen, in 1779, when it was ceded to Saxony. It adjoins the circles of Leipsic and the Erzgebirge, has an extent of about 340 square miles, and a population of 61,000.

A SCHOOL is a public place, wherein the languages, the arts, or sciences are taught. See **EDUCATION**. The Latin *schola*, according to Du Cange, signifies discipline and correction; he adds that it was anciently used, in general, for all places where several persons met together, to study, converse, or do any other matter. Accordingly, there were *scholæ palatinæ*, being the several posts wherein the emperor's guards were placed; *schola scutariorum*, *schola gentilium*, &c. At length the term passed also to civil magistrates; and, accordingly, in the code we meet with *schola chartulariorum*, *schola agentium*, &c.; and even to ecclesiastics, as *schola cantorum*, *schola sacerdotum*, &c.

SCHOONER, in naval affairs, a small vessel with two masts, whose main-sail and fore-sail are suspended from gaffs, reaching from the mast towards the stern, and stretched out below by booms, whose foremost ends are hooked to an iron, which clasps the mast so as to turn therein as upon an axis, when the after-ends are swung from one side of the vessel to the other.

SCHOREL (John), a Flemish painter, who was also a musician and linguist, born in 1495, at Schore in Holland. He studied under Al-

bert Durer; and travelled into Germany, where a friar prevailed on him to accompany him to Jerusalem, where he painted several relics of antiquity. On his return he visited Venice and Rome, where pope Adrian VI. appointed him superintendent of the buildings at Belvidere. On Adrian's death he returned to the Netherlands, and refused an offer from Francis I. of France, to settle in Paris. He died in 1562.

SCHORNDORF, a neat town of Wirtemberg, on the Rems, seventeen miles east of Stutgard. The chief manufacture is coarse woollens. The environs have always been noted for their wine. Inhabitants 3500.

SCHOTIA, in botany, a genus of the monogynia order, and decandria class of plants; natural order thirty-third, lomentacæ: *cal.* semi-quinquefid: *cor.* with five petals, which are equal; the tube is turbinate, caraceous, and persistent. The legumen pedicellated, and contains two seeds; there is only one species, viz.

S. speciosa, the African lignum vitæ.

SCHOTTUS (Andrew), a learned Jesuit, born at Antwerp, in 1552. He studied at Louvain, and afterwards went to Paris; whence he travelled into Spain, and became professor of Greek at Toledo. He published several tracts, and died at Antwerp in 1629.

SCHOTTUS (Gaspar), professor of mathematics, at Wirtemberg, who first published an account of Guericke's discovery of the Air-pump, in 1657, in a work entitled *Mechanica Hydraulicopneumatica*. In 1664 he published a more full account of it, in his *Technica Curiosa*, a curious collection of all the wonderful experiments, &c., then known in Europe.

SCHOUTEN'S ISLAND, an island on the east coast of Van Diemen's Land, consisting almost entirely of lofty black mountains, separated by deep reaches.

SCHOUWEN, an island of the province of Zealand, at the mouth of the Scheldt. Its extent, fifteen miles in length and five in breadth, was formerly greater, a part of it having been overflowed by the sea. In 1809 it was occupied by the British forces. The chief town is Zierikzee.

SCHREVELIUS (Cornelius), a laborious Dutch critic and writer, born at Haerlem, in 1615; who has given the public some editions of the ancient authors more elegant than correct: his Greek Lexicon is esteemed the best of all his works. He died in 1667.

SCHROETER (John Samuel), an eminent musician born in Saxony. He came to London in 1774, with his father, who was also a musician, but of no great eminence. But young Schroeter improved himself under the famous Emanuel Bach; and some time after composed a set of Lessons for the Piano-forte, which Napier published, and paid him liberally for the copyright. This raised his fame, and procured him several scholars. After the publication of his first set of Concertos, he obtained the lead in all musical entertainments. About this time he married a young lady, who was his pupil, through whom he became entitled to a large fortune; but her friends threatening him with the terrors of the court of chancery, he gave up his claim, for

an annuity of £500, with this condition, that he should perform no more in public. But the prince of Wales not long after appointed him one of his band of music with a liberal salary. His last Set of Sonatas, with an elegant accompaniment for the violin and violincello, were composed at the desire of the prince, to whom it was dedicated. He died in 1785.

SCHULTENS (Albert), professor of Hebrew and of the eastern languages at Leyden, was born at Groningen, where he studied till 1706, and continued his studies at Leyden and Utrecht. He at length applied himself to the study of Arabic; in which he made great progress. A short time after he became minister of Wassenar, and two years after professor of the eastern tongues at Franeker. At length he was invited to Leyden, where he taught Hebrew and the eastern languages with great reputation till his death, in 1750. His principal works are, 1. A Commentary on Job, 2 vols. 4to. 2. A Commentary on the Proverbs. 3. *Vetus et regia via Hebraicandi*. 4. *Animadversiones Philologicæ et Criticæ ad varia loca Veteris Testamenti*. 5. A Treatise on Hebrew roots. 6. An excellent Hebrew grammar, &c. Schultens discovered in his works sound criticism and much learning. He maintained, in opposition to Gousset and Driessen, that to have a perfect knowledge of Hebrew it is necessary to join with it, not only the Chaldee and Syriac, but more particularly the Arabic.

SCHUMEG, or SOMOGYI-VARMEGYE, a palatinate of Hungary, between the Balaton lake and the Drave. Its area is 2430 square miles; generally level, and in many places marshy, and unhealthy. The inhabitants are of very various races, and there are many Jews. The county takes its name from the old castle of Somogy or Schumeg, but the chief town is Kaposvar. Population 170,000.

SCHUMLA, SCHUMNA, or CIUMLA, a large and very strong town in the north-east of European Turkey, on the road from Constantinople to Wallachia. It is situated in the province of Silistria, about fifty miles south of the Danube, which is here in the lower part of its course. It is supposed to occupy the site of the ancient Marcianopolis. In general not well built, it still contains many handsome mosques and baths. Its castle is one of the chief Turkish posts (indeed the principal one) between Adrianople and the Russian frontier. The importance of this place altogether has never been more decidedly evinced than in the recent struggle for the possession of it, between Russia and Turkey. The population, as in other Turkish towns, is unascertained by any ancient register, but is said to amount to 30,000. Its trade consists chiefly in the wine of the country, the manufacture of hardware, and in consequence of German cloth being cheap here in the manufacture of cloth for the Turkish metropolis. From the marshy nature of the neighbouring country, strangers, it is said, cannot remain here even a few days without being seized with intermittent fever. The great natural features of this part of Turkey are the Danube and the long mountain range of Balkan, the ancient Hæmus. They extend from west to east, in a direction nearly parallel, at a distance of about

100 miles; and Schumla stands half way between them. On the east, at the distance of seventy miles, is the Euxine; on the west the interior of Bulgaria.

SCHUYLKILL, a river of Pennsylvania, United States, which rises in Luzerne county, north-west of the Kittatinny mountains, through which it passes; runs south-east into the Delaware, six miles below Philadelphia. It is 140 miles long, and navigable for boats for ninety. The Tulpehocken, a navigable stream, flows into the Schuylkill one mile and a half above Reading. There are falls on the river five miles above Philadelphia, and Swedes falls a little below Norristown. A canal, connecting the Swatara with the Tulpehocken will unite the waters of the Schuylkill with those of the Susquehanna.

SCHWALBEA, in botany, a genus of the angiospermia order, and didynamia class of plants: CAL. quadrifid, with a superior lobe; the lowermost longest, and emarginated. Species one only, a North American plant, with a fine dark red flower.

SCHWARTS, or SCHWARTZ (Cornelius), an eminent history painter, born at Ingolstadt in 1550, who was distinguished by the appellation of the German Raphael. He learned the first principles of the art in his own country, but finished his studies at Venice; when he not only made the works of Titian his models, but received some personal instructions from that illustrious master. His performances were soon in high esteem, and he was invited by the elector of Bavaria to his court, and appointed his principal painter. He died in 1594; and his most capital works, as well in fresco as in oil, are in the palace at Munich, and in the churches and convents.

SCHWARTZ (Bartholemew or Bertholet), a native of Friburg in Germany, who flourished in the thirteenth and fourteenth centuries, and is remarkable for being the discoverer of gunpowder, in 1320.

SCHWARTZ (Christian Frederick), a missionary to the East Indies, born at Sonnenburg, in the Newmarck, October 26th, 1726, went to Halle in 1746, and entered at the University, by the advice of the ex-missionary Schulze. When he had continued his oriental studies for a-year and a half, he was persuaded to go out to the East and proceeded to England with two other gentlemen destined for the same service: in July 1750 they arrived at Tranquebar. Mr. Schwartz, in 1767, was taken into the service of the English Society for the promotion of Christian knowledge, when he removed to Trichinopoly; and there and at Tanjore passed the remainder of his life. At both places he also received from the government of Madras £100 a-year, as garrison preacher, which sum he is said to have expended in building a church at Trichinopoly, &c. He was held in high esteem by the Hindoos; and the rajah of Tanjore made him tutor to his son. He died February 13th, 1796, at Tanjore, and his body was interred in his own church.

SCHWARTZENBERG, a small principality of Franconia, in the dominions of Bavaria. Its area is somewhat less than 100 square miles. The prevailing religion is Lutheran. The princes

of this house are descended from one of the oldest families in Franconia, and owe their revenue and political power less to this principality than to their extensive domains in Bohemia and other parts of Germany. The total population on their estates, or in towns in which they hold property, is computed at 130,000. The head of the house was made a prince of the empire in 1670, but mediatised in 1806.

SCHWARTZBURG, a district in the interior of Germany, divided into two counties. One of them adjoining Saxe-Gotha, the other, farther to the south, is near the Russian province of Erfurt. The area of the whole is 1166 square miles; very hilly, but interspersed with fertile valleys, extending along the banks of the rivers. The forests are extensive, and contain mines of iron, alum, and cobalt; also quarries of marble, freestone, and slate. The manufactures are insignificant. The princes of Schwartzburg are of great antiquity, and divided into the two branches of Sondershausen and Rudolstadt, residing respectively at the towns of these names. Both are members of the Germanic body, under the constitution of 1815; and the territories of both are nearly equal in population and income (that is each numbers about 50,000 subjects). Each county has its cabinet, its treasury, and its distinct courts of justice.

SCHWEIDNITZ, a principality of the Prussian province or government of Reichenbach, bounded on the south by Bohemia, and including a territorial extent of not quite 1000 square miles, partly hilly, and partly level: it produces corn in large quantities; and the flocks of sheep and manufacturing villages are numerous. Inhabitants 180,000.

SCHWEITZ, or **SCHWYZ**, a canton of Switzerland, lying contiguous to the lakes of Zug and Lucerne. Its extent is about 466 square miles, surrounded by Alpine mountains, between which are a few valleys. The chief mountains are Rigi in the south-west corner, above 6000 feet in height; Prugel in the south-east, above 5500; and Mytten, situated between the two, of 6300 feet. The soil and climate of course are fitter for pasturage than for tillage. Manufactures are almost unknown. Inhabitants about 30,000. Here, in the beginning of the fourteenth century, the standard of the Swiss liberty was first erected, and this petty canton had the honor of giving a name to the confederation, and the inhabitants made a spirited but unavailing resistance to the French in 1798, and suffered severely in 1799, when Switzerland became the theatre of war.

SCHWENKFIELDIA, in botany, a genus of the monogynia order, and pentandria class of plants: *cal.* quinquefid: *cor.* funnel-shaped: stigma parted into five: the berry quinquelocular, with a number of seeds. Of this there are three species, viz. *S. aspera*, and *S. cinerea*, both natives of Guiana. *S. hirta* is a native of Jamaica. The leaves of all of them are remarkably rough, and stick to the fingers or clothes.

SCHWENKIA, in botany, a genus of the monogynia order, and diandria class of plants: *cor.* almost equal, plaited at the throat, and glandulous; there are three barren stamina: *caps.* bi-

locular and polyspermous. Species one only, a Guiana plant.

SCHWERIN, the capital of the duchy of Mecklenburg-Schwerin, is situated on the west side of the lake of this name, and surrounded with a rampart. It is divided into the Old Town, the New Town, the Moor, and the suburbs. The grand ducal palace is situated on an island in the lake: it is fortified, and communicates with the town by a draw-bridge; its ornaments are the picture gallery and park. Of Schwerin, the chief buildings and institutions are the high church, formerly a cathedral, two other Lutheran churches, a Catholic church, poor house, orphan house, infirmary, and synagogue. The manufactures are trifling: but brewing and distilling are carried on to some extent. In 1759 this town was taken by the Prussians, after a bombardment, and laid under a heavy contribution; and occupied in 1806 by the French. Population 8500. Sixty miles east of Hamburg, and seventeen south of Wismer.

SCIACCA, or **XACCA**, a large sea-port on the south-west of Sicily, in the Val di Mazzara, called anciently *Thermæ Selinuntiae*, from the warm baths on the east side of the town. It is situated at the foot of St. Calagere, and has a good appearance from a distance. It is still surrounded by a wall, and contains 12,000 inhabitants.

SCIÆNA, in ichthyology, a genus belonging to the order of thoracici. The membrane of the gills has six rays; the opercula and whole head are scaly. There are five species, the following is the most worthy of notice:

S. umbra, sea-crow, or umbre, of a black color, in shape resembling a perch; ventral and anal fins black, as if dyed with ink; back variegated with undulating lines, of dark brown and blue; snout sharp; mouth capacious. This fish is caught in the Mediterranean, and sold under the name of *umbrino* in the markets of Rome.

SCIATHERICAL, *adj.* } Fr. *sciaterique*;
SCIATHER'IC. } Greek *σκιαθηρικος*.

Belonging to a sun-dial.

There were also, from great antiquity, *sciatherical* or sun-dials, by the shadow of a stile or gnomon denoting the hours; an invention ascribed unto Anaximenes by Pliny.

SCIATICA, *n. s.* } Fr. *sciaticque*; Lat. *is-*
SCIAT'IC, } *chiadica vassio*. The hip
SCIAT'ICAL, *adj.* } gout.

Thou cold *sciatica*,
Cripple our senators, that their limbs may halt
As lamely as their manners. *Shakespeare. Timon.*

The Scythians, using continual riding, were generally molested with the *sciatica* or hip-gout.

Brown's Vulgar Errors.
In obstinate *sciatic* pains, blistering and cauteries have been found effectual. *Arbuthnot.*

Racked with *sciatick*, martyred with the stone,
Will any mortal let himself alone? *Pope.*

SCIENCE, *n. s.*, } Fr. *science*; Latin
SCIENTIAL, *adj.* } *scientia*. Knowledge;
SCIENTIF'IC, } that part of our know-
SCIENTIF'ICALLY, *adv.* } ledge which is built
on principles in particular. See below: *scien-*
tial means productive of science: scientific
pertaining to, or indicating or producing demon-
strative knowledge: the adverb corresponding.

No science doth make known the first principles whereon it buildeth; but they are always taken as plain and manifest in themselves, or as proved and granted already, some former knowledge having made them evident.

Hooker.

I present you with a man
Cunning in music and the mathematics,
To instruct her fully in those sciences.

Shakspeare.

If we conceive God's sight or science, before the creation, to be extended to all and every part of the world, seeing every thing as it is, his presence or foresight of any action of mine, or rather his science or sight, from all eternity, lays no necessity on any thing to come to pass, more than my seeing the sun move hath to do in the moving of it.

Hammond.

No where are there more quick, inventive, and penetrating capacities, fraught with all kind of scientific knowledge.

Howel.

From the tree her step she turned;
But first to reverence done, as to the power
That dwelt within; whose presence had infused
Into the plant scientific sap, derived
From nectar, drink of gods.

Milton's Paradise Lost.

The indisputable mathematics, the only science Heaven hath yet vouchsafed humanity, have but few votaries among the slaves of the Stagirate.

Glanville's Seepsis.

Natural philosophy proceeding from settled principles, therein is expected a satisfaction from scientific progressions, and such as beget a sure or rational relief.

Broune's Vulgar Errors.

Science perfects genius, and moderates that fury of the fancy which cannot contain itself within the bounds of reason.

Dryden.

The systems of natural philosophy that have obtained are to be read more to know the hypotheses, than with hopes to gain there a comprehensive, scientific and satisfactory knowledge of the works of nature.

Locke.

Sometimes it rests upon testimony, because it is easier to believe than to be scientifically instructed.

Id.

No man, who first traffics into a foreign country has any scientific evidence that there is such a country, but by report, which can produce no more than a moral certainty; that is, a very high probability, and such as there can be no reason to except against.

South.

Good sense, which only is the gift of Heaven, And, though no science, fairly worth the sev'n. Pope.
So you arrive at truth, though not at science.

Berkley.

SCIENCE, in philosophy, denotes any doctrines deduced from self evident principles. Sciences, according to Locke, may be properly divided as follows:—1. The knowledge of things, their constitutions, properties, and operations; this, in a little more enlarged sense of the word, may be called *φυσική*, or natural philosophy; the end of which is speculative truth. See PHILOSOPHY and PHYSICS.—2. The skill of rightly applying these powers, *πρακτική*. The most considerable under this head is ethics, which is the seeking out those rules and measures of human actions that lead to happiness, and the means to practise them (see MORAL PHILOSOPHY); and the next is mechanics, or the application of the powers of natural agents to the uses of life. See MECHANICS. 3. The doctrine of signs, *σημειωτική*; the most usual of which being words, it is aptly enough termed logic. See LOGIC. This, says Mr. Locke, seems to be the most general, as well as natural, division of the objects of our understand-

ing; for a man can employ his thoughts about nothing but either the contemplation of things themselves for the discovery of truth; or about the things in his own power, which are his actions, for the attainment of his own ends: or the signs the mind makes use of both in the one and the other, and the right ordering of them for its clearer information. All which three, viz. things as they are in themselves knowable, actions as they depend on us in order to happiness, and the right use of signs in order to knowledge, being toto cælo different, they seem to be the three great provinces of the intellectual world, wholly separate and distinct one from another.

SCILLA, the squill, in botany, a genus of the monogonia order and hexandria class of plants, natural order tenth, coronariæ: cor. hexapetalous and deciduous; the filaments filiform. The most remarkable species is the

S. maritima, or sea onion, whose roots are used in medicine. Of this there are two sorts, one with a red and the other with a white root; which are supposed to be accidental varieties, but the white are generally preferred for medicinal use. The roots are large, somewhat oval-shaped, composed of many coats lying over each other like onions; and at the bottom come out several fibres. From the middle of the root arise several shining leaves, which continue green all the winter, and decay in the spring. Then the flower stalk comes out, which rises two feet high, and is naked half way, terminating in a pyramidal thyrse of flowers, which are white, composed of six petals, which spread open like the points of a star. This grows naturally on the sea shores, and in the ditches, where the salt water flows with the tide. Sometimes the roots which are bought for use put forth their stems and produce flowers, as they lie in the druggists' shops. This root is very nauseous to the taste, intensely bitter, and so acrimonious, that it ulcerates the skin if much handled. Taken internally, it powerfully stimulates the solids, and promotes urine, sweat, and expectoration. If the dose is considerable, it proves emetic and purgative. It yields the whole of its virtues to aqueous and vinous menstrua, and likewise to vegetable acids.

SCILLY ISLES, a cluster of small islands and rocks situated in the Atlantic Ocean, nearly ten leagues west of the Land's End. These islands were first called Cassiterides, or the Tin Isles, from their being rich in that metal. Strabo says these islands were ten in number, lying close together, of which only one was uninhabited; the people led an erratic life, lived upon the produce of their cattle, wore an under garment which reached down to their ankles, and over that another, both of a black color, girt round a little below the breast with a girdle, and walked with staves in their hands. The riches of these islands were tin and lead, which, with the skins of their cattle, they exchanged with the Phœnicians for earthenware, salt, and utensils made of brass. Other ancient writers style these islands Hesperides, from their western situation, and Oestrymnides, asserting that the land was extremely fertile, as well as full of mines; and that the people, though very brave, were addicted to commerce, and boldly passed the seas

in their leather coats. The Romans were exceedingly desirous to obtain a share in this commerce, which the Phœnicians as carefully labored to prevent, by concealing their navigation to these islands. At length, however, the Romans prevailed; and Publius Crassus, coming thither, was so well pleased with the industry and manners of the people, that he taught them various improvements, as well in working their mines, which till that time were but shallow, as in carrying their merchandise to different markets. We find them called in the itinerary of Antoninus, Sigdeles; by Sulpitius, Sillenzæ; and by Solinus they are termed Silures. All we know of them after this period is, that their tin trade continued, and that sometimes state prisoners were exiled hither as well as to other islands. When the legions were withdrawn, and Britain with its dependencies left in the power of the natives, these islands shared the same lot with the rest. As to the appellation which from this period prevailed, the ordinary way of writing it is Sully; in records we find it spelt Silly, Silley, or Scilley; but we are told the old British appellation was Sulleh, or Sylleh, which signifies rocks consecrated to the sun. Nothing is recorded of them from the fifth to the tenth century. It is, however, supposed, that within this space they were almost destroyed by an earthquake, attended with a sinking of the earth, by which most of their lowlands, and of course the greatest part of their improvements were covered by the sea, and those rich mines of tin which had rendered them so famous swallowed up in the deep. They have a tradition in Cornwall, that a very extensive tract of country called the Lioness, in the old Cornish Lethousow, supposed to lie between that country and Scilly, was thus lost; and many concurrent circumstances render this probable. In reference to these islands, the case is still stronger; for at low ebbs their stone enclosures are still visible from almost all the isles. The fertility of the islands is mentioned in all the ancient accounts. There is mention made of a breed of wild swine, and the inhabitants had great plenty of fowl and fish. But, notwithstanding the fertility of the country, it was but thinly peopled, because they were liable to be often spoiled by French or Spanish pirates. In time of war, the importance of these islands is conspicuous. In 1651 Sir John Grenville took shelter in them with the remains of the Cornish cavaliers. The depredations committed by his frigates soon made it evident that Scilly was the key of the English commerce; and the clamors of the merchants thereupon rose so high that the parliament was forced to send a fleet of fifty sail, with a great body of land forces on board, under Sir George Ayscue and admiral Blake, who, with great difficulty, and considerable loss, made themselves masters of Trescau and Brehar; where they erected those lines and fortifications near the remains of the old fortress called Oliver's Castle. But at length they granted Sir John Grenville a most honorable capitulation, as the surest means to recover places of such consequence. On the 22nd of October, 1707, several ships were wrecked on these rocks. It was thick foggy weather, and the night was extremely dark,

when the British fleet under Sir Cloudesley Shovel, returning from an unsuccessful expedition against Toulon, mistaking these rocks for land, struck upon them. The Association, in which Sir Cloudesley was, with his lady's two sons, several other persons of distinction, and 800 brave men, struck first, and went immediately to the bottom: the Eagle, under captain Hancock, soon shared the same fate: the Romney and the Firebrand were also lost, but the two captains and twenty-five men were saved. The rest of the fleet escaped, having notice of the fate of these ships. There are five of these islands now inhabited. The largest of these is St. Mary's, which is two miles and a half in length, about one mile and a half in breadth, and between nine and ten miles in compass. On the west side there projects an isthmus. Beyond this there is a peninsula, which is very high; and upon which stands Star Castle, built in 1593, with some outworks and batteries. On these there are upwards of sixty pieces of cannon mounted; and for the defence of which there is a garrison. Under the castle barracks and lines stands Hugh Town, built so low as to be subject to inundations. A mile within land stands Church Town, which, besides the church consists of a few houses only, with a court house. About two furlongs east of this lies the Old Town, where there are more houses, and some of them very convenient dwellings. Treslaw lies two miles directly north of St. Mary's. It was formerly styled St. Nicholas's Island; and was at least as large as St. Mary's, though at present about half the size. The remains of the abbey are yet visible. There are about ten stone houses, with a church, which compose the Dolphin Town; an old castle built in the reign of Henry VIII., called Oliver's Castle; and a block-house raised out of the ruins of that castle. This island is noted for producing plenty of the finest samphire, and the only tin works that are now visible are found in it. A mile to the east of Trescau, and about two miles from the most northern part of St. Mary's, lies the isle of St. Martin's, not much inferior in size to that of Trescau. St. Martin's produces corn, affords the best pasture in these islands and feeds a great number of sheep. St. Agnes, which is also called the Light-house Island, lies nearly three miles south-west of St. Mary's: and is, though small, well cultivated, fruitful in corn and grass.—The only inconvenience is the want of good water; the great advantage consists in having several good coves or small ports, where boats may lie in safety. The light-house is the principal ornament and great support of the island, which stands on the most elevated ground, built with stone from the foundation to the lantern, which is fifty-one feet high. Brehar, or, as pronounced, Bryer Island, lies north-west of St. Mary's, and west of Trescau, to which, when the sea is very low, they sometimes pass over on the sand. It is very mountainous, abounds with sea and land fowls, excellent samphire, and a great variety of medical herbs. The air of these islands is equally mild and pure; their winters are seldom subject to frost or snow. When the former happens it lasts not long; and the latter never lies upon the ground. The heat of their

summers is much abated by sea-breezes. They are indeed frequently incommoded by sea fogs, but these are not unwholesome. The soil is very good, and produces grain of all sorts (except wheat, of which they had anciently plenty) in large quantities. They still raise a little wheat, but the bread made of it is unpalatable. They eat, for this reason, chiefly what is made of barley. Potatoes prosper, and roots of all kinds, pulse, and sallads, grow well; dwarf fruit-trees, gooseberries, currants, raspberries, &c., under proper shelter, thrive exceedingly; but they have no trees. They have wild fowls of all sorts, from the swan to the snipe; and a particular kind called the hedge chicken, which is not inferior to the ortolan: also tame fowls, puffins, and rabbits, in great numbers. Their black cattle are small, but well tasted, though they feed upon sea-weed. Their horses are small, but strong and lively. They have also large flocks of fine sheep, whose fleeces are good, and their flesh excellent. St. Mary's harbour is very safe and capacious, having that island on the south; the eastern islands, with that of St. Martin, on the east; Trescaw, Brehar, and Samson, to the north; St. Agnes, and several small islands, to the west. Ships ride here in three to five fathoms water, with good anchorage. Into this harbour there are four inlets, viz. Broad Sound, Smith's Sound, St. Mary's Sound, and Crow Sound; so that hardly any wind can blow with which a ship of 150 tons cannot safely sail through one or other of them, Crow Sound only excepted, where they cannot pass at low water, but at high tide there is from sixteen to twenty-four feet in this passage. There are also two other harbours, viz. New Grynsey, which lies between Brehar and Trescaw, where ships of 300 tons may ride securely; and Old Grynsey, between Trescaw, St. Helen's, and Theon, for smaller ships. The former is guarded by the batteries at Oliver's Castle; the latter by the blockhouse on the east side of Trescaw, called Dover. In this harbour, and in all the little coves of the several isles, prodigious quantities of mackerel may be caught in their season; also soal, turbot, and plaice; and ling, which, from its being a thicker fish, mellow, and better fed, is very justly preferred to any caught nearer our own coasts. Salmon, cod, and pollock, are in great plenty, and pilchards in vast abundance. The alga marina, fucus or sea weed, serves to feed both their small and great cattle, manures their lands, is burned into kelp, is sometimes preserved, sometimes pickled, and is in many other respects very beneficial to the inhabitants. The civil government is administered by the court of twelve; in which the commander in chief, the proprietors' agent, and the chaplain, have their seats in virtue of their offices: the other nine are chosen by the people. These decide or compromise all differences; and punish small offences by fines, whippings, &c.; except for the soldiers, there is no prison in the islands. But, in case of capital offences, the criminals may be transported to the county of Cornwall, and there brought to justice. The great importance of these islands arises from their advantageous situation, as looking equally into St. George's Channel, which divides Great Bri-

tain from Ireland, and the English Channel, which separates Britain from France. For this reason, most ships bound from the southward strive to make the Scilly Islands, to steer their course with greater certainty. It is very convenient also for vessels to take shelter amongst them; which prevents their being driven to Milford Haven, or some port in Ireland, if the wind is strong at east; or, if it blows hard at north-west, from being forced back into some of the Cornish harbours, or even on the French coasts.

SCIMITAR, *n. s.* See CIMETER. A short sword with a convex edge.

I'll heat his blood with Greekish wine to-night,
Which with my scimitar I'll cool to-morrow.

Shakspeare.

SCINTILLATION, *n. s.* Lat. *scintillatio*. The act of sparkling; sparks emitted.

He saith the planets' scintillation is not seen, because of their propinquity. *Glanville's Scæpis.*

These scintillations are not the accension of the air upon the collision of two hard bodies, but rather the inflammable effluences discharged from the bodies collided. *Browne.*

With airy lens the scattered rays assault;
And bend the twilight round the dusky vault;
Ride, with broad eye and scintillating hair,
The rapid fire-ball through the midnight air.

Darwin.

SCIO, the ancient Chios, an island of the Grecian Archipelago, thirty miles in length, from ten to eighteen in breadth, and ninety in circumference, composed of high mountains, which are rendered, by the industry of the inhabitants, very productive. The plain, extending for some leagues round the town, is celebrated for its extraordinary beauty and fertility. Here also are some quarries of a reddish freestone. The air is good, though, from its great communication with other places, it is much exposed to the plague. Corn raised is not sufficient for the consumption, and herbage is so scarce that they give their cotton shrubs to the cattle after the cotton is gathered, and preserve the dried leaves of the vines for them in winter. This want renders all animal food dear, except goat's flesh. See GREECE.

SCIO, the capital of the above island, situated in a shallow bay on its eastern coast. Here is a good road for the largest shipping, and a mole, which forms a tolerable harbour. The castle is a large Venetian fort, which has been used as a place of confinement for state prisoners. To the east of the present city is the Palæo Castro, or old town. The population is stated at 35,000. Long. 25° 54' E., lat. 38° 23' N.

SCIOLIST, *n. s.* Lat. *sciolus*. One who knows many things superficially.

I could wish these sciolous zealotists had more judgment joined with their zeal. *Howel.*

'Twas this vain idolizing of authors which gave birth to that silly vanity of impertinent citations; these ridiculous fooleries signify nothing to the more generous discerners, but the pedantry of the affected sciolists. *Glanville's Scæpis*

These passages were enough to humble the presumption of our modern sciolists, if their pride were not as great as their ignorance. *Temple.*

SCIOMACHY, *n. s.* Fr. *schiamachie*; Gr. *σκια* and *μαχη*. Battle with a shadow. It should be written *sciamachy*.

To avoid this *sciomachy*, or imaginary combat of words, let me know, Sir, what you mean by the name of tyrant?
Covley.

SCION, *n. s.* Fr. *scion*. A small twig taken from one tree to be engrafted into another.

Sweet maid, we marry

A gentle *scion* to the wildest stock;
And make conceive a bark of baser kind

By bud of nobler race. *Shakspeare. Winter's Tale.*

March, is drawn, in his left hand blossoms, and *scions* upon his arm. *Peacham.*

The *scions* are best of an old tree.

Mortimer's Husbandry.

SCIOPIUS (Gaspar), a learned German writer of the seventeenth century, born at Neumark, in the Upper Palatinate, in 1576. He studied at the university, and, at the age of sixteen, became an author. He abjured the system of the Protestants, and became a Roman Catholic about 1559. He possessed all those qualities which fitted him for making a distinguished figure in the literary world; imagination, memory, profound learning, and invincible impudence. But he neither showed respect to his superiors, nor decency to his equals. Joseph Scaliger, above all others, was the object of his satire. That learned man, having drawn up the history of his own family, and deduced its genealogy from princes, was severely attacked and ridiculed by Sciopius. Scaliger in his turn wrote a book entitled *The Life and Parentage of Gaspar Sciopius*. This inflamed Sciopius still more: he collected all the calumnies thrown out against Scaliger, and formed them into a huge volume. He treated with great contempt James I., king of England, in his *Ecclesiasticus*, &c., and in his *Collyrium Regium Britanniae Regi, graviter ex oculis laboranti munere misum*. He had also the audacity to abuse Henry IV. of France in a most scurrilous manner, on which account his book was burned at Paris. Provoked by his insolence to their sovereign, the servants of the English ambassador assaulted him at Madrid, and chastised him severely. For his furious assaults upon the most eminent men he was called the Cerberus of literature. He died on the 19th November, 1649, aged seventy-four, at Padua, the only retreat which remained to him. 400 books are ascribed to him, which discover great genius and learning. The chief of these are, 1. *Verisimilium Libri IV.* 1596, in 8vo. 2. *Commentarius de Arte Critica*, 1661, in 8vo. 3. *De sua ad Catholicos Migratione*, 1660, in 8vo. 4. *Notationes Criticæ in Phædrum, in Priapeia, Patavii*, 1664, in 8vo. 5. *Suspectarum Lectionum Libra V.* 1664, in 8vo. 6. *Classicum belli sacri*, 1619, in 4to. 7. *Collyrium regium*, 1611, in 8vo. 8. *Grammatica Philosophica*, 1644, in 8vo. 9. *Relatio ad Reges et Principes de Stratagematibus Societatis Jesu*, 1641, in 12mo. This last was published under the name of Alphonso de Vargas.

SCIOTO, a river of the United States, which rises in Ohio, near the sources of the Sandusky. Its course is east by south; and it passes by Columbus, Coclerville, and Chillicothe, and runs

into the Ohio, at Portsmouth, in lat. 38° 34' N., 352 miles below Pittsburg. It is navigable for large keel boats to Columbus, and for canoes almost to its head. There is a convenient portage between it and the Sandusky of four miles.

SCIPIO, the cognomen of a celebrated family in ancient Rome, who were a branch of the Cornelian family, and by their bravery and other virtues rose to the highest honors in the republic. This surname was derived from *scipio*, a staff, because one of their ancestors had led his father when blind, and been to him as a walking staff.

SCIPIO (Cnæus Cornelius), Asina, was consul A. U. C. 492, and 498. During his first consulship he was defeated in a naval battle, and lost seventeen ships; but in 493 he took Aleria, in Corsica, and defeated the Carthaginians under Hanno, in Sardinia, took 200 of their ships, and the city of Panormum in Sicily.

SCIPIO (Cnæus), and **SCIPIO** (Publius), sons of Asina. In the beginning of the second Punic war Publius was sent with an army into Spain to oppose Hannibal; but, hearing that Hannibal had gone to Italy, he endeavoured by quick marches to stop him. Hannibal, however, defeated him near the Ticinus, where he would have lost his life had not his son (afterwards the famed Africanus) bravely defended him. He again went into Spain, where he gained several memorable victories over the Carthaginians and inhabitants. His brother Cnæus shared the command with him, but, though at first successful, their confidence proved their ruin. They divided their army, and soon after Publius was furiously assailed by the Carthaginians under Mago and the two Asdrubals. Publius was killed, and his army cut to pieces. The victors immediately fell upon Cnæus, from whom 30,000 Celtiberians had just revolted. He retired to a hill and defended himself bravely, but was overpowered by numbers.

SCIPIO (Publius Cornelius), surnamed Africanus, was the son of Publius. He first distinguished himself at the battle of Ticinus, as above mentioned; and, after the fatal battle of Cannæ, when some Romans proposed to abandon Italy to the victors, he made his countrymen swear eternal fidelity to Rome, and enact that the first who should repeat such a proposal should be put to death. So early as in his twenty-first year he was made ædile. On the slaughter of the Roman armies under his father and uncle, Scipio was sent to avenge their deaths; and within four years he expelled the Carthaginians from Spain, and reduced it to a Roman province. After these signal victories he was called home to defend Rome against Hannibal, but gave it as his opinion that Hannibal could only be conquered in Africa. On this he was elected consul and sent to Africa, where his conquests were as rapid as in Spain; the Carthaginians under Asdrubal were totally routed; and Hannibal called home from the gates of Rome. These two great generals met soon after, but could come to no terms of agreement. The battle of Zama was therefore fought, where Scipio was so successful that 20,000 Carthaginians were killed, and as many made prisoners; while the Romans lost only 2000. Peace was demanded, and granted, but

upon the most humiliating terms. On his return to Rome Scipio was honored with a triumph, and with the agnomen of Africanus. In the conquest of Spain a princess of uncommon beauty was taken prisoner. Scipio, hearing that she had been betrothed to a young Spanish prince, not only restored her inviolate to her parents and lover, but sent rich presents along with her. By his generous conduct he made not only that prince, but Masinissa, Syphax, and others, the friends of Rome. He married Æmilia, daughter of the celebrated Paulus Æmilius, who fell at the battle of Cannæ; and died at his country seat at Liternum, about A. A. C. 181, aged only fifty-one. His widow raised a mausoleum to his memory, and placed upon it his statue with that of Ennius. The Romans venerated, when dead, the virtues of the man they were unjustly jealous of when living.

SCIPRO (Lucius Cornelius), surnamed Asiaticus, was the brother of the preceding, and accompanied him in his expeditions into Spain and Africa. He was rewarded with the consulship for his services, A. U. C. 562: and was sent against Antiochus, king of Syria; whom, with the assistance and advice of his brother Africanus, he completely defeated in a battle at Magnesia, near Sardis, wherein Antiochus lost 50,000 infantry and 4000 cavalry, and soon after submitted. On his return to Rome, Scipio was decreed a triumph and the surname of Asiaticus. But, notwithstanding his victories and disinterested conduct, Cato the censor accused him of having received money from Antiochus, which he had not accounted for. This produced an enquiry, and a prejudiced judge decided against Scipio and his two lieutenants. But, upon confiscating his property, the whole effects of Scipio did not amount to near the sum he was charged with. His friends and tenants, in this distress, made him liberal offers, which he generously declined. He was soon sent to settle the disputes between Eumenes and Seleucus, which he accomplished; and, on his return, the Romans, ashamed of their former injustice, rewarded his merits with such uncommon liberality, that Asiaticus was enabled to celebrate games in honor of his victory for ten successive days. He died about A. A. C. 170.

SCIPRO (Publius Cornelius), Æmilianus, the son of Paulus Æmilius, the conqueror of Perseus, was adopted by his cousin Publius Cornelius Scipio, the son of Scipio Africanus and Æmilia. He first appeared in the Roman army under his father; and distinguished himself as a legionary tribune in Spain, where he killed a Spanish giant, and obtained a mural crown at the siege of Intercatia. Soon after he was made ædile, and elected consul, though under the usual age qualifying for these high offices. He was then sent to Africa to finish the third Punic war, which he carried on and completed, till he had accomplished the inhuman decree of Cato and the senate, by the total destruction of that city republic, and people, A. A. C. 147. Æmilianus is said, in the midst of his victory, to have wept over the miseries of this unfortunate people; it had been better had he saved them. Another commission, equally horrible and bloody, the

same Scipio was, a few years after this, employed by the senate to execute upon the brave but unfortunate inhabitants of Numantia in Spain; and which he executed with equal success and equal horrors, A. A. C. 133. For these conquests Æmilianus was honored with two triumphs, and the double titles of Africanus junior, and Numantinus. Yet his popularity was short. He incurred the displeasure of the people by vindicating the murder of his cousin and brother-in-law, their favorite, Tiberius Gracchus. He was afterwards accused by his enemies of aspiring to the dictatorship. Not long after he was found strangled in his bed; which was said to have been done by the triumviri, Papirius Carbo, Caius Gracchus, and Fulvius Flaccus, on account of his opposition to the Sempronian Law; and his wife Sempronia was accused of having admitted the assassins into his bed chamber. This murder was committed A. A. C. 128.

SCIPRO (C. Cornelius, Nasica), was the son of Cnæus Scipio. He was at first refused the consulship, though supported by the interest of Africanus, but afterwards obtained it; when he was sent against the Boii, whom he conquered, and was decreed a triumph. He was also successful in an expedition into Spain. It is recorded to his honor, that when the image of the goddess Cybele was brought from Phrygia, the senate decreed, that one of their body, who was most eminent for purity of morals, should be delegated to meet the goddess at Ostia, and Nasica was appointed, as best suiting that character. Nasica also distinguished himself as an orator, and the friend of persecuted virtue, by his zeal in confuting the invidious calumnies invented against his relations Africanus and Asiaticus.

SCIRPUS, in botany, rush grass, a genus of the monogynia order, and triandria class of plants, natural order third, calamariæ: glumes paleaceous, and imbricated all round: cor. none, and only one beardless seed. Species sixty-seven, nine of which are common in the bogs and marshes of our own country.

SCIRRHUS, *n. s.* Fr. *scirrhe*. This should be written *skirrh*, says Johnson, not merely because it comes from *σκήρρος*, but because *c* in English has before *e* and *i* the sound of *s*. See SKEPTICK. An indurated gland.

Any of these three may degenerate into a *scirrhus*, and that *scirrhus* into a cancer. *Wiseman.*

How they are to be treated when they are strumous, *scirrhous*, or cancerous, you may see. *Id.*

The difficulty of breathing, occasioned by *scirrhotisities* of the glands, is not to be cured.

Arbuthnot on Diet.

SCIRRHUS, in surgery and medicine, is a hard tumor of any part of the body, void of pain, and exceedingly apt to degenerate into cancers. See SURGERY.

SCIS'SOR, <i>n. s.</i> , or	} This word is variously written, as it is supposed to be derived by different writers; of which some write <i>cissors</i> , from <i>caedo</i> or <i>incido</i> ; others <i>scissors</i> , from <i>scindo</i> ; and some <i>cisars</i> , <i>cizars</i> , or <i>scissars</i> , from Fr. <i>ciseaux</i> ; Thomson says Fr. <i>ciseaux</i> , from Lat. <i>scindo</i> . A
Scis'sors,	
Scis'sible, <i>adj.</i>	
Scis'sile,	
Scis'sion, <i>n. s.</i>	
Scis'sure.	

small pair of shears: scissible and scissile mean capable of being cut by any instrument of this kind: scission, the act of cutting: scissure, the cut made.

His beard they have singed off with brands of fire;

And ever, as it blazed, they threw on him
Great pails of puddled mire to quench the hair:
My master preaches patience to him, and the while
His man with *scissars* nicks him for a fool.

Shakespeare.

The differences of impressive and not impressive, scissible and not scissible, and many other passions of matter, are plebeian notions.

Bacon.

The breach seems like the *scissures* and ruptures of an earthquake, and threatens to swallow all that attempt to close it, and reserves its cure only for omnipotence.

Decay of Piety.

Wanting the *scissars*, with these hands I'll tear,
If that obstruct my flight, this load of hair.

Prior.

When the lawyers and tradesmen brought extravagant bills, Sir Roger wore a pair of *scissars* in his pocket, with which he would snap a quarter of a yard off nicely.

Arbutnot.

Animal fat is a sort of amphibious substance, scissible like a solid, and resolvable by heat.

Id.

Nerves may be wounded by scission or puncture: the former way they are usually cut through, and wholly cease from action,

Wiseman's Surgery.

SCIURUS, in botany, a genus of the monogynia order, and diandria class of plants: CAL. quinquentenate: COR. bilabiated: the filaments are barren: CAPS. five, and joined together: bivalved, unilocular, with one seed. Of this there is only one species, viz.

S. aromatica, a native of Guiana.

SCURUS, in zoology, the squirrel, a genus of quadrupeds belonging to the order of glires. It has two fore-teeth in each jaw, the superior ones shaped like wedges, and the inferior ones sharp pointed. Some species of this genus are provided with hairy membranes extended from the fore to the hind legs, by which they are enabled to bear themselves in the air, when leaping from one tree to another; from this circumstance the genus is very properly broken into two subdivisions, distinguished by the want or possession of this membrane. The former are called *sciuri scandentes*, or climbing squirrels; the latter *petauri*, or flying squirrels. Mr. Kerr enumerates thirty-one species, and twelve varieties of the former; and eight species with two varieties of the latter. The following are the chief:—

1. *S. Abyssinicus*, the Abyssinian squirrel, is of a rusty black color on the back; the fore feet and belly gray; the tail one foot and a half long. It inhabits Abyssinia. It is thrice the size of the common species; the nose and soles of the feet are flesh-colored. One was purchased by Thevenot in Arabia from an Abyssinian. It was good-natured and sportive; eat of every thing but flesh, and cracked the hardest almonds.

2. *S. æstuans*, the Brazilian squirrel, is of a dusky color, tinged with yellowish on the upper part of the body; the inside of the legs and belly yellow, with a white stripe along the middle of the belly; the tail is round and annulated with black and yellow. They inhabit Brasil and Guiana. The ears are plain and roundish, the fur soft, the head and body eight inches, the tail ten.

3. *S. albipes*, the white-legged squirrel, has ears slightly tufted with black hair; the head, upper parts of the body, sides, and toes, reddish brown; the under parts and legs white, as well as the face, nose, under side of the neck, inside of the ears, breast, belly, fore legs, and inside of the hind thighs; the tail is long and covered with dusky hair, much shorter than in the common species. They inhabit Ceylon.

4. *S. anomalus*, the Georgian squirrel, is of a yellow color, mixed with dusky on the upper parts and tail; the under parts a dull tawny; the ears plain and rounded, flame yellow, whitish within; and the circumference of the mouth is white; the tip of the nose black; the cheeks tawny; the whiskers and region of the eyes dusky. This species is larger than the common squirrel; they inhabit Georgia in Asia.

5. *S. bicolor*, the Javan squirrel, has the upper parts of the body black, the under tawny; the thumbs are provided with large round flat nails; the ears are plain, hairy, and sharp pointed. The head and body are about a foot long; the tail is a foot, tipped with black; the under parts are light brown; the hind feet black; the claws on the fore feet sharp, except the nail on the fifth toe; the thumbs are very short. They inhabit Java.

6. *S. Capensis*, the Cape squirrel, is of a pale ferruginous color on the upper parts of the body, mixed with black; with a white line from the shoulder, along each side; the tail is black in the middle, and hoary at the sides; the ears are scarcely apparent, whence M. Pennant calls it the earless dormouse. This species never climbs trees, but burrows in the ground, forming a warm nest, with a round hole; in which it lodges, closing up the orifice. It feeds on bulbous roots, especially potatoes; it is very tame, and never offers to bite; walks on its hind feet; often lies flat on its belly, and flirts up its tail. The head is flat, with a blunt nose, full black eyes, divided upper lip, and long whiskers; the belly and feet a dirty white; there is a white line above each eye; the toes are long and distinct, with a large knob on each foot for a thumb; the claws are long; the hind legs black and naked behind. It is the size of the common squirrel, but much broader and flatter. They are found near Mount Sneeberg, 800 miles north of the Cape of Good Hope.

7. *S. cinereus*, the gray squirrel, with plain ears; hair of a dull gray color, mixed with black, and often tinged with dirty yellow; belly and inside of the legs white; tail long, bushy, gray, and striped with black; size of a half grown rabbit. It inhabits the woods of northern Asia, North America, Peru, and Chili; is very numerous in North America, and does incredible damage to the plantations of maize, running up the stalks and eating the young ears; they are proscribed by the provinces, and a reward of threepence per head given for every one that is killed. They make their nests in hollow trees, with moss, straw, wool, &c., feed on maize in the season, and on pine-cones, acorns, and mast of all kinds; form holes underground, and there deposit a large stock of winter provision; ascend from the trees, and visit their magazines

when in want of meat; are particularly busy at the approach of bad weather; during the cold season keep in their nest for several days together; seldom leap from tree to tree, only run up and down the bodies; their hordes are often destroyed by swine; and, when their magazines are covered with deep snow, the squirrels often perish for want of food; they are not easily shot, nimbly changing their place when they see the gun levelled; have the actions of the common squirrel; are easily tamed; and their flesh is esteemed very delicate. Their furs, which are imported under the name of *petit-gris*, are valuable, and used as linings to cloaks.

8. *S. erythræus*, the ruddy squirrel, is of a yellow color, mixed with dusky, on the upper parts; the under parts blood-red mixed with tawny; the tail the same, with a longitudinal blackish stripe; the ears slightly tufted. It is larger than the common squirrel; the fore paws have a large protuberance instead of a thumb. They inhabit India.

9. *S. flavus*, the fair squirrel, with the body and tail of a flaxen color; of a very small size, with plain round ears and rounded tail. Inhabits the woods near Amadabad, the capital of Guzerat, in great abundance, leaping from tree to tree. Linné says it is an inhabitant of Carthage in South America.

10. *S. Hudsonius*, the Labradore squirrel, is of a ferruginous color along the back, the sides paler, and the belly ash color mottled with black; the tail is like the back, but barred and tipped with black; the ears are plain. It is smaller than the common squirrel, and apt to vary in color to a gray. They inhabit the pine forests of Labradore, and round Hudson's Bay.

11. *S. Indicus*, the Bombay squirrel, is of a dull purple color on the head, back, sides, and upper parts of the legs and thighs; the belly and lower parts yellow; the tail tipped with orange; the ears tufted. The head and body are sixteen inches long; the tail seventeen. They inhabit India, near Bombay.

12. *S. Madagascarensis*, the Madagascarean squirrel, in the slowness of its pace and general manners resembles the sloth; but in the form of its tail, the number and form of its toes, five on each foot, and the number and arrangement of its teeth, it is more nearly allied to the squirrel. It lives in holes under ground; is slothful, timid, and sleeps much; it feeds chiefly on worms, picked from the hollows of trees by its toes. The middle toe on the fore feet is very long and naked; the thumb on the hind feet has a flat rounded nail. The ears are large, flattened, black, and covered thickly with rough hair; the face has two bunches of hair above the eyes, on the nose and cheeks, and under the chin; the fur is of two sorts, an under downy fleece-like wool, of a pale tawny, with longer straight black hairs intermixed, the face and throat are of a pale whitish tawny color; the tail is flattened, about eighteen inches long, covered with thick set white hair from the base to the middle, and the rest black; the toes on the fore paws are long; four of the claws on the hind feet are hooked and sharp-pointed. They inhabit the east side of Madagascar.

13. *S. maximus*, the Malabar squirrel, is of a red brown color on the upper parts; the under parts and tail black; the ears lightly tufted. It is about the size of a large cat; has small erect ears, long hair, strong black claws; and a small protuberance instead of a thumb on the fore paws, with a flat nail. They inhabit the Malabar coast, and province of Mahe in India; feed chiefly on the milk of the cocoa nut, and have a loud sonorous voice.

14. *S. niger*, the black squirrel, with plain ears; sometimes wholly black, but often marked with white on the nose, the neck, or end of the tail; the tail shorter than that of the cinereus, the body equal. They inhabit the north of Asia, North America, and Mexico; breed and associate in separate troops; are equally numerous with the cinereus, commit as great ravages among the maize, make their nests in the same manner, and form magazines for winter food. The finest are taken near the lake Baikal, which are the best in all Siberia; these continue black the whole year, the others grow rusty in summer.

15. *S. palmarum*, the palm squirrel, is of a mixed black and red color, with three longitudinal yellow stripes on the back and sides; the tail is encircled with coarse dirty yellow hair, and is barred with black.—Shreber. This species inhabit the hot regions of Asia and Africa; live much on cocoa nuts, and are fond of the sury, or palm wine, whence the Dutch call them *suricatsjje*, or little cats of the sury. They are only three inches long; the tail is as long, and is carried erect, the ears are short, broad, and fringed with hair at the edges; an obscure pale yellow stripe runs along the back, and other two on each side. The hair on the head, back, and sides, is a mixed black and red; on the thighs and legs redder; on the belly pale yellow.

16. *S. petaurus australis*, the southern flying squirrel, is the largest and most elegant of all the flying squirrels; its most remarkable characteristic is the rounded thumbs or great toes of the hind feet, which are furnished with a flattened nail, while all the other toes, five to each foot, have sharp hooked claws; the two toes next this are united by the skin, but have separate claws; the color is a fine sable, or deep gray-brown, on the upper parts, darkest on the middle of the back, and the under parts are nearly white; the edges of the membrane are somewhat scalloped, and of a lighter color; the fur is exquisitely soft and beautiful; the tail is long and bushy, thickly clothed with very soft loose hair, longest towards the outer end; the ears are longish, and there is a black streak over each eye. They inhabit New South Wales.

17. *S. petaurus petaurista*, the Indian flying squirrel, or flying cat, has a tail longer than the body, flattened, and very full of long hair. This species is eighteen inches long from nose to rump; the head is rounded; the whiskers and claws are black; the female has six teats on the breast and belly; the eyes have long narrow pupils like those of a cat. They inhabit the islands of the Indian Ocean. There are two varieties.

18. *S. petaurus sagitta*, the arrow or Java flying squirrel, with a small round head, cloven

upper lip; small blunt ears, two small warts at the utmost corner of each eye, with hairs growing out of them: neck short: four toes on the fore feet, and, instead of a thumb, a slender bone two inches and a half long, lodged under the lateral membrane, serving to stretch it out: thence to the hind legs extends the membrane, which is broad, and a continuation of the skin of the sides and belly: there are five toes on the hind feet; and on all the toes sharp compressed bent claws: the tail is covered with long hairs disposed horizontally; color of the head, body, and tail, a bright bay, in some parts inclining to orange: breast and belly of a yellowish-white: length, from nose to tail, eighteen inches; tail fifteen. They inhabit Java, and others of the Indian islands: leap from tree to tree as if they flew, and will catch hold of the boughs with their tails. Niewhoff, p. 354, describes this under the name of the flying cat, and says the back is black.

19. *S. petaurus volans*, the European flying squirrel, has round naked ears, full black eyes, and a lateral membrane from the fore to the hind legs: tail with long hairs disposed horizontally, longest in the middle; its color above, a brownish ash, beneath, white tinged with yellow. They are much less than the common squirrel: inhabit Finland, Lapland, Poland, Russia, and North America; live in hollow trees; sleep in the day; during the night are very lively; are gregarious, numbers being found in one tree; leap from bough to bough, sometimes at the distance of ten yards. This action has improperly been called flying, but the animal cannot go in any other direction than forward; and even then cannot keep an even line, but sinks considerably before it can reach the place it aims at: sensible of this, the squirrel mounts the higher in proportion to the distance it wishes to reach: when it would leap, it stretches out the fore-legs, and, extending the membranes, becomes specifically lighter than it would otherwise be, and thus is enabled to spring farther than other squirrels that have not this apparatus. When numbers leap at a time, they seem like leaves blown off by the wind. Their food is the same as the other squirrels. They are easily tamed; and bring three or four young at a time.

20. *S. petaurus volucella*, the American flying squirrel, is of a brownish color on the upper parts; the belly white, tinged with yellow; the tail is flattened, broadest at the middle, and ends in a point. This species is easily tamed; it is about five inches long from nose to rump, with a round tail of four inches; the head is thickish; the eyes are black, large, and prominent; the ears roundish, transparent, almost naked, of a brownish ash color; the whiskers black, and longer than the head; the neck is short. The fur is very fine and soft, of an ash color, with white tips on the upper parts; on the lower, white and ash all around. The membrane extends from the ears to the fore and hind legs, adhering as far as to the toes; it includes a peculiar bone which is attached to the wrist, and helps to stretch it out in flying; on the hind legs it extends to the ancles. By this membrane the animal supports itself in the air, as if flying, for a considerable way; and it swims nearly in the

same manner. This species inhabit the temperate and warm parts of North America, living in societies in the woods, and feeding on fruits and seeds, which they procure in the evening, as they sleep much during the day.

21. *S. striatus*, the ground-squirrel, with plain ears; ridge of the back marked with a black streak; each side with a pale yellow stripe, bounded above and below with a line of black: head, body, and tail, of a reddish brown; the tail the darkest; breast and belly white; nose and feet pale red; eyes full. They inhabit the north of Asia, but are found most numerous in the forests of North America. They never run up trees except they are pursued, and find no other means of escaping; they burrow and form their habitations under ground, with two entrances, that they may get access to the one in case the other is stopped up. Their retreats are formed with great skill, in form of a long gallery, with branches on each side, each of which terminates in an enlarged chamber, as a magazine to store their winter provisions in; in one they lodge the acorns, in another the maize, in a third the hickory nuts, and in the last their favorite food the clinquapin chestnut. They very seldom stir out during winter, as long as their provisions last; but, if these fail, they will dig into cellars where apples are kept, or barns where maize is stored, and do a great deal of mischief; but at that time the cat destroys great numbers, and is as great an enemy to them as to mice. During the maize harvest they are very busy in biting off the ears, and filling their mouths so full with the corn that their cheeks are quite distended. They give great preference to certain food; for if, after filling their mouths with rye, they happen to meet with wheat, they fling away the first, that they may indulge in the last. They are very wild, bite severely, and are scarcely ever tamed; the skins are of little use, but are sometimes brought over to line cloaks.

22. *S. vulgaris*, the common squirrel, has ears terminated with long tufts of hair; large, lively, black eyes; head, body, legs, and tail, of a bright reddish brown; breast and belly white; hair on each side the tail lies flat. In Sweden and Lapland it changes, in winter, into gray. In Russia it is sometimes found black. In many parts of England there is a beautiful variety, with milk-white tails. This species inhabit Europe and North America, the northern and the temperate parts of Asia: and a variety is even found as far south as the isle of Ceylon. It is a lively, active animal; lives always in woods: in the spring, the female is seen pursued from tree to tree by the males, feigning an escape from their embraces; makes its nest of moss and dried leaves between the fork of two branches; brings from three to seven young at a time; has two holes to its nest; stops up that on the side the wind blows, which was remarked by Pliny; lays in a hoard of winter provision, such as nuts, acorns, &c.; in summer, feeds on buds and young shoots; is particularly fond of those of fir, and the young cones; sits up to eat, and uses its fore-feet as hands; covers itself with its tail; leaps to a surprising distance; when disposed to cross a river, a piece of wood often serves as its boat, its tail

forming the sail. Boys frequently nurse this beautiful and active animal under cats. 'There are three creatures, the squirrel, the field-mouse, and the bird called the nuthatch, which live much on hazel nuts; and yet they open them each in a different way. The first, after rasping off the small end, splits the shell in two with his long fore feet, as a man does with his knife; the second nibbles a hole with his teeth, as regular as if drilled with a wimble, and yet so small that one would wonder how the kernel can be extracted through it: while the last pecks an irregular ragged hole with its bill; but as this artist has no paws to hold the nut firm while he pierces it, like an adroit workman he fixes it, as it were in a vice, in some cleft of a tree, or in some crevice, when, standing over it, he perforates the stubborn shell.'—White's Selborne. They are preyed on by martins and other animals of the mustela and viverra tribes: also by serpents and birds of prey. Mr. Kerr describes six varieties.

23. *S. vulpinus*, the vulpine or fox squirrel, of the planter, is of a large size, and ruddy color, mixed with black and dirty white, and has plain ears. It inhabits Virginia, and is the size of a small rabbit. The fur is coarse; the throat and insides of the thighs and legs are black; the tail is shorter than that of the common squirrel; and of a dull yellow color, mixed with black and reddish at the tip, as are also the ears.

SCLAVI, or **SLAVI**, the ancient inhabitants of Slavonia or Slavonia. This name originally signified illustrious.

SCLAVONIA, a province in the south of the Austrian empire, which, in official documents, bears the title of the kingdom of Slavonia. It is long and narrow, the Drave and Danube running along its northern frontiers, and separating it from Hungary; while the Save, also a great river, extends along its southern confines, dividing it from Turkey. Its area is about 6600 square miles; population about 530,000. It lies between 45° and 46° of N. lat.; and, being a frontier province, its inhabitants are exempt from taxes, but subject (see the article HUNGARY) to military duty. The mountainous tracks are barren in dry years, and in the low grounds there are many districts too marshy for cultivation; but the greatest part of the country produces wheat, barley, maize, flax, hemp, and madder. The fruits are chestnuts, plums, and vines; also figs, almonds, and other products of a warm climate. The forests contain the finest oak. Domestic animals are reared with little care, and vast numbers of hogs are found in the woods. Of wild animals, the bear, the wolf, the fox, the polecat, and the vulture are common. Equal mischief is experienced from insects, which multiply surprisingly in the heats of summer, and it sometimes happens that a continuance of southerly winds brings a swarm of locusts from Turkey. The mineral treasures of Slavonia have not been explored. The only minerals known to exist in large quantities are salt, limestone, sulphur and coal. The manufactures are insignificant.

Slavonia formed part of the ancient Illyria, and derives its present name from a tribe of Sclavi or Slavi, who settled here in the sixth

century. Then the Venetians, having acquired possession of Dalmatia, extended their conquests hither. It remained alternately subject to them and to the Hungarians, until overrun by the Turks, in whose possession it continued about 170 years.

SCLERANTHUS, in botany, German knot-grass, or Knawel, a genus of the digynia order, and dodecandria class of plants; natural order twenty-second, Caryophyllæ: *CAL.* monophyllous: *COR.* none: there are two SEEDS contained in the calyx; species three, natives of this country.

SCLERIA, in botany, a genus of the tetrandria order, and monœcia class of plants; natural order fourth, gramina: *CAL.* a gluma, with from two to six valves; the flowers are numerous; the SEEDS a sort of nut, small, oblong, and shining. There are six species, all natives of the West Indies.

SCLEROTIC, *adj.* Fr. *sclerotique*; Gr. *σκληρος*. Hard; an epithet of one of the coats of the eye.

The ligaments observed in the inside of the *sclerotic* tunics of the eye, serve instead of a muscle, by their contraction, to alter the figure of the eye.

Ray on the Creation.

SCOFF, *v. n. & n. s.* } Belgic *schoppen*;
SCOFFING, *n. s.* } Goth. *skimp*. To treat
SCOFFINGLY, *adv.* } with insolent ridicule,
 or contumelious language, with *at*: the noun-substantive and adjective corresponding.

With *scoffs* and scorns, and contumelious taunts, In open market-place produced they me.

Shakspeare. Henry VI.

Sell when you can; you are not for all markets: Cry the man mercy, love him, take his offer; Foul is the most foul, being found to be a *scoffer*.

Shakspeare.

Of two noblemen of the west of England, the one was given to *scoff*, but kept ever royal cheer in his house; the other would ask of those that had been at his table, Tell truly, was there never a flout or dry blow given?

Bacon.

There is no greater argument of a light and inconsiderate person, than prophanely to *scoff* at religion.

Tillotson.

Our answer, therefore, to their reasons is No; to their *scoffs*, nothing.

Holder.

Consider what the apostle tells these *scuffers* they were ignorant of; not that there was a deluge, but he tells them that they were ignorant that the heavens and the earth of old were so and so constituted.

Burnet's Theory of the Earth.

How could men surrender up their reason to flattery, more abusive and reproachful than the rudest *scoffs*, and the sharpest invectives?

South.

Such is love,

And such the laws of this fantastic empire, The wanton boy delights to bend the mighty, And *scoffs* at the vain wisdom of the wise.

Rowe.

Divers have hoarded themselves among these profane *scuffers*, not that they are convinced by their reasons, but terrified by their contumelies.

Government of the Tongue.

Aristotle applied this hemistick *scoffingly* to the sycophants at Athens.

Broome.

Some little souls, that have got a smattering of astronomy or chemistry for want of a due acquaintance with other sciences, make a *scoff* at them all, in comparison of their favourite science

Watts.

SCOLD, *v. n. & n. s.* Saxon *scylb*; Belgic *scholden*. To quarrel clamorously and rudely; rate with the tongue; a scold is a skilful, or properly a practised person in the use of that weapon.

Pardon me, 'tis the time that ever
I'm forced to scold. *Shakspeare. Coriolanus.*

They attacked me, some with piteous moans,
others grinning, and only shewing their teeth, others
ranting, and others *scolding* and reviling.

Stillingfleet.

Sun-burnt matrons mending old nets;
Now singing shrill, and *scolding* off between;
Scolds answer foul-mouthed *scolds*. *Swift.*

For gods, we are by Homer told,
Can in celestial language *scold*. *Id.*

A shrew in domestick life is now become a *scold* in
politicks. *Addison's Freeholder.*

SCOLOPAX, in ornithology, a genus of birds
belonging to the order of grallæ. The back is
cylindrical, obtuse, and longer than the head;
the nostrils are linear; the face is covered; and
the feet have four toes: There are numerous
species, of which the following are a selection:

1. *S. ægocephala*, the godwit, weighs twelve
ounces and a half, the length is sixteen inches;
the breadth twenty-seven; the bill is four inches
long, turns up a little, black at the end, the rest
a pale purple; from the bill to the eye is a broad
white stroke; the feathers of the head, neck, and
back, are of a light reddish brown, marked in
the middle with a dusky spot; the belly and
vent feathers white, the tail regularly barred with
black and white. The six first quill-feathers are
black; their interior edges of a reddish brown;
the legs in some are dusky, in others of a grayish
blue, which perhaps may be owing to different
edges; the exterior toe is connected as far as the
first joint of the middle toe with a strong serrated
membrane. The male is distinguished
from the female by some black lines on the
breast and throat. These birds are taken in the
fens, in the same season and in the same manner
with the ruffs and reeves (see *TRINGA*); and
when fattened are esteemed a great delicacy, and
sell for 2s. 6d. or 5s. a piece. A stale of the
same species is placed in the net. They appear
in small flocks on our coast in September, and
continue with us the whole winter; they walk on
the open sands like the curlew, and feed on insects.

2. *S. arguata*, the curlew, frequents our sea-
coasts and marshes in winter, in large flocks,
walking on the open sands; feeding on shells,
frogs, crabs, and other marine insects. In summer
they retire to the mountainous and unfre-
quented parts of the country, where they pair
and breed. Their eggs are of a pale olive color,
marked with irregular but distinct spots of pale
brown. Their flesh is very rank and fishy; they
differ much in weight and size; some weighing
thirty-seven ounces, others not twenty-two: the
length of the largest to the tip of the tail, twenty-
five inches; the breadth three feet five inches;
the bill is seven inches long: the head, neck,
and coverts of the wings, are of a pale brown;
the middle of each feather black; the breast and
belly white, marked with narrow oblong black
lines: the back is white, spotted with a few black
strokes: the quill feathers are black, but the
inner webs spotted with white; the tail is white,
tinged with red, and beautifully barred with

black; the legs are long, strong, and of a bluish
gray color: the bottoms of the toes flat and
broad, to enable it to walk on the soft mud in
search of food.

3. *S. calidris*, the red-shank, is found on most
of our shores; in the winter time it conceals it-
self in the gutters, and is generally found single,
or at most in pairs. It breeds in the fens and
marshes, and flies round its nest when disturbed,
making a noise like a lapwing. It lays four
eggs, whitish tinged with olive, marked with ir-
regular spots of black chiefly on the thicker end.
It weighs five ounces and a half: the length is
twelve inches, the breadth twenty-one; the bill
nearly two inches long, red at the base, black to-
wards the point. The head, hind part of the
neck, and scapulars, are of a dusky ash-color,
obscurely spotted with black; the back is white,
sprinkled with black spots; the tail elegantly
barred with black and white; the cheeks, under
side of the neck, and upper part of the breast
are white, streaked downward with dusky lines;
the belly white; the exterior webs of the quill-
feathers are dusky; the legs long, and of a fine
bright orange color; the utmost toe connected
to the middle toe by a small membrane; the
inmost by another still smaller.

4. *S. gallinago*, the common snipe, the length
to the end of the tail is nearly twelve inches; the
breadth about fourteen; the bill is three inches
long, of a dusky color, flat at the end, and often
rough like shagreen above and below. The head
is divided lengthways with two black lines, and
three red, one of the last passing over the mid-
dle of the head, and one above each eye: be-
tween the bill and the eyes is a dusky line; the
chin is white; the neck is varied with brown
and red. The scapulars are beautifully striped
lengthways with black and yellow; the quill-
feathers are dusky; but the edge of the first is
white, as are the tips of the secondary feathers:
the quill-feathers next the back are barred with
black and pale red; the breast and belly are
white; the coverts of the tail are long, and al-
most cover it; they are of a reddish-brown co-
lor. The tail consists of fourteen feathers, black
on their lower part, then crossed with a broad
bar of deep orange, another narrow one of black;
and the ends white or pale orange. The legs
pale green; the toes divided to their origin. In
the winter time snipes are very frequent in all
marshy and wet grounds, where they lie con-
cealed in the rushes, &c. In summer they dis-
perse to different parts, and are found in the
midst of the highest mountains as well as of the
low moors; their nest is made of dried grass;
they lay four eggs of a dirty olive color, marked
with dusky spots. When they are disturbed
much, particularly in the breeding season, they
soar to a vast height, making a singular bleating
noise; and, when they descend, dart down with
vast rapidity: it is also amusing to observe the
cock, while his mate sits on her eggs, poise him-
self on her wings, making sometimes a whistling
and sometimes a drumming noise. Their food
is the same with that of the woodcock; their
flight very irregular and swift, and attended with
a shrill scream. These birds are found in every
quarter of the globe, and in very various cli-
mates.

5. *S. glottis*, the greenshank, is in length to the end of the tail fourteen inches; to that of the toes twenty; its breath twenty-five. The bill is two inches and a half long; the upper mandible black, straight, and very slender; the lower reflects a little upwards; the head and upper part of the neck are ash-colored, marked with small dusky lines pointing down; over each passes a white line; the coverts, the scapulars, and upper part of the back, are of a brownish ash-color; the quill-feathers dusky, but the inner webs speckled with white; the breast, belly, thighs, and lower part of the back, are white; the tail is white, marked with undulated dusky bars: the inner coverts of the wings finely crossed with double and treble rows of a dusky color. It is a bird of an elegant shape, and small weight in proportion to its dimensions, weighing only six ounces. The legs are very long and slender, and bare two inches above the knees. The exterior toe is united to the middle toe, as far as the second joint, by a strong membrane which borders their sides to the very end.—These birds appear on the English coast and wet grounds in the winter time in but small numbers.

6. *S. rusticola*, the woodcock, during summer inhabits the Alps of Norway, Sweden, Polish Prussia, and the northern parts of Europe: they all retire from those countries the beginning of winter, as soon as the frosts commence; which force them into milder climates, where the ground is open, and adapted to their manner of feeding. They live on worms and insects, which they search for with their long bills in soft grounds and moist woods.—Woodcocks generally arrive here in flocks, taking advantage of the night or a mist: they soon separate; but, before they return to their native haunts, pair. They feed and fly by night; beginning their flight in the evening, and return the same way to their day retreat. They leave England in the end of February or beginning of March; though they sometimes continue longer. These birds appear in Scotland first on the eastern coasts, and make their progress from east to west. Our species of woodcock is unknown in North America: but a kind is found that has the general appearance of it; but is scarcely half the size, and wants the bars on the breast and belly. The length nearly fourteen inches; and the breadth twenty-six; the bill is three inches long, dusky towards the end, reddish at the base; tongue slender, long, sharp, and hard at the point; the eyes large, and placed near the top of the head, that they may not be injured when the birds thrusts its bill into the ground; from the bill to the eyes is a black line; the forehead is a reddish ash-color; the crown of the head, the hind part of the neck, the back, the covert of the wings, and the scapulars, are prettily barred with a ferruginous red, black, and gray; but on the head the black predominates: the quill feathers are dusky, indented with red marks. The chin is of a pale yellow; the whole under side of the body is of a dirty white, marked with numerous transverse lines of a dusky color. The tail consists of twelve feathers, dusky or black on the one web, and marked

with red on the other; the tips above are ash-colored, below white. The legs and toes are livid; the latter divided almost to their very origin, having only a very small web between the middle and interior toes; as those of the two species of snipes found in England.

SCOLOPENDRA, in zoology, a genus of insects belonging to the order of aptera. The feet are very numerous, being as many on each side as there are joints in the body; the antennæ are setaceous: there are two jointed pappi, and the body is depressed.—These insects are very formidable and noxious in the warm countries, where they grow to the length of a quarter of a yard or more, though in this climate they seldom grow above an inch long. The scolopendra is also called the centipes from its number of feet. In the East Indies it grows to six inches in length, and as thick as a man's finger: it consists of many joints; and from each joint proceeds a leg on each side: they are covered with hair, and seem to have no eyes; but there are two feelers on the head, with which they find out the way they are to pass: the head is very round, with two small sharp teeth, with which they inflict wounds that are very painful and dangerous. Some of the species live in holes in the earth; others under stones, and among rotten wood; so that the removing of these is exceedingly dangerous in the countries where the scolopendra breed. The scolopendra forficata is the largest in this country, of a dun color, smooth, and composed of nine scaly segments, without reckoning the head. The feet are fifteen in number on each side, and the last longer than the rest, and turned backwards, form a kind of forked tail. The antennæ are twice the length of the head, and consist of forty-two short segments. The insect's progressive motion is very quick, and sometimes serpentine. It is found under stones on the ground, under flower-pots and garden boxes.

SCOLYMUS, in botany, golden thistle; a genus of the polygamia æqualis order, and syngenesia class of plants; natural order forty-ninth, compositæ: receptacle paleaceous: CAL. imbricated and prickly, without any pappus. Species three, natives of Barbary and the United States of Europe.

SCOMBER, the mackerel, in ichthyology, a genus belonging to the order of thoracici. The head is smooth and compressed, and there are seven rays in the gill membrane. There are twenty-two species; the most remarkable are the following:—

1. *S. communis*, the common mackerel, a summer fish of passage that visits our shores in vast shoals. It is less useful than other species of gregarious fish, being very tender, and unfit for carriage; but it may be preserved by pickling and salting. See FISHERY. It was greatly esteemed by the Romans, because it furnished the garum, a sort of pickle that gave a high relish to their sauces; and was also used medicinally. This fish is easily taken by a bait; but the best time is during a fresh gale of wind, which is thence called a mackerel gale. In the spring the eyes of mackerel are almost covered with a white film; during which period they are half

blind. This film grows in winter, and is cast the beginning of summer. It is not often that a mackerel exceeds two pounds in weight, yet there have been instances of some that weighed upwards of five. The nose is taper and sharp pointed; the eyes large; the jaws of an equal length; the teeth small, but numerous. The form of this fish is very elegant. The body is a little compressed on the sides: towards the tail it grows very slender, and a little angular. It is a most beautiful fish when alive; nothing can equal the brilliancy of its color, which death impairs, but does not wholly obliterate.

2. *S. thunnus*, the tunny. These fish are caught in nets, and amazing quantities are taken; for they come in vast shoals, keeping along the shores. They frequent our coasts, but not in shoals, like the tunnies of the Mediterranean. They are not uncommon in the lochs on the west coast of Scotland; where they come in pursuit of herrings; and often during night strike into the nets, and do considerable damage. When the fishermen draw them up in the morning, the tunny rises at the same time towards the surface, ready to catch the fish that drop out. On perceiving it, a strong hook, baited with a herring and fastened to a rope, is instantly flung out, which the tunny seldom fails to take. As soon as hooked it loses all spirit; and after a very little resistance submits to its fate. It is dragged to the shore and cut up, either to be sold fresh to people who carry it to the country markets, or preserved salted in large casks. The pieces, when fresh, look exactly like raw beef; but when boiled turn pale, and have something of the flavor of salmon. One mentioned by Mr. Pennant weighed 460lbs. The fish was seven feet ten inches long: the greatest circumference five feet seven; the least near the tail one foot six. The body was round and thick, and grew suddenly very slender towards the tail, and near that part was angular. The irides were of a plain green; the teeth very minute. The tail was in form of a crescent; and two feet seven inches between tip and tip. The skin on the back was smooth, very thick, and black. On the belly the scales were visible. The color of the sides and belly was silvery, tinged with cærulean and pale purple: near the tail marbled with gray. On the coast of Scotland they are called mackrelsture; mackrel, from being of that genus; and sture, from the Danish stor, great.

SCOMM, *n. s.* From Lat. *scommā*. A buffoon. A word well out of use.

The *scomms*, or buffoons of quality are volkish in conversation. *L'Estrange*.

SCONCE, *n. s.* Teut. *schantz*; Goth: *skyu*, to cover. A fort; bulwark; wall protection; a candlestick for a wall.

Such fellows are perfect in the great commanders' names, and they will learn you by rote where services were done; at such and such a *sconce*, at such a breach. *Shakspeare. Henry V.*

Why does he suffer this rude knave now to knock him about the *sconce* with a dirty shovel, and will not tell him of this action of battery? *Id. Hamlet.*

Golden *sconces* hang upon the walls,
To light the costly suppers and the balls.

Dryden's Luc.

Triumphant Umbriel, on a *sconce's* height,
Clapped his glad wings, and sat to view the fight.
Pope.

Put candles into *sconces*.

Swift's Directions to the Butler.

SCONE, or **SCOON**, an ancient town of Scotland, in Perthshire, remarkable for being the place where the kings were anciently crowned. Here was once an abbey of great antiquity, which was burnt by the reformers at Dundee. Kenneth II. upon his conquest of the Picts in the ninth century, having made Scone his principal residence, delivered his laws, called the Macalpine laws, from a tumulus named the Mote Hill of Scone. The old palace was begun by the earl of Gowrie; but was completed by Sir David Murray of Gospatric, the favorite of king James VI., to whom that monarch had granted it; and the new possessor, in gratitude to his benefactor, put up the king's arms in several parts of the house. It is built around two courts. The dining room is large and handsome; and has an ancient and magnificent chimney piece, and the king's arms, with this motto:—

Nobis hæc invicta miserunt centum sex proavi.

Beneath are the Murray arms. In a small bed-chamber is a medly scripture piece in needlework, with a border of animals, pretty well done, the work of queen Mary during her confinement in Loch Leven Castle. The gallery is about 155 feet long, the top arched, divided into compartments filled with paintings in water colors. Till the destruction of the abbey, the kings of Scotland were crowned here, sitting in the famous marble chair which Edward I. transported to Westminster Abbey, to the great mortification of the Scots, who looked upon it as a kind of palladium. Charles II., before the battle of Worcester, was crowned in the chapel. The old pretender resided for some time at Scone in 1715; and his son paid it a visit in 1745. Such was the palace of Scone, till about the year 1803, that part of it was taken down and rebuilt in a more modern style by the earl of Mansfield. The modern house, including a very small portion of the ancient palace, forms one of the most magnificent houses in Scotland. The church erected in 1784 was taken down, and a new one built in 1804 upon the same plan, decorated with an ancient family seat of the Stormont family, the ancestors of the earl of Mansfield, of very curious workmanship. Scone consists of two streets, one of them very wide, and lies forty-one miles north of Edinburgh, and two from Perth.

SCOOP, *n. s.* & *v. a.* Fr. *escoper*; Swedish *scop*; Belg. *schoepe*. A kind of large ladle; a vessel with a long handle used to throw out liquor; a surgical instrument: to use a scoop; to make hollow or like a scoop.

As by the brook he stood,
He scooped the water from the crystal flood.

Id. Æneid.

They turn upside down hops on malt-kilns, when almost dry, with a *scoop*. *Mortimer's Husbandry.*

It much conduces how to scare
The little race of birds, that hop
From spray to spray, *scooping* the costliest fruit,
Insatiate, undisturbed.
Philips.

A spectator would think this circular mound had been actually *scooped* out of that hollow space.

Spectator.

Her fore-feet are broad, that she may *scoop* away much earth at a time.

Addison.

Those carbuncles the Indians will *scoop*, so as 'to hold above a pint.

Arbutnot on Ceins.

Endeavour with thy *scoop*, or fingers, to force the stone outwards.

Sharp's Surgery.

The genius of the place

Or helps the ambitious hill the heaven to scale,

Or *scoops* in circling the theatre's vale. *Pope.*

Melted Alpine snows

The mountain cisterns fill, those ample stores

Of water *scooped* among the hollow rocks.

Thomson.

SCOPARIA, in botany, a genus of the monogynia order, and tetrandria class of plants, natural order fortieth, personatæ: CAL. quadripartite: COR. the same, and rotaceous: CAPS. unilocular, bivalved, and polyspermous.

SCOPAS, a celebrated Grecian architect and sculptor, a native of Ephesus, according to Lem-priere. He flourished about A. A. C. 430. He built the famous Mausoleum for Q. Artemisia, which was esteemed one of the seven wonders of the world. See ARTEMISIA. But his chief work was a statue of Venus, which he carried to Rome, where it was esteemed superior even to that of Praxiteles.

SCOPE, *n. s.* Lat. *scopus*. Aim; intention; drift: room; space; liberty.

The *scope* of all their pleading against man's authority is to overthrow such laws and constitutions in the church, as depending thereupon, if they should therefore be taken away, would leave neither face nor memory of church to continue long in the world.

Hooker.

Now was time

To aim their counsels to the fairest *scope*.

Hubbard's Tale.

Your *scope* is as mine own,

So to enforce or qualify the laws,

As to your soul seems good.

Shakespeare. Measure for Measure.

His coming hither hath no further *scope*

Than for his lineal royalties, and to beg

Infranchisement immediate on his knee.

Id. Richard II.

Ah, cut my lace asunder,

That my pent heart may have some *scope* to beat,

Or else I swoon with this dread killing news.

Shakespeare.

Sith 'twas my fault to give the people *scope*,

I would be my tyranny to strike and gall them

For what I bid them do. *Id.*

As surfeit is the father of much fast,

So every *scope*, by the immoderate use,

Turns to restraint. *Id.*

We should impute the war to the *scope* at which it aimeth.

Raleigh.

The *scopes* of land granted to the first adventurers were too large, and the liberties and royalties were too great for subjects.

Davies on Ireland.

He, in what he counsels, and in what excels,

Mistrustful, grounds his courage on despair

And utter dissolution, as the *scope*

Of all his aim.

Milton's Paradise Lost.

An herick poet is not tied to a bare representation of what is true, but that he might let himself loose to visionary objects, which may give him a freer *scope* for imagination.

Dryden.

Had the whole *scope* of the author been answerable to his title, he would have only undertaken to prove what every man is convinced of; but the drift of the pamphlet is to stir up our compassion towards the rebels.

Addison.

These theorems being admitted into opticks, there would be *scope* enough of handling that science voluminously, after a new manner; not only by teaching those things which tend to the perfection of vision, but also by determining mathematically all kinds of phenomena of colours which could be produced by refraction.

Newton's Opticks.

SCOPOLIA, in botany, a genus of the octandria order, and gynandria class of plants; natural order eleventh, samentacæ: CAL. diphyllous: COR. quadrid: the antheræ coalesce in two columns, one placed above the other. Of this there is only one species, viz. *S. composita*.

SCORBUTICAL, *adj.* } Fr. *scorbutique* ;

SCORBU'TIC, } Lat. *scorbutus*. Dis-

SCORBU'TICALLY, *adv.* } eased with scurvy: the adverb corresponding.

Violent purging hurts *scorbutic* constitutions; lenitive substances relieve.

Arbutnot.

A person about forty, of a full and *scorbutical* body, having broke her skin, endeavoured the curing of it; but, observing the ulcer sanious, I proposed digestion.

Wise man.

A woman of forty, *scorbutically* and hydropically affected, having a sordid ulcer, put herself into my hand.

Id.

SCORCE, *n. s.* Used by Spenser for discourse, or power of reason: in imitation perhaps of the Italians.

Lively vigour rested in his mind,

And recompensed him with a better *score* ;

Weak body well is changed for mind's redoubled force.

Faerie Queene.

SCORCH, *v. a. & v. n.* Saxon *scopenes* ; Belg. *schrocken*, burnt. To burn superficially: be dried up or thus burnt.

Power was given to scorch men with fire.

Revelations xvi. 8.

Fire *scorcheth* in frosty weather.

Bacon's Natural History.

The same that left thee by the cooling stream, Safe from sun's heat, but *scorched* with beauty's beam.

Fairfax.

The swarthy Africans complain

To see the chariot of the sun

So nigh their *scorching* country run. *Roscommon.*

You look with such contempt on pain,

That languishing you conquer more ;

So lightnings which in storms appear

Scorch more than when the skies are clear. *Waller.*

I rave,

And, like a giddy bird in dead of night,

Fly round the fire that *scorches* me to death.

Dryden.

The love was made in Autumn, and the hunting followed properly when the heats of that *scorching* country were declining.

Id.

Scatter a little mungy straw or fern amongst your seedlings, to prevent the roots from *scorching*, and to receive the moisture that falls.

Mortimer's Husbandry.

The same beams that shine, *scorch* too. *South.*

He, from whom the nations should receive

Justice and freedom, lives himself a slave ;

Tortured by cruel change of wild desires,

Lashed by mad rage, and *scorched* by brutal fires.

Prior.

SCORDISCÆ, or SCORDISCI, an ancient people of Pannonia and Thrace, infamous for their barbarity during the reigns of the Roman emperors. They not only sacrificed their prisoners to their gods, but drank their blood.—Liv. Flor. Strabo.

SCORDIUM, or water germander, in botany, is a species of teucrium.

SCORE, *n. s. & v. a.* Isl. *skora*; Goth. *skor*, a mark or notch. A notch, or long incision; a line drawn; account kept; reason; sake; to mark or set down in account.

Hast thou appointed where the sun should rise,
And with her purple light adorn the skies?
Scored out the bounded sun's obliquer ways,
That he on all might spread his equal rays?

Sandys.

Our forefathers had no other books but the score
and the tally: thou hast caused printing to be used.

Shakspeare. Henry VI.

He's worth no more:

They say he parted well, and paid his score.

Id. Macbeth.

That thou dost love her, strikes some scores away
From the great compt.

Id. All's Well That Ends Well.

He had been prentice to a brewer,

But left the trade; as many more
Have lately done on the same score.

Hudibras.

Universal deluges have swept all away except two
or three persons who begun the world again upon a
new score.

Tillotson.

Your follies and debauches change

With such a whirl, the poets of your age
Are tired, and cannot score 'em on the stage;
Unless each vice in short-hand they indite,
Even as notch prentices whole sermons write.

Dryden.

You act your kindness on Cydaria's score.

Id.

A lion that had got a politick fit of sickness,
write the fox word how glad he should be of his
company, upon the score of ancient friendship.

L'Estrange.

Does not the air feed the flame? And does not
the flame warm and enlighten the air? Does not the
earth quit scores with all the elements, in the fruits
that issue from it?

South.

If your terms are moderate, we'll never break off
upon that score.

Collier on Pride.

Kings in Greece were disposed by their people
upon the score of their arbitrary proceedings.

Swift.

Madam, I know when

Instead of five you scored me ten.

Id.

SCORE, *n. s.* Sax. *ƿcop*. Twenty; because
twenty, being a round number, was distinguished
on tallies by a long score.

How many score of miles may we well ride

'Twillix hour and hour? *Shakspeare. Cymbeline.*

The fewer still you name, you wound the more;
Bond is but one, but Harpax is a score.

Pope.

For some scores of lines there is a perfect absence
of that spirit of poesy.

Watts.

O bid him never tie them mair

Wi' wicked strings o' hemp or hair!

But ca' them out to park or hill,

An' let them wander at their will;

So may his flock increase, an' grow

To scores o' lambs, an' packs o' woo'!

Burns.

SCORIA, *n. s.* Lat. *scoria*. Dross; recre-

ment.
By the fire they emit many drossy and scorious
parts.

Brown.

The *scoria*, or vitrified part, which most metals,
when heated or melted, do continually protrude to
the surface, and which, by covering the metals in
form of a thin glassy skin, causes these colours, is
much denser than water.

Newton's Opticks.

SCORIA, among metallurgists, is the dross of
metals in fusion; or the glass often produced
by melting metals and ores: when cold it is
brittle, and not dissoluble in water.

SCORIFICATION, the art of reducing a
body either entirely, or in part, into scoriam. It
is used by metallurgists, in order that any metal,
imprisoned in a solid body, may, on account of
its weight, descend and separate itself from it,
and finally, if that be required by itself either
wholly or in part, converted into scoriam. It is
often proper to make this scorification in a vessel
that may absorb the scoriam, and retain only the
metallic part of the mass. See CUPEL and
ASSAYING.

SCORN, *v. a., v. n., &* French *escorner*;
SCORN'ER, *n. s.* [*n. s.*] Span. *escannir*; Ital.
SCORN'FUL, *adj.* } *scornare*. To des-
SCORN'FULLY, *adv.* } pise; slight; revile;
to scoff; disdain; neglect: the noun substantive,
adjective, and adverb, corresponding.

My friends scorn me; but mine eye poureth out
tears unto God.

Job xvi. 20.

Our soul is filled with the scorning of those that
are at ease, and with the contempt of the proud.

Psalms cxliii. 4.

Surely he scorneth the scorner, but he giveth grace
unto the lowly.

Proverbs.

He that sitteth in the heavens shall laugh them to
scorn; the Lord shall have them in derision.

Psalms. Common Prayer.

If he do fully prove himself the honest shepherd
Menalcas his brother and heir, I know no reason
why you should think scorn of him.

Sidney.

They are very active; vigilant in their enterprises,
present in perils, and great scorners of death.

Spenser on Ireland.

He said mine eyes were black, and my hair black;
And, now I am remembered, scorned at me.

Shakspeare.

We were better parch in Afric's sun
Than in the pride and salt scorn of his eyes.

Id.

He used us scornfully; he should have showed us
His marks of merit, wounds received for's country.

Id.

Diogenes was asked in scorn, What was the
matter that philosophers haunted rich men, and not
rich men philosophers? He answered, because the one
knew what they wanted, the others did not.

Bacon.

I've seen the morning's lovely ray

Hover o'er the new-born day

With rosy wings so richly bright,

As if he scorned to think of night.

Crashaw.

This my long sufferance, and my day of grace,
They who neglect and scorn shall never taste;
But hard be hardened, blind be blinded, more.

Milton.

Is it not a most horrid ingratitude thus to make a
scorn of him that made us?

Tillotson.

Every sullen frown and bitter scorn

But fanned the fuel that too fast did burn.

Dryden.

The enamoured deity

The scornful damsels shuns.

Id.

The scorner should consider, upon the sight of a
cripple, that it was only the distinguishing mercy of
heaven that kept him from being one too.

L'Estrange.

For Numidia's grown a *scorn* among the nations,
A breach of publick vows. *Addison's Cato.*

They, in the *scorner's* or the judge's seat,
Dare to condemn the virtue which they hate. *Prior.*

With him I o'er the hills had run,
Scornful of winter's frost and summer's sun. *Id.*

The sacred rights of the Christian church are
scornfully trampled on in print, under an hypocritical
pretence of maintaining them. *Atterbury's Sermons.*

Fame, that delights around the world to stray,
Scorns not to take our Argos in the way. *Pope.*

SCORPÆNA, in ichthyology, a genus of fishes, of the order thoracici. The head is large and sharp; the eyes are near each other; there are teeth in the jaws, palate, and fauces; and there are seven rays in the membrane of the gill. The species are three; viz.

1. *S. horrida*, 2. *S. porcus*, and 3. *S. scrofa*. The largest of these is the *S. scrofa*, of which the following are the distinguishing characters:— Lower lip having two cirri; head large; eyes enormous, pupil black, iris yellow or reddish, with four brown rays, above which are three cirri; mouth large; cheeks and lower jaw cirrous; jaws equal; the tongue and palate armed with sharp, recurved teeth; aperture of the gills large, the cover with two large and many smaller spines; back brown; fins bluish, the rays varied, yellow, and brown, and mostly forked. This fish inhabits the Atlantic, Mediterranean, and Northern Seas; it grows from three to four yards long, and is a most voracious fish, preying not only on other fishes, but also on sea-birds; body whitish-tawny, spotted with brown, and covered with large scales; the flesh is eaten in Italy. This fish is called by the people of Cornwall father-lasher.

SCORPÆNA is also the name of another fish caught in many parts of the Mediterranean. It seldom grows to more than a pound weight. Its body is long, but not flattened, and is moderately thick. Its head is extremely large, and is armed with prickles, and it grows gradually less from thence to the tail. The prickles about the head are accounted venomous, and the fishermen usually cut them off as soon as the fish is caught. Its tail is rounded at the end. The belly and belly-fins are reddish.

SCORPIO, in entomology, a genus of insects belonging to the order of aptera. It has eight feet, besides two frontal claws; the eyes are eight in number, three on each side of the thorax, and two on the back. It has two claw-shaped palpi, a long jointed tail, with a pointed weapon at the extremity; it has likewise two combs situated between the breast and abdomen. See ENTOMOLOGY. There are several species, all natives of warm climates. Of all the classes of noxious insects, the scorpion is the most terrible, whose size among the insects is enormous, and its sting often fatal. In several parts of the continent of Europe it is but too well known, though it seldom grows above four inches long; but in the warm tropical climates it is seen a foot in length, and in every respect as large as a lobster, which it somewhat resembles in shape. The scorpion's head seems, as it were, jointed to the breast, in the middle of which are seen two eyes; and a little more forward two eyes more,

placed in the fore part of the head; these eyes are so small that they are scarcely perceivable; and it is probable the animal has but little occasion for seeing. The mouth is furnished with two jaws; the undermost is divided into two, and the parts notched into each other, with which it breaks its food, and thrusts it into its mouth; these the scorpion can at pleasure pull back into its mouth, so that no part of them can be seen. On each side of the head are two arms, each composed of four joints; the last of which is large, with strong muscles, and formed in the manner of a lobster's claw. Below the breast are eight legs, each divided into six joints; the two hindmost of which are each provided with two crooked claws, and here and there covered with hair. The belly is divided into seven little rings; from the lowest of which is continued a tail composed of six joints, which are bristly, and formed like little globes, the last being armed with a crooked sting. This is that fatal instrument which renders this insect so formidable; it is long, pointed, hard, and hollow; it is pierced near the base by two small holes, through which, when the animal stings, it ejects a drop of poison, which is white and caustic. The reservoir in which this poison is formed and kept is a small bladder near the tail. If this bladder be greatly pressed the venom will be seen issuing out through the two holes above mentioned; so that it appears, that when the animal stings, the bladder is pressed, and the venom issues through the two apertures into the wound. Galen observes that a person who had not witnessed the fact would not suppose that so small an injury as the sting of a scorpion, or the bite of a poisonous spider, could produce the violent effects which they do in the whole body. He says the aculeus or sting of a scorpion ends in the minutest point; and has no perforation through which any poison can pass into the wound. Yet, he says, we must suppose the venom to be some spiritual substance or moisture, in which a great power is concentrated in a small compass. 'Before I had an opportunity,' says Dr. Moseley, 'of examining this subject, my respect for the opinion of Galen made me doubt the accuracy of Leuwenhoek, Redi, Mead, and others, who assert that there is an aperture near the cuspis of a scorpion's sting; and that through this aperture a liquid poison is injected when a wound is inflicted. Repeated experiments, with the best glasses, have never enabled me to discover any foramen or opening whatever.' There are few animals more formidable, or more truly mischievous, than the scorpion. As it takes refuge in a small place, and is generally found sheltering in houses, it must frequently sting those among whom it resides. In some of the towns of Italy, and in France, in the ci-devant province of Languedoc, it is a terrible enemy; but its malignity in Europe is trifling, when compared to what the natives of Africa and the east are known to experience. In Batavia, where they grow twelve inches long, there is no removing any piece of furniture without the utmost danger of being stung by them. Bosman assures us that along the Gold Coast they are often found larger than a lobster; and that their

stung is inevitably fatal. In Europe, however, they are by no means so large, so venomous, or so numerous. The general size of this animal does not exceed two or three inches. Maupertuis, who made several experiments on the scorpion of Languedoc, found it by no means so invariably dangerous as had till then been represented. He provoked one of them to sting a dog in three places of the belly, where the animal was without hair. In about an hour after the poor animal appeared greatly swollen, and became very sick; he then cast up whatever he had in his bowels, and for about three hours continued vomiting a whitish liquid. The belly was always greatly swollen when the animal began to vomit; but this operation always seemed to abate the swelling, which alternately swelled, and was thus emptied for three hours successively. The poor animal after this fell into convulsions, bit the ground, dragged himself along upon his fore feet, and at last died, five hours after being bitten. He was not partially swollen round the place which was bitten, as is usual after the sting of a wasp or a bee; but his whole body was inflated, and there only appeared a red spot on the places where he had been stung. Some days after, however, the same experiment was tried upon another dog, and even with more aggravated cruelty, yet the dog seemed in no way affected by the wounds; but, howling a little when he received them, continued alert and well after them; and soon after was set at liberty without showing the smallest symptoms of pain. So far was this poor creature from being terrified at the experiment, that he left his own master's house to come to that of the philosopher, where he had received more plentiful entertainment. The same experiment was tried by fresh scorpions upon seven other dogs, and upon three hens; but no deadly symptom ensued. Hence it appears, that many circumstances, which are utterly unknown, must contribute to give efficacy to the scorpion's venom. In the trials made by Maupertuis he employed scorpions of both sexes, newly caught and seemingly vigorous and active. These experiments may serve to show that many of the boasted antidotes which are given for the cure of the scorpion's sting, owe their success rather to accident than their own efficacy. They only happened to cure when their sting was no way dangerous; but in cases of actual malignity they might probably be utterly unserviceable. The scorpion of the tropical climates, being much larger than the former, is probably much more venomous. Helbigius, however, who resided for many years in the east, assures us that he was often stung by the scorpion, and never received any material injury from the wound; a painful tumor generally ensued, but he always cured it by rubbing the part with a piece of iron or stone, as he had seen the Indians practise before him, until the flesh became insensible. Seba, Moore, and Bosman, however, give a very different account of the scorpion's malignity; and assert that, unless speedily relieved, the wound becomes fatal. No animal in the creation seems endowed with such an irascible nature; they have often been seen, when taken and put into a place of security, to exert all their rage

against the sides of the glass vessel that contained them. They will attempt to sting a stick when put near them, and attack a mouse or a frog, while those animals are far from offering any injury. Maupertuis put three scorpions and a mouse into the same vessel together, and they soon stung the little animal in different places. The mouse, thus assaulted, stood for some time upon the defensive, and at last killed them all, one after another. He tried this experiment, in order to see whether the mouse, after it had killed, would eat the scorpions; but the little quadruped seemed satisfied with the victory, and even survived the severity of the wounds it had received. Wolkemar tried the courage of the scorpion against the tarantula, and enclosed several of both kinds in glass vessels for that purpose. The spider at first used all its efforts to entangle the scorpion in its web, which it immediately began spinning; but the scorpion rescued itself from the danger, by stinging its adversary to death; it soon after cut off, with its claws, all the legs of the spider, and then sucked all the internal parts at its leisure. The fierce spirit of this animal is equally dangerous to its own species, for scorpions are the cruellest enemies to each other. Maupertuis put about 100 of them together in the same glass; and they scarcely came into contact before they began to exert all their rage in mutual destruction; there was nothing to be seen but one universal carnage, without any distinction of age or sex; so that in a few days there remained only fourteen, which had killed and devoured all the rest. He next enclosed a female scorpion, big with young, in a glass vessel, and she was seen to devour them as fast as they were excluded; there was but one only of the number that escaped the general destruction, by taking refuge on the back of its parent; and this soon after revenged the cause of its brethren, by killing the old one in its turn. Such is the terrible and unrelenting nature of this insect. It is even asserted that, when driven to an extremity, the scorpion will destroy itself. The following experiment was ineffectually tried by Maupertuis:—'But,' says Mr. Goldsmith, 'I am so well assured of it by many eye-witnesses, who have seen it both in Italy and America, that I have no doubt remaining of its veracity. A scorpion newly caught is placed in the midst of a circle of burning charcoal, and thus an egress prevented on every side; the scorpion, as I am assured, runs for about a minute round the circle, in hopes of escaping; but, finding that impossible, it stings itself on the back of the head, and in this manner the undaunted suicide instantly expires.' This, however, wants further confirmation. The male and female of this insect are very easily distinguishable; the male being smaller and less hairy. The female brings forth her young alive, and perfect in their kind. Redi, having bought a quantity of scorpions, selected their females, which by their size and roughness, were easily distinguishable from the rest, and putting them in separate glass vessels, he kept them for some days without food. In about five days one of them brought forth about thirty-eight young ones, well shaped, and of a milk white color, which changed every

day more and more into a dark rusty hue. Another female, in a different vessel, brought forth twenty-seven of the same color, and the day following the young ones seemed all fixed to the back and belly of the female. For near a fortnight all these continued alive and well, but afterwards some of them died daily, until, in about a month, they all died except two. Were it worth the trouble, these animals might be kept living as long as curiosity should think proper. Their chief food is worms and insects; and upon a proper supply of these their lives might be lengthened to their natural extent. How long that may be we are not told; but if we may argue from analogy, it cannot be less than seven or eight years; and perhaps, in the larger kind double that duration. As they have somewhat the form of the lobster, so they resemble that animal in casting their shell, or more properly their skin; since it is softer by far than the covering of the lobster, and set with hairs, which grow from it in great abundance, particularly at the joinings. The young lie in the womb of the parent, each covered up in its own membrane, to the number of forty or fifty, and united to each other by an oblong thread, so as to exhibit altogether the form of a chaplet. It seems probable that captivity produces that unnatural disposition in the scorpion which induces it to destroy its young; since, at liberty, it is found to protect them with unceasing assiduity.

SCORPIO, the scorpion, in astronomy, the eighth sign of the zodiac, denoted by the character ♏. See ASTRONOMY.

SCORPION, *n. s.* French *scorpion*; Latin *scorpio*. A reptile resembling a small lobster, with a very venomous sting.

My father hath chastised you with whips, but I will chastise you with scorpions. 1 Kings xii. 11.

Well, forewarning winds

Did seem to say, seek not a scorpion's nest.

Shakespeare. Henry VI.

Full of scorpions is my mind, dear wife. *Id. Macbeth.*

The squeezing crab and stinging scorpion shine.

Dryden.

SCORPION. See SCORPIO.

SCORPION GRASS is a species of scoriurus.

SCORPIURUS, the caterpillar, in botany, a genus of the decandria order, and diadelphia class of plants, natural order thirty-second, papilionaceæ; legume contracted by incisions on the inside betwixt every two seeds revolved round. There are four species, the most remarkable of which is—

S. vermiculata, a native of Italy and Spain. It is an annual plant, with trailing herbaceous stalks, which at each joint have a spatular-shaped leaf with a long foot-stalk. From the wings of the leaves come out the foot-stalks of the flowers, which sustain at the top one yellow butterfly flower, succeeded by a thick twisted pod, having the size and appearance of a larger caterpillar, from whence it had this title. This has long been preserved in the gardens of this country, more on account of its odd shape than for any great beauty. It is propagated by sowing the seeds on a bed of light earth; and, when the plants come up, they must be kept free from weeds and thinned, so that there may be a foot distance between them.

SCORZA (Senibald), an eminent Italian painter and engraver, born at Vollagio, in 1590. He engraved after the designs of the celebrated Albert Durer, with great accuracy. As a painter he excelled in representing animals and flowers. He died in 1631, aged forty-one.

SCORZONERA, viper-grass, in botany, a genus of the polygamia æqualis order, and syngenesia class of plants: natural order forty-ninth, compositæ; receptacle naked; pappus like a plum: CAL. imbricated, with scales membranaceous on their margins. The most remarkable species is the—

S. Hispanica, the Spanish, or common viper-grass. It is cultivated in the gardens of this country, both for culinary and medicinal purposes. The root is carrot-shaped, about the thickness of a finger, covered with a dark brown skin, is white within, and has a milky juice. The stalk rises three feet high, is smooth, branching at the top, and garnished with a few narrow leaves, whose base half embraces the stalk. The flowers are of a bright yellow color, and terminate the stalks in scaly empalements composed of many narrow tongued-shaped hermaphrodite florets, lying over each other like the scales of fish, and are of a bright yellow color. After these are decayed, the germen, which sits in the common empalements, turns to oblong cornered seeds, having a roundish ball of feathered down at the top. This plant is propagated by seeds; and must be carefully thinned and kept free from weeds, otherwise the plants will be weak. The roots of the scorzonera were formerly much celebrated for their alexipharmic virtues, and for throwing out the small-pox; but have now almost entirely lost their character; however, as they abound with an acrid juice, they may sometimes be of use for strengthening the viscera, and promoting the fluid secretions.

SCOT (Michael), of Balwirie, a learned Scottish author of the thirteenth century. He made the tour of France and Germany; and was received with distinction at the court of the emperor Frederic II. He was skilled in languages; and translated into Latin, from the Arabic, the history of animals, by the celebrated physician Avicenna. He published the whole of the works of Aristotle with notes. He wrote a work on The Secrets of Nature; also a tract On the Nature of the Sun and Moon. He there speaks of the grand operation of the alchymists, and is exceedingly solicitous about the projected powder, or the philosopher's stone. He likewise published *Mensa Philosophica*, a treatise on astrology and chiromancy. He was much admired in his day, and was even suspected of magic; and had Roger Bacon and Cornelius Agrippa for his panegyrist.

Scot (Reginald), a writer in the sixteenth century. He studied at Hart Hall, in the University of Oxford; after which he retired to Smeeth, where he lived a studious life, and died in 1599. He published *The perfect Platform of a Hop-garden*, and *The Discovery of Witchcraft*; in which he showed that the relations concerning magicians and witches are chimerical. This work was not only censured by king James I. in his *Dæmonology*, but by several eminent

divines; and all the copies of it that could be found were burnt.

SCOT, *n. s.* Fr. *scot*. Shot; payment; scot and lot, parish payments.

'Twas time to counterfeit, or that hot termagant Scot had paid me *scot and lot* too.

Shakespeare. Henry IV.

The chief point that has puzzled the freeholders, as well as those that pay *scot and lot*, for about these six months, is, Whether they would rather be governed by a prince that is obliged by law to be good, or by one who, if he pleases, may plunder or imprison?

Addison.

Protogenes, historians note,
Lived there a burges, *scot and lot*. *Prior.*

SCOT and LOT is a customary contribution laid upon all subjects according to their abilities. Whoever were assessed in any sum, though not in equal proportions, were said to pay *scot and lot*.

SCOTAL, or SCOTALE, is where an officer of a forest keeps an ale-house within the forest, by color of his office, making people come to his house, and there spend their money for fear of his displeasure. We find it mentioned in the charter of the forest, cap. 8. 'Nullus forrestarius faciat Scotallas, vel garbas colligat, vel aliquam collectam faciat, &c. The word is compounded of *scot* and *ale*, and by transposition of the words is otherwise called *aleshot*.

SCOTCH, *v. a.* Qu. Lat. *quatio*. To cut with shallow incision.

He was too hard for him; directly before Corioli, he *scotcht* and notcht him like a carbonado.

Shakespeare. Coriolanus.

We'll heat 'em into Bench holes; I have yet room for six *scotches* more.

Id. Antony and Cleopatra.

Give him four *scotches* with a knife, and then put into his belly, and these *scotches*, sweet herbs.

Walton's Angler.

Children being indifferent to any thing they can do, dancing and *scotch hoppers* would be the same thing to them.

Locke.

SCOTI (Latin), the Scots, the ancient inhabitants of Scotland, mentioned as distinct from the Picts, so early as by Claudian de Hon. 3. Cons. v.

SCOTIA, NOVA, or NEW SCOTLAND, a name that has been given to those British settlements in North America, situated between 43° and 46° lat. N. and between 60° and 67° long. W., bounded by the St. Lawrence on the north, by the gulf of St. Laurence and the Atlantic Ocean on the east, by the same ocean on the south, and by Canada and New England on the west. In 1784 this province was divided into two governments. See our article NORTH AMERICA, chap. III. The trade between Great Britain and these provinces consists in the export of linen, woollens, and fishing gear chiefly, for £30,000 a-year, and the import of lumber and fish for £40,000.

The Isle of Sable, twenty-five leagues distant from Cape Canso, the north-east point of Nova Scotia, is composed entirely of sand-hills, in the shape of sugar-loaves, 140 feet high, and white as milk with white transparent stones: it is of a semicircular shape, being ten leagues in circuit, but very narrow. On the north, or concave side, is a shallow lake, five leagues in circumference, and communicating with the sea. It

has no port, but has some ponds of fresh water, and produces juniper, blue-berry bushes, grass, and vetches. Many vessels have been wrecked on this island, and the people have perished of hunger. In order to render it less dangerous, the government of Halifax, in 1809, sent a party of people to settle on it, in order to show fires during bad nights, and to afford assistance to those who may be shipwrecked on it.

The peninsula of Nova Scotia was first settled by the French in 1604, who gave it the name of Acadia. Their original establishment was at Port François, on the west coast, and the first colonists occupied themselves solely in trading with the Indians for furs, or procuring them by the chase themselves. The vicinity of the British colonies of New England, however, produced here, as well as at Canada, a destructive concurrence in the Indian trade; and on the part of the Acadians, similar attempts to irritate the Indians against the English, while the latter retorted on the French settlements, whenever the disputes between the two nations in Europe permitted them to commence open hostilities. After being taken by the English, and restored several times, Acadia was finally ceded to Great Britain by the peace of Utrecht. Very few English, however, settled on it, and, with the exception of change of name to Nova Scotia, no alteration was made in the government; the French colonists being maintained in possession of their laws and religion, and were besides permitted to remain neuter in any wars between France and England. In 1746 the French attempting to regain possession of the province, and the colonists breaking their neutrality, the British government determined to colonise it efficiently, and at the peace of Aix-la-Chapelle (1748) the disbanded officers and soldiers were encouraged to emigrate thither by grants of land according to their respective ranks. These encouragements induced 3750 persons to embark for the colony in 1749, who founded the city of Halifax. The French colonists, fearing a persecution from the new government and colonists, on account of their religion, and being also encouraged by the Canadian government, generally retired from Nova Scotia to that province, while the English, equally anxious to get rid of them, removed the remainder to the other English colonies. In 1769 the population of the colony had increased to 26,000 persons, by emigrations from England and Germany; and in the same year its exports amounted to £30,000. The American war still farther increased the population, by the emigration of loyalists from the insurgent colonies, and gave an extraordinary impulse to its commerce and cultivation, by the demands of the British fleets and armies.

SCOTISTS, a sect of school divines and philosophers, thus called from their founder J. Duns Scotus, a cordelier, who maintained the immaculate conception of the Virgin, or that she was born without original sin, in opposition to Thomas Aquinas and the Thomists. The Scotists and Thomists disagreed about the nature of the divine co-operation with the human will, the measure of divine grace that is necessary to salvation, and other abstruse and minute questions, which it is needless to enumerate.

SCOTLAND.

SCOTLAND, an ancient, and long an independent kingdom of Great Britain, is situated, exclusive of its islands, between $54^{\circ} 37'$ and $58^{\circ} 42'$ N. lat., and between $1^{\circ} 47'$ and $6^{\circ} 7'$ W. long. from London. It contains thirty-three counties, and is bounded south by the Solway frith, and the rivers Esk, Lark, Liddel, and Tweed; on the east and north by the Northern Ocean; and on the west by the waters of the Atlantic. Its greatest length due north and south is 275 miles, and its greatest breadth 147 miles; but its breadth is extremely various, and in one place does not exceed thirty-six miles. The superficial area of the mainland is said to amount to 25,520 square miles, 494 square miles of fresh water lakes, and 5000 square miles of salt-water lochs, or lakes. The islands, comprising the Hebrides on the west, and the Orkneys and Zetland isles towards the north, comprehend an area of 4224 square miles.

I. HISTORY OF SCOTLAND UNTIL THE WITHDRAWMENT OF THE ROMANS.—It is difficult to give any satisfactory account of the origin of the appellation of Scots, from which the country has derived its name. The conjectures of the most eminent antiquaries serve rather to perplex than to clear up the difficulty. All that we know with certainty concerning this appellation is, that it was at first a term of reproach, framed by enemies, rather than assumed by the nation. The Highlanders, the descendants of the ancient Scots, are absolutely strangers to the name, and have been always so. All those who speak the Gaelic language call themselves Albanich or Gael, and their country Alba or Gaeldochd; whence Caledonia, the most ancient name of the country. The Picts, who possessed originally the northern and eastern, and in a later period also the more southern, division of North Britain, were at first more powerful than the Caledonians of the west. It is therefore probable that the Picts were ready to traduce and ridicule their weaker neighbours of Argyle. These two nations spoke the same language, the Gaelic. In that language Scot, or Scode, signifies a corner or small division of a country. Accordingly, a corner of North Britain is the very name which Giraldus Cambrensis gives the little kingdom of Argyle, which the six sons of Muredus king of Ulster were said, according to his information, to have erected in Scotland. Scot in Gaelic is much the same with little or contemptible in English. Others observe, that in the same language the word Scuit signifies a wanderer, and suppose that this may have been the origin of the name of Scot; a conjecture which they think is countenanced by a passage in Amianus Marcellinus (l. xxvii.), who characterises the men by the epithet of *per diversa vagantes*, i. e. roaming. On the whole it appears, that for some one of the reasons couched under the above disparaging epithets, their sneering neighbours, the Picts or the Britons, may have given the appellation of Scots to the ancestors of the Scot-

tish nation. At what time the inhabitants of the west of Scotland became distinguished by this name is uncertain. Porphyrius the philosopher is the first who mentions them, about A. D. 267; and towards the middle of the fourth century we find them mentioned with other British nations, by Ammianus Marcellinus, in the passage above referred to. The territory of the ancient Scots, before the annexation of Pictavia, comprehended all that side of Caledonia, which lies on the north and western ocean, from the frith of Clyde to the Orkneys. Towards the east their dominions were divided from the Pictish territories by the high mountains which run from Dumbarton to the frith of Tain. In process of time, the Scots, under the reign of Kenneth, the son of Alpin, became so powerful as to subdue their neighbours the Picts, and gave their own denomination to all Caledonia, Pictavia, and Valentia; all which are now comprehended under the general name of Scotland.

The origin of the Scots has been warmly disputed by many antiquaries of note; particularly by Macpherson and Whitaker. The first contends that they are of Caledonian, the latter that they are of Irish extraction. The Scots seem to have been originally descended from Britons of the south, or from Caledonians, who, being pressed forward by new colonies from Gaul, till they came to the western shore of Britain, passed over into Ireland, probably about 100 years before the Christian era. About A. D. 320 they returned again into Britain; or at least a large colony of them, under the conduct of Fergus, and settled on the western coasts of Caledonia, from whence they had formerly migrated. As early as the year 340, we find them associated with the Picts in their expeditions to the Roman province; and, for ninety or 100 years after, their ravages are frequently mentioned by the Roman and British writers. The historians of Scotland, like those of all other nations, assume too great an antiquity for their countrymen. By them the reign of Fergus, the first Scottish monarch, is placed in A. A. C. 330. He was the son of Farguhard, an Irish prince; and was called into Scotland by the Caledonians, to assist them against the southern Britons, with whom they were then at war. Having landed on one of the Ebudæ or western isles, he had a conference with the Caledonians, whose language and manners he found to be the same with those of his countrymen. Having then landed in Scotland, and taken the field at the head of his new allies, he engaged the Britons under their king Coilus. Victory declared in favor of the Scots; Coilus was defeated and killed: and from him the province of Kyle first received its name. After this Fergus was declared king of the Scots, with the solemnity of an oath. But having been recalled to Ireland, to quiet some commotions there, he was drowned by a sudden tempest on his return, at a place in Ireland called from him Carrick-Fergus, i. e. Fergus's Rock, in the year 305 B. C.



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Fergus I. was succeeded by his brother Feritharis, to the prejudice of his two sons, Ferlegus and Mainus. This was in conformity with a law, by which it was ordained that, whilst the children of their kings were infants, one of their relations, who was reckoned the most fit for the government, should be raised to the throne, but that after his death the sovereignty should return to the sons of the former king. But Ferlegus, impatient for the crown, demanded it from his uncle. The dispute being referred to an assembly of the states, Feritharis was confirmed on the throne, and Ferlegus would have been condemned for sedition had not his uncle interposed. However, he was imprisoned; but, having made his escape, he fled first to the Picts and then to the Britons, to excite them against Feritharis. With both he failed in accomplishing his purpose; but, his uncle being afterwards stabbed in his bed, the suspicion fell upon Ferlegus, who was thereupon set aside from the succession, and died in obscurity, the throne being conferred upon his brother Mainus. Mainus succeeded his uncle A. A. C. 291, and is celebrated for a peaceable and just reign of twenty-nine years; and a treaty with Crinus king of the Picts. He died in 262, and was succeeded by his son Dornadil, who was a great hunter, and instituted the laws of hunting in this country. He died in 233 B. C., and was succeeded by his brother Nothat; who in the twentieth year of his reign, B. C. 213, was killed in a battle with Reuther his nephew; upon which the latter was immediately invested with the sovereignty. A bloody war ensued with the Picts, in which both parties were reduced to the last extremities, and glad to conclude a peace, which continued many years. Reuther died in 187 B. C., the 26th of his reign, and was succeeded by his brother Reutha; who is said to have encouraged trade and manufactures, and to have received an embassy of learned men from Ptolemy king of Egypt. He died 171 B. C., and left the throne to his son Theurus, who, proving a tyrant, was banished, and died at York in 161. His brother Josina succeeded, and cultivated the arts of peace; studying medicine and botany, &c. He reigned twenty-four years, and died 137 B. C., when his son Finnan succeeded. He is celebrated as a wise monarch, and in his reign we find the first beginnings of the Scottish parliament; as he enacted that kings should do nothing without the consent of their grand council.

Finnan died in his thirtieth year, 107 B. C., and was succeeded by his son Durstus, who, proving a cruel tyrant, was killed in battle by his nobles, in the ninth year of his reign. He was succeeded by his brother Even I., who was a wise monarch; and successfully assisted the Picts against the Britons. Even died in his nineteenth year B. C. 79, when the crown was usurped by his bastard son Gillus, who murdered the two sons of Durstus, but was killed in battle two years after. In 77 B. C. Even II., the nephew of Finnan, succeeded Gillus, and built the towns of Innerlochy and Inverness. He overcame Belus king of the Orkneys, who had invaded Scotland, and was succeeded by his son Eder, in 30 B. C., in whose time Julius Cæsar

invaded the southern parts of this island. Eder is said to have assisted the Britons against the common enemy. He was succeeded, after a reign of forty-eight years, by his son Even III., in the year 12 B. C., who is represented as a monster of cruelty and lust. Nor was he less remarkable for his rapaciousness, which at last occasioned a rebellion: he was dethroned, imprisoned, and put to death in his seventh year, 4 B. C. Even was succeeded by Metellanus, nephew of Ederus, a wise and good king, who reigned prosperously thirty-nine years in peace, and was succeeded by his sister's son, the famous Caractacus, A. D. 35, who is celebrated by Boece, Fordun, Monipenny, Buchanan, and all our other ancient historians, as one of the greatest of the Scottish monarchs. See CARACTACUS. The Scottish historians insist that his fame for wisdom, courage, and riches (accumulated during the peaceable reign of his uncle), being very great, he was invited by the Britons to assist them in expelling the Romans, and that upon his arrival at York, to which the Britons had retired after a defeat, he was elected general of the combined troops of the Britons, Scots, and Picts; who, though equally brave and numerous, amounting to 60,000 men, were defeated by the Romans in three different battles; in the last of which, Caractacus's queen, daughter, and brother, were taken prisoners by Vespasian; and soon after he himself was betrayed to the Romans by his step-mother Cartismandua, and carried prisoner to Rome. Being afterwards restored, with his relations, they add that Caractacus reigned in peace till A. D. 55, when he died.

Caractacus was succeeded by his brother Corbred I. who punished the treachery of Cartismandua by burying her alive. Corbred's sister, the famous Woda, or Voadicea, being married to the king of the Britons, and shamefully used by the Romans, being herself whipped, and her daughters violated, Corbred raised an army of Scots and Picts, expelled the Romans out of the north of England, and took Berwick. About this time the Scots were joined by a numerous tribe of the Murrays from Moravia, under their general Roderic, who assisted them in their wars, receiving the county of Murray in reward of their bravery. After this Woda raised an army of 5000 females, it is said, to revenge the cause of her sex, who, joining the combined forces, defeated the Romans, and killed 7000 of them. But Suetonius coming soon after, with a fresh body of 10,000 troops, the combined army was defeated, and Woda killed herself. Corbred returned to Scotland, where he died in peace in the eighteenth year of his reign, A. D. 72; and was succeeded by Dardanus, nephew of Metellanus; who, proving a cruel tyrant, was beheaded by his nobles A. D. 76. He was succeeded by Corbred II., surnamed Galdus, and called by the Roman historians Galgacus, in whose reign the invasion by Agricola happened. Agricola having completed the conquest of the southern parts, and in a great measure civilised the inhabitants, formed a like plan with regard to Scotland. At this time the Caledonians were rendered more formidable than ever they had been,

by the accession of great numbers from the south; for, though the Romans had civilised the greatest part, many of those savage warriors, disdaining the pleasures of a peaceable life, retired to the northward, where the martial disposition of the Scots better suited their inclination. The utmost efforts of valor, however, were not proof against the discipline of the Roman troops and the experience of their commander. In the third year Agricola had penetrated as far as the river Tay; but the particulars of his progress are not recorded. In the fourth he built a line of forts between the friths of Forth and Clyde, to exclude the Caledonians from the south parts of the island; and the year after he subdued those parts which lay to the south and west of his forts, viz. the counties of Galloway, Can-tyre, and Argyle, which were then inhabited by a people called Cangis, who, as Tacitus expressly informs us, had never before been known to the Romans. Agricola still pursued the same prudent measures by which he had already secured the possession of such a large tract of country, advancing slowly, and building forts as he advanced, to keep the people in obedience. The Scots, though commanded by their king, who is said to have been well acquainted with the manner of fighting and discipline of the Romans, were yet obliged to retreat; but at last, finding that the enemy made such progress as endangered the subjugation of the whole country, he resolved to cut off their communication with the southern parts, and likewise to prevent all possibility of a retreat by sea. Agricola then divided his troops into three bodies, having a communication with each other. Upon this, Galgacus resolved to attack the weakest of the three, which consisted only of the ninth legion, and lay at that time at a place called Lochore, about two miles from Loch-Leven in Fife. The attack was made in the night: and, as the Romans were both unprepared and inferior in number, the Scots penetrated into the heart of their camp, and were making a great slaughter, when Agricola detached some light armed troops to their assistance; by whom the Caledonians in their turn were routed, and forced to fly to the marshes and inaccessible places, where the enemy could not follow them. This engagement has been magnified by the Roman historians into a victory, though it can scarcely be admitted from the testimonies of other historians. The Romans, however, certainly advanced very considerably, and the Scots as constantly retreated, till they came to the foot of the Grampian mountains, where the Caledonians resolved to make their last stand. In the eighth year of the war, Agricola advanced to the foot of the mountains, where he found the enemy ready to receive him. Tacitus has recorded a speech of Galgacus, which some think he fabricated for him, in which he sets forth the aspiring disposition of the Romans, and encourages his countrymen to defend themselves vigorously, as knowing that every thing valuable was at stake. A desperate engagement ensued. In the beginning the Britons had the advantage by the dexterous management of their bucklers; but Agricola having

ordered three Tungrian and two Batavian cohorts, armed with short swords, and embossed bucklers terminating in a point, to attack the Scots, who were armed with long swords, the latter soon found these weapons useless in a close encounter; and as their bucklers only covered a small part of their bodies, they were easily cut in pieces by their adversaries. The most forward of their cavalry and charioteers fell back upon their infantry, and disordered the centre; but, the Britons endeavouring to out-flank their enemies, the Roman general opposed them with his horse; and the Caledonians were at last routed with great slaughter, and forced to fly into the woods, whither the Romans pursued with so little caution that numbers of them were cut off. Agricola, however, having ordered his troops to proceed more regularly, prevented the Scots from attacking and cutting off his men in separate parties, as they had expected; so that this victory proved the greatest stroke to the Caledonians that they had hitherto received. This battle is supposed by some to have been fought in Strathern, half a mile south from the kirk of Comrie; but others imagine the place to have been near Fortingal Camp, a place somewhat farther on the other side of the Tay. Great as this victory was it seems not to have been productive of any solid or lasting advantage to the Romans; as Agricola, instead of putting an end to the war by the immediate conquest of all Caledonia, retreated into the country of the Foresti, commonly supposed to be Forfarshire, though others imagine it to have been the county of Fife. Here he received hostages from part of the Caledonians; and ordered part of his fleet to sail round Britain, that they might discover whether it was an island or a continent. The Romans no sooner had left that part of the country than the Caledonians demolished all the forts they had raised: and, Agricola being soon after recalled by Domitian, the further progress of the Roman arms was stopped, Galgacus proving superior to any of the successors of that general. Galgacus or Corbredus reigned peaceably after this, till A. D. 110, when he died, in the thirty-fifth year of his reign.

From the time of Agricola to that of Adrian, we know little of the affairs of Scotland, excepting that Lugtacus succeeded his father in 110, and proving a cruel tyrant was killed by his nobles, A. D. 113. He was succeeded by his cousin Mogallus, in whose reign Adrian came into Britain. During this interval the Scots must have entirely driven the Romans out of their country, and reconquered all that tract which lay between Agricola's chain of forts and Carlisle on the west, and Newcastle of Tinmouth Bar on the east, which Adrian, on visiting Britain, fixed as the north boundary of the Roman dominions. Here he built a wall between the mouth of the Tine and the Solway Frith, to shut out the barbarians; which did not answer the purpose, as it was only built of turf, and guarded by no more than 18,000 men. See ADRIAN'S WALL. On the departure of Adrian, he left Julius Severus as his lieutenant; but he carried his arms to the north of Adrian's wall; and this

long interval of peace gave so much security to Mogallus that he degenerated into a tyrant, and was murdered by his nobles. The only instance of his tyranny which is recorded, however, is a law by which it was enacted that the estates of such as were condemned should be forfeited to his exchequer, without any part thereof being allotted to their wives and children; an act which subsists almost in its full force to this day in Great Britain and the best regulated European governments. Mogallus was succeeded by his son Conarus, A. D. 149, who, following his father's bad example, was deposed and died in jail, A. D. 163. His cousin Ethod, or Ethodius I., succeeded him, who proved a good monarch, and was successful in several battles against the Romans, under Victorinus, Trebellus, and Pertinax; yet was treacherously murdered by a harper, in his thirty-third year, A. D. 195. The harper was tortured to death. Satrael, Ethod's brother, succeeded him, but becoming tyrannical he was killed by a courtier, in his fourth year, A. D. 199; and was succeeded by his brother Donald I. In the reign of Antoninus Pius the prætor Lollius Urbicus drove the Scots far to the northward, and repaired the chain of forts built by Agricola, which lay between the Carron on the Frith of Forth and Dunglass on the Clyde. These were joined together by turf walls, and formed a much better defence than the wall of Adrian. However, after Antoninus's death, Commodus having recalled Calpurnius Agricola, an able commander, who kept the Scots in awe, a more dangerous war broke out than had ever been experienced by the Romans in that quarter. The Scots, having passed the wall, put all the Romans they could meet with to the sword: but they were soon repulsed by Ulpus Marcellus, a general of consummate abilities, whom Commodus sent into the islands. In a short time the tyrant also recalled this able commander. After his departure, the Roman discipline in Britain suffered a total relaxation; the soldiery grew mutinous, and great disorders ensued: but these were all happily removed by the arrival of Clodius Albinus, a person of great skill and experience in military affairs. His presence for some time restrained the Scots within proper bounds: but, a civil war breaking out between him and Severus, Albinus crossed over to the continent with the greatest part of the Roman forces in Britain; and, meeting his antagonist at Lyons, a dreadful battle ensued, in which Albinus was defeated, and his army cut in pieces. See ROME. The absence of the Roman forces gave encouragement to the Scots to renew their depredations, which they did with such success that this emperor became apprehensive of losing the whole island; on which he determined to go in person and quell these troublesome enemies. The army he now collected was far more numerous than any the Romans had ever sent into Britain; and, being commanded by such an able general as Severus, the Scots must have been very hard pressed. The particulars of this important expedition are very imperfectly related; however, we are assured that Severus lost a vast number of men, it is said not less than 50,000, in his march through Scot-

land. Yet he penetrated to the most northern extremity of the island, and obliged the enemy to yield up their arms. On his return, he built a much stronger fortification to secure the frontiers against the enemy than had ever been done before, and which, in some places, coincided with Adrian's wall, but extended farther at each end. But, in the mean time, the Scots provoked by the brutality of the emperor's son Caracalla, whom he had left regent in his absence, again took arms: on which Severus himself took the field, with a design to extirpate the whole nation; for he gave orders to his soldiers 'not to spare even the child in the mother's belly.' But his death, which happened soon after, put a stop to the execution of his revenge; and his son Caracalla ratified the peace with the Scots. During all these important transactions Scotland was governed by Donald I., who was the first Christian king of this country. He also first coined gold and silver, and died in his 18th year, A. D. 216.

Donald was succeeded by Ethodius II., the son of Ethodius I., who, acting tyrannically, was killed by his guards, A. D. 231. His son Athirco succeeded, and, pursuing similar measures, was deserted by his nobles, and killed himself in his twelfth year, A. D. 242. His successor Nathalocus, behaving also tyrannically, was killed by his nobles in his eleventh year, A. D. 253. He was succeeded by Findocus, the son of Athirco, who proved a good monarch, but was killed at a hunting, by the instigation of his brother Carausius, in his eleventh year, A. D. 264. His other brother Donald II. succeeded, but reigned only one year, being killed in battle by Donald III., lord of the Isles, who usurped the throne, and reigned twelve years, but was killed by Crathilinthus, the son of Findocus, A. D. 277, who proved a good monarch. Mean time his uncle Carausius had acquired great fame by his repeated victories over the Romans, and was elected king of the Britons. See CARAUSIUS and ENGLAND. Crathilinthus died in his twenty-fourth year, A. D. 301, and was succeeded by his cousin Fincormachus, a brave and pious prince, who assisted Octavius, king of the Britons, in a successful battle against the Romans, wherein 16,000 Romans were slain, and 15,000 Britons; for which service Westmoreland and Cumberland were ceded to Scotland. He died in his forty-seventh year, A. D. 348, and was succeeded by Romachus nephew of Crathilinthus, who, for his cruelty, was beheaded by the nobles, A. D. 351. Angusian, another nephew, succeeded, and proved a good prince, but was killed in battle, A. D. 354; and succeeded by Fincormachus, a third nephew of Crathilinthus, who reigned well and conquered the Picts, but was treacherously murdered, A. D. 357, by two Picts, who were tortured to death. He was succeeded by his son, Eugene I., under whom the Roman and Pietish forces were united against the Scots. The Picts were commanded by their king, named Hungus, and the Romans by Maximus, who murdered Valentinian III., and afterwards assumed the empire. The allies defeated Eugene in the county of Galloway; but, Maximus being obliged to return southward on account of an insurrection, the Picts were in their

turn defeated by the Scots. Next year, however, Maximus marched against the Scots; who, being now reduced to extremity, brought into the field not only all the men capable of bearing arms, but the women also. In this engagement the Picts would have been utterly defeated, had they not been supported by the Romans; but Eugene being killed, with the greatest part of his nobility, the Scots were defeated; and so well did the conquerors improve their victory, that their antagonists were at last totally driven out of the country. Some of them took refuge in the Æbudæ Islands, and some in Scandinavia, but most of them fled to Ireland, whence they made frequent descents upon Scotland.

The Picts were at first highly pleased with the victory they had gained over their antagonists; but being commanded to adopt the laws of the Romans, and to choose no king who was not sent them from Rome, they began to repent of their having contributed to the expulsion of the Scots; and in the year 404, when Aistulphus king of the Goths sent over a body of exiled Scots to Britain, under Fergus, the son of Erthus, and grandson of Ethodius, brother of Eugene I., the Picts immediately joined them against the common enemy. The consequence was, that the Britons were pushed to the last extremity; and the Romans being obliged, by the inundation of northern barbarians who poured in upon them, to recal their forces from Britain, the inhabitants were reduced to a most miserable situation. In the time of Fergus II. they were obliged to give up all the country which lies north of Adrian's wall. Fergus II. is celebrated as not only a brave but a pious prince: but, though often successful against the Romans, he was at last killed in battle by them, in his sixteenth year, A. D. 420. His son Eugene II. succeeded him, and imitated his virtues. He obtained several victories over the Romans and their British allies. In his reign Graham, the founder of the family of that name, who was of the blood royal, and whose daughter was married to Fergus II., performed many brave exploits, and destroyed part of Antoninus's Wall, thence called Graham's Dike. In the seventh year of Eugene the Romans were expelled out of Scotland, after a bloody battle; and soon after left the island. Eugene died in his thirty-first year, A. D. 451, and was succeeded by Dongard his brother. It was in Eugene's reign that the Britons were reduced so low, that they were obliged to write that remarkable letter to Rome entitled 'the groans of the Britons.' This, however, not being attended with success, the Britons were obliged to call in the Saxons to their assistance. By these new allies the Scots were defeated in a great battle, and their king Dongard drowned in the Humber, A. D. 457, which put a stop for some time to these incursions. Hitherto we have seen the Scots very formidable enemies to the southern Britons. But, when the Saxons became the enemies of the Britons, the Scots joined in a strict alliance with the latter; neither does it appear that this league was ever dissolved, though the united efforts of the Scots and Britons were not sufficient to preserve the independence of the latter.

II. HISTORY OF SCOTLAND TO THE REIGN OF KENNETH II.—A series of monarchs followed, of whom little is recorded. Dongard was succeeded by his brother Constantine I., who, becoming tyrannical, was killed by one of his nobles, whose daughter he had ravished: A. D. 479, in his twenty-second year. Congal I. the son of Dongard succeeded him, who conquered the Britons in a bloody battle, wherein 20,000 Britons, with Guythel prince of Wales, were slain. He had afterwards some other battles with the Britons and Saxons, wherein little was gained by either party. He died in his twenty-second year, A. D. 501, and was succeeded by his brother Conranus, who also carried on a war against the Saxons, and, along with the Picts, assisted first king Ambrosius, and afterwards the celebrated king Arthur against them with considerable success. This excellent monarch, however, after all his victories, was murdered by traitors in his own chamber, A. D. 335, in his thirty-fourth year. Conranus was succeeded by Eugene III., whose reign was uncommonly peaceable. He died in his twenty-third year, A. D. 558, and was succeeded by his brother Congal II., who was a pious prince, and died in his eleventh year, A. D. 569. His brother Kinnatel succeeded, and reigned well the short time he lived, which was only one year. He was succeeded by Aidanus, the son of Conranus, who joined the Britons against the Saxons. He died in the thirty-fifth year of his age, A. D. 605; and was succeeded by Kenneth I., the son of Congal II., who only reigned one year, and was succeeded by Eugene IV., the son of Aidanus, in 606. He reigned in peace, instituted good laws, and died in his fifteenth year, A. D. 621. He was succeeded by his son Ferquhard I., who, being a vicious tyrant, was deposed by his nobles, and put in prison, where he killed himself, in his eleventh year, A. D. 632. His son Donald IV. succeeded him, and proved a pious and peaceable monarch, but was unfortunately drowned in Loch Ta, while fishing, in his fourteenth year, A. D. 646. He was succeeded by his brother Ferquhard II., who was infamous for his avarice; and died in his eighteenth year, A. D. 664, by the bite of a wolf. Malduinus, the son of Donald IV., succeeded, and was esteemed a pious and just sovereign; but his queen, becoming jealous of him, strangled him in bed, in the twentieth year of his reign, A. D. 684; for which she and her accomplices in the murder were burnt. Eugene V., Malduin's brother, succeeded him, and proved a valiant monarch. He obtained a great victory over Edfred, king of Northumberland, who was killed with 10,000 Saxons, and their ally Bredius king of the Picts fled. Eugene died in his fourth year, A. D. 688. Eugene VI., the son of Ferquhard II., succeeded him, and maintained the character of a religious and peaceable monarch. He only reigned nine years, dying in 697. Amberkeleth, the son of Aidan, succeeded, but was killed in battle by an arrow, in his second year. He was succeeded by his brother Eugene VII., who made peace with Garnard, king of the Picts, who married his daughter Spontana; but she was murdered the year following, in bed, by

two assassins, who had intended to kill her husband. Eugene endowed several churches, and died in his sixteenth year, A. D. 715. Murdach, the son of Amberkeleth, succeeded, and cultivated peace so successfully that he got all differences settled during his reign, among the Britons, Scots, Picts, and Saxons. He also built Whithorn. The venerable Bede flourished in his time. See BENA. Murdach died in his sixteenth year, and was succeeded by Etsinus, or Ethwin, the son of Eugene VII. A. D. 730, who had a peaceable and prosperous reign of thirty-one years. Eugene VIII., the son of Murdach, succeeded him, A. D. 761, and began his reign with an act of justice, by executing Donald lord of the Isles, and the earl of Galloway, for their crimes; but soon after degenerated so greatly himself, that his nobles conspired against and killed him, in the third year of his reign. Fergus III., the son of Etsinus, succeeded Eugene in 764, and married Ethiolia, daughter of the king of the Picts; but, in the third year of his reign, neglecting her for other women, she murdered him; and his servants being taken up on suspicion, she came into the court, confessed the murder, and stabbed herself. Fergus III. was succeeded by Solvathius, the son of Eugene VIII. in 767; who married a daughter of the king of the Britons, and preserved his kingdom in peace and prosperity for twenty years, when he died of the gout. He was succeeded by the celebrated Achaius, the son of Ethwin, in 787; who, after quelling some insurrections in Scotland and Ireland, entered into a treaty of perpetual amity with Charles the Great, king of France, and emperor of Germany, which treaty continued to be observed inviolably between the two nations, till the accession of James VI. to the throne of England. Achaius strengthened this alliance still farther, by marrying a daughter of Charlemagne, and by sending his brother William, with several noblemen, and 4000 troops, to assist Charles in his various wars, wherein they acquired great honor, upon which our ancient historians expatiate very largely; and inform us that, along with these troops, Achaius sent two learned clerks, John and Clement, who gave the Parisians their first taste for learning, and laid the foundation of the University of Paris; and they add that John was afterwards sent to Pavia, to establish learning in Italy.

After this Achaius reigned in peace, and died of age, in the thirty-second year of his reign; leaving one son, named Alpinus, by his second queen Fergusia, sister of Hungus, king of the Picts; which connexion afterwards proved the foundation of the Scottish king's claim upon the Pictish crown. Meantime Congal II., nephew of Achaius, succeeded him, according to the Scottish rule, A. D. 819. He died in the fifth year of his short but peaceful reign; and was succeeded by Dongal, the son of Solvathius, in 824. Meantime a horrible scene of murder and incest was acted in the royal family of the Picts. Dorstologus, their king, was murdered by his brother Eganus, who married his brother's widow Brenna, who soon after murdered him in his bed to avenge the death of her first husband. The

murder of these two princes gave rise to the next remarkable event in the history of Scotland, viz. the war with the Picts. The occasion of the quarrel was, that Dongal king of Scotland claimed, in the name of prince Alpinus, by a former embassy, a right to the Pictish throne; which, however, was rejected by the Picts: upon which both parties had recourse to arms; but, when every thing was ready for the campaign, Dongal was drowned in crossing the river Spey, in the seventh year of his reign, A. D. 731. At this time the dominions of the Scots comprehended the western islands, together with the counties of Argyle, Knapdale, Kyle, Kintyre, Lochaber, and a part of Breadalbane; while the Picts possessed all the rest of Scotland, and part of Northumberland; so that the Picts seem to have been by much the most powerful people of the two. However the Scots appear to have been superior in military skill; for Alpin, the successor of Dongal, having engaged the Pictish army near Forfar, after an obstinate engagement defeated them, and killed their king, though not without the loss of a great number of his own men. The Picts chose Brudus, the son of their former king, to succeed him; but soon after deposed and put him to death on account of his stupidity and indolence. His brother Kenneth shared the same fate on account of his cowardice; till at last another Brudus, a brave and spirited prince, ascended the throne. Having raised a powerful army, he began with offering terms of peace to the Scots; which, however, Alpin rejected, and insisted upon a total surrender of his crown. Brudus on this endeavoured to procure the assistance of Edwin king of Northumberland. Edwin accepted the money; but, pretending to be engaged in other wars, he refused the assistance which he had promised. Brudus, not dismayed by this disappointment, marched resolutely against his enemies; and the two armies came to an engagement near Dundee. The superior skill of the Scots in military affairs was about to have decided the victory in their favor, when Brudus used the following stratagem to preserve his army from destruction:—He caused all his attendants, and even the women who attended his army, to assemble and show themselves at a distance, as a powerful reinforcement coming to the Picts. This struck the Scots with such a panic that all the efforts of Alpin could not recover them; and they were accordingly defeated with great slaughter. Alpin himself was taken prisoner, and soon after beheaded by order of the conqueror. This execution happened at a place now called Pit-alpy, but in former times Bas-Alpin, which in the Gaelic language signifies the death of Alpin; or, as Monipenny has it, Pas-Alpin, i. e. the head of Alpin. His head was afterwards stuck upon a pole, and exposed on a wall.

Alpin was succeeded by his son Kenneth II., A. D. 834, who, being a brave and enterprising prince, resolved to take a most severe revenge for his father's death. The Scots, however, were so dispirited by their late defeat that they were exceedingly averse to any renewal of the war; while, on the other hand, the Picts were so much elated, that they made a law, by which

it became death for any man to propose peace with the Scots, whom they resolved to exterminate; and some of the nobility were expelled the council on account of their opposition to this law. The consequence was that civil dissensions took place among them, and a bloody battle was fought between the opposite parties before the Scots had thought of making any farther resistance. By these distractions Brudus, who had in vain endeavoured to appease them, was so much affected that he died of grief, and was succeeded by his brother Drusken. The new prince also failed in his endeavours to accommodate the civil differences; so that the Scots, by gaining so much respite, at last began to recover their courage; and some of them, having ventured into the Pictish territories, carried off Alpin's head from Abernethy, the capital of their dominions. In the mean time Kenneth gained over the nobility to his side by the following stratagem; which, however ridiculous, is not incredible, if we consider the superstition of that age. Having invited them to an entertainment, the king introduced into the hall where they slept a person clothed in a robe made of the skins of fishes, which made such a luminous appearance in the dark that he was mistaken for an angel or some supernatural messenger. To add to their terror he denounced, through a speaking-trumpet, the most terrible judgments if war was not immediately declared against the Picts, the murderers of the late king. In consequence of this celestial admonition war was immediately renewed with great vigor. The Picts were not deficient in their preparations, and had now procured some assistance from England. The first battle was fought near Stirling; where the Picts, being deserted by their English auxiliaries, were utterly defeated. Drusken escaped by the swiftness of his horse, and a few days after made application to Kenneth for a cessation of hostilities; but, as the Scottish monarch demanded a surrender of all the Pictish dominions, the treaty was instantly broken off. Kenneth pursued his good fortune, and conquered the counties of Mearns, Angus, and Fife; but, as he marched against Stirling, he received intelligence that these counties had again revolted, and cut off all the garrisons which he had left, and that Drusken was at the head of a considerable army in these parts. On this Kenneth hastened to oppose him, and a negotiation again took place. The result was still unfavorable. Kenneth insisted on an absolute surrender of the counties of Fife, Mearns, and Angus; which being refused, both parties prepared for a decisive battle. The engagement was very bloody and desperate, the Picts fighting like men in despair. Drusken renewed the battle seven times, but at last was entirely defeated and killed, and the counties in dispute became the immediate property of the conqueror. Kenneth did not fail to improve his victory by reducing the rest of the Pictish territories; which he is said to have done with the greatest cruelty, and even to have totally exterminated the inhabitants. The capital, called Camelon (supposed to have been Abernethy), held out four months; but was at last taken by surprise, and every living creature destroyed.

This was followed by the reduction of the Maiden Castle, now that of Edinburgh; which was abandoned by the garrison, who fled to Northumberland. After the reduction of these important places the rest of the country made no great resistance, and Kenneth became master of the whole kingdom of Scotland in the present extent of the word.

III. HISTORY OF SCOTLAND FROM THE CONQUEST OF THE PICTS UNTIL THE DEATH OF ALEXANDER III.—Besides this war with the Picts, Kenneth is said to have been successful against the Saxons, though of these wars we have very little account. Having reigned ten years in peace after his subjugation of the Picts, and composed a code of laws for the good of his people, Kenneth died of a fistula, at Fort Teviot, near Duplin, in Perthshire, A. D. 854. Before his time the seat of the Scottish government had been in Argyleshire; but he removed it to Scone, by transferring thither the famous black stone, supposed to be the palladium of Scotland, and which was afterwards carried off by Edward I. of England, and lodged in Westminster Abbey. Kenneth II., surnamed the Great by some historians, was succeeded by his brother Donald V., who is represented as a man of the worst character; so that the remaining Picts, who had fled out of Scotland were encouraged to apply to the Saxons for assistance, promising to make Scotland tributary to the Saxon power after it should be conquered. This proposal was accepted, and the confederates invaded Scotland with a powerful army, and took the town of Berwick; however, they were soon after defeated by Donald, who took also their ships and provisions. This capture proved their ruin; for, some of the ships being loaded with wine, the Scots indulged themselves so much with that liquor that they became incapable of defending themselves; and the consequence of this was that the confederates, rallying their troops, attacked them in that state of intoxication. The Scots were defeated with excessive slaughter; 20,000 of them lay dead on the spot, the king and his principal nobility were taken prisoners, and all the country from the Tweed to the Forth became the property of the conquerors. Still, however, the conquerors were unable to pursue their victory farther, and a peace was concluded, on condition that the Saxons should be masters of all the conquered country. Thus the Forth and Clyde became the southern boundaries of the Scottish dominions. It was agreed that the Forth should from that time forward be called the Scots Sea; and it was made capital for any Scotchman to set his foot on English ground. They were to erect no forts near the English confines, to pay an annual tribute of £1000, and to give up sixty of the sons of their chief nobility as hostages. A mint was erected by the Saxon prince named Osbreth, at Stirling; and a cross raised on the bridge of that place, with the following inscription, implying that this place was the boundary between Scotland and England:—

Anglos a Scotis separat crux ista remotis :
Arma hic stant Bruti stant Scoti sub hac cruce tuti.

After the conclusion of this treaty, so humiliating

to the Scots, the Picts, finding that their interest had been entirely neglected, fled to Norway, while those who remained in England were massacred. Donald shared the common fate of unfortunate princes, being dethroned and shut up in prison, where he killed himself, in 858. But the character of Donald, and the whole account of these transactions, rests on the credit of a single author, namely Boece; for other writers represent Donald as a hero, and successful in his wars; but the obscurity in which the whole of this period of Scottish history is involved renders it impossible to determine these matters.

Donald V. was succeeded by his nephew Constantine II., the son of Kenneth II., in whose reign Scotland was first invaded by the Danes, who proved such formidable enemies to the English. This invasion was occasioned by some exiled Picts who fled to Denmark, where they prevailed upon the king of that country to send his two brothers, Hunger and Hubba, to recover the Pictish dominions from Constantine. These princes landed on the coast of Fife, where they committed the most horrid barbarities, not sparing even the ecclesiastics who had taken refuge in the island of May at the mouth of the Forth. Constantine defeated one of the Danish armies commanded by Hubba, near the water of Leven; but was himself defeated and taken prisoner by Hungar, who caused him to be beheaded at a place since called the Devil's Cave, in 874. This unfortunate action cost the Scots 10,000 men; but the Danes seem not to have purchased their victory very easily, as they were obliged immediately afterwards to abandon their conquests, and retire to their own country. However the Danish monuments that are still to be seen in Fife leave no room to doubt that many bloody scenes had been acted here between the Scots and Danes besides that above mentioned. Constantine II. was succeeded by his brother Eth, or his son, as Monipenny styles him, surnamed the Swift-footed, from his agility. Being devoted to luxury, his nobles took him and put him in prison, where he died the third day after of melancholy, in the second year of his reign, A. D. 876. He was succeeded by Gregory the son of Dongal, contemporary with Alfred of England, and both princes deservedly acquired the surname of Great. The Danes at their departure had left the Picts in possession of Fife. Against them Gregory immediately marched, and quickly drove them into the north of England, where their confederates were already masters of Northumberland and York. In their way thither they threw a garrison into the town of Berwick; but this was presently reduced by Gregory, who put to the sword all the Danes, but spared the lives of the Picts. From Berwick Gregory pursued the Danes into Northumberland, where he defeated them, and passed the winter in Berwick. He then marched against the Cumbrians, who, being mostly Picts, were in alliance with the Danes. Them he easily overcame, and obliged to yield up all the lands they had formerly possessed belonging to the Scots, at the same time that he agreed to protect them from the Danes. In a short time, however, Constantine the king of the Cumbrians violated the

convention he had made, and invaded Annandale; but was defeated and killed by Gregory near Lochmaben. After this victory Gregory reduced the counties of Cumberland and Westmoreland, which, it is said, were ceded to him by Alfred the Great; and indeed the situation of Alfred's affairs at this time renders such a cession probable. Gregory next engaged in a war with the Irish, to support Donach, an Irish prince, against two rebellious noblemen. The Irish were the first aggressors, and invaded Galway; but, being repulsed with great loss, Gregory went over to Ireland in person, where the two chieftains, who had been enemies to each other before, now joined their forces to oppose the common enemy. The first engagement proved fatal to one of their chiefs named Brian, who was killed with a great number of his followers. After this victory Gregory reduced Dundalk and Drogheda. On his way to Dublin he was opposed by a chieftain named Cornell, who shared the fate of his confederate, being also killed, and his army entirely defeated. Gregory then became guardian to the young prince whom he came to assist, appointed a regency, and obliged them to swear that they would never admit into the country either a Dane or an Englishman without his consent. Having then placed garrisons in the strongest fortresses, he returned to Scotland, where he built the city of Aberdeen; and died in 894, at his castle of Dundore in the Garioch, in the eighteenth year of his reign.

Gregory was succeeded by Donald VI. the son of Constantine II., who imitated the virtues of his predecessor. The Scottish historians unanimously agree that Northumberland was at that time in the hands of their countrymen; while the English as unanimously affirm that it was subject to the Danes, who paid homage to Alfred. Be this as it will, however, Donald continued to live on good terms with the English monarch, and sent him a body of forces, who proved of considerable advantage to him in his wars with the Danes. The clans of the Murrays and Rosses having invaded each other, and commenced a bloody civil war, Donald came upon them with a great army, and punished the ringleaders in 903. He died at Forres in 905. He was succeeded by Constantine III., the son of Eth, who married a daughter of the prince of Wales; he also entered into an alliance with the Danes against the English. The reason of this confederacy was that the English monarch, Edward the Elder, finding the Scots in possession of the northern counties of England, made such extravagant demands upon Constantine as obliged him to ally with the Danes to preserve his dominions in security. However, the league subsisted only for two years, after which the Danes found it more for their advantage to resume their ancient friendship with the English. Constantine afterwards appointed the presumptive heir to the Scottish crown, Malcolm, or according to some Eugene, the son of the late king Donald VI., prince of the southern counties, on condition of his defending them against the attacks of the English. The young prince had soon an opportunity of exerting his valor; but, not behaving with the requisite caution, he

was defeated with the loss of almost all his army, he himself being carried wounded out of the field; and, in consequence of this disaster, Constantine was obliged to do homage to Edward for the possessions he had to the south of the Scottish boundary. In the beginning of the reign of Athelstan, the son of Edward the Elder, the northern Danes were encouraged by some conspiracies formed against that monarch to throw off the yoke; and their success was such that Athelstan entered into a treaty with Sithrac the Danish chief, and gave him his daughter in marriage. Sithrac, however, did not long survive his nuptials; and his son Guthred, endeavouring to throw off the English yoke, was defeated, and obliged to fly into Scotland. This brought on a series of hostilities between the Scots and English, which in 938 issued in a general engagement. At this time the Scots, Irish, Cumbrians, and Danes, were confederated against the English. The Scots were commanded by their king Constantine, the Irish by Anlaf, the brother of Guthred the Danish prince, the Cumbrians by their own sovereign, and the Danes by Froda. The generals of Athelstan were Edmund his brother, and Turketil his favorite. The English attacked the entrenchments of the confederates, where the chief resistance they met with was from the Scots. Constantine was in the utmost danger of being killed or taken prisoner, but was rescued by the bravery of his soldiers; however, after a most obstinate engagement, the confederates were defeated with such slaughter that the slain are said to have been innumerable. The consequence was, that the Scots were deprived of all their possessions south of the Forth; and Constantine, quite dispirited by his misfortune, resigned the crown to Malcolm, and retired to the monastery of the Culdees at St. Andrews, where he became a canon, and died five years after, in 943. The distresses which the English sustained in their subsequent wars with the Danes gave the Scots an opportunity of retrieving their affairs; and in 944 Malcolm I., the successor of Constantine, was invested with the sovereignty of Northumberland, on condition of his holding it as a fief of the crown of England, and assisting in defence of the northern border. Soon after the conclusion of this treaty, Malcolm going to the county of Moray, to settle some disturbances, was treacherously murdered in the ninth year of his reign. The murderers were all apprehended, tortured, and put to death. Malcolm was succeeded by his son Indulfus, A. D. 952. In this reign the Danes became extremely formidable by their invasions, which they now renewed with greater fury than ever, being exasperated by the friendship subsisting between the Scots and English monarchs. Haquin, king of Norway, also attempted an invasion, but was defeated by Indulfus. The first descent of the Danes was upon East Lothian, where they were soon expelled, but crossed over to Fife. Here they were again defeated, and driven out; and so well had Indulfus guarded the coasts that they could not find an opportunity of landing; till, having seemed to steer towards their own country, the Scots were thrown off their guard, and the Danes on a sudden made good their land-

ing at Cullen, in Banffshire. Here Indulfus soon came up with them, attacked their camp, and drove them towards their ships; but was killed in an ambuscade, into which he fell during his pursuit, in the ninth year of his reign. He was succeeded by Duffus the son of Malcolm I. A. D. 961, to whom historians gave an excellent character; but, after a reign of five years, he was murdered in 966. He was succeeded by Culen the son of Indulfus, who had been nominated prince of Cumberland, in his father's lifetime, as heir-apparent to the throne. He is represented as a very degenerate prince; and is said to have given himself up to sensuality in a manner almost incredible, being guilty of incontinence not only with women of all ranks, but even with his own sisters and daughters. The people in the mean time were fleeced to support the extravagance and luxury of their prince. In consequence of this, an assembly of the states was convened at Scone for the resettling of the government; but on his way thither Culen was assassinated in the fourth year of his reign, near the village of Mothven, by Rohard, or Rodard, thane of Fife, whose daughter he had debauched. The provocations which Culen had given to his nobility seem to have rendered them totally untractable and licentious; which gave an occasion to a remarkable revolution in the reign of Kenneth III., who succeeded Culen, A. D. 970. This prince, being a man of great resolution, began with relieving the common people from the oppressions of the nobility, which were now intolerable; and this plan he pursued with so much success that, having nothing to fear from the great barons, he ordered them to appear before him at Lanerk; but the greatest part, conscious of their demerits, did not attend. The king so well dissembled his displeasure that those who came were quite charmed with his affability, and the noble entertainment he gave them; in consequence of which, when an assembly was called next year, the guilty were encouraged to appear as well as the innocent. No sooner had this assembly met, however, than the place of meeting was beset with armed men. The king then informed them that none had any thing to apprehend, excepting such as had been notorious offenders; and these he ordered to be immediately taken into custody, telling them that their submitting to public justice must be the price of their liberty. They were obliged to accept the king's offer, and the criminals were punished according to their deserts. About this time Edgar, king of England, finding himself hard pressed by the Danes, found means to unite the king of Scotland and the prince of Cumberland along with himself in a treaty against the Danes; which gave occasion to a report that Kenneth had become tributary to the king of England. This, however, is utterly denied by all the Scottish historians; who affirm that Kenneth cultivated a good correspondence with Edgar, both because he expected assistance in defending his coasts, and because he intended entirely to alter the mode of succession to the throne. About this time the Danes made a dreadful invasion. Their original intention seems to have been to land on some part of the

English coasts; but, finding them probably too well guarded, they landed at Montrose in Scotland, committing every where the most dreadful ravages. Kenneth at that time was at Stirling, and quite unprepared; however, having collected a handful of troops, he cut off many of the enemy as they were straggling up and down, but could not prevent them from besieging Perth. Nevertheless, as the king's army constantly increased, he resolved to give the enemy battle. The scene of this action was at Luncarty, near Perth. The king is said to have offered ten pounds in silver, or the value of it in land, for the head of every Dane which should be brought him; and an immunity from all taxes to the soldiers who served in his army, provided they should be victorious; but, notwithstanding the utmost efforts of the Scots, their enemies fought so desperately that Kenneth's army fled, and must have been totally defeated, had not the fugitives been stopped by a yeoman, named Thomas, and his two sons, who were coming up to the battle. Buchanan and Boece inform us, that these countrymen were ploughing in a field hard by the scene of action, and, perceiving that their countrymen fled, they loosed their oxen, and made use of the yokes as weapons, with which they first obliged their countrymen to stand, and then fell upon their enemies. The fight was now renewed with such fury on the part of the Scots, that the Danes were utterly defeated; and, after the battle, the king rewarded Thomas with the barony of Errol, in the Carse of Gowrie, ennobled his family, and gave them an armorial bearing of a bloody yoke in a field, alluding to the rustic weapons with which they had achieved this glorious exploit; and gave him also the surname of Hay, because, when weary with the fatigue of his exertions, he had said Oh Hay! After this Kenneth stained all his glory by poisoning prince Malcolm, lord of Cumberland, &c., the heir apparent of the crown: and, to secure the succession more effectually in his own family, prevailed on the states to make the succession hereditary, without regard to infancy or age. After this, either the king's conscience persuaded him, or the superstition of the times invented the story, that he heard a voice from heaven, threatening him and his son with vengeance for the murder of the prince. In either case the threatening was fulfilled. In 994 Kenneth was murdered by a lady named Fenella, whose son he had caused to be put to death. The murder was perpetrated in Fenella's castle, at Fettercairn, in the Mearns, where she had persuaded the king to pay her a visit, by an automaton image of the king in brass, which held out a golden apple in its hand; which Fenella desired the king to take, but he had no sooner done so, than the internal springs moved a cross-bow held by the image, and shot the king through the body. His attendants waited long near the place; but, being at length tired out, they broke open the doors, and found their king murdered; upon which they laid the castle in ashes; but Fenella had escaped by a postern.

The throne was then seized by a usurper named Constantine IV. the son of Culen, who,

being killed in battle at Cramond, after a reign of a year and a half, was succeeded by Grim, the son of king Duffus; and he again was defeated and killed by Malcolm the son of Kenneth, the lawful heir of the Scottish throne, A. D. 1004. After this victory, however, Malcolm did not immediately assume the sovereignty; but asked the crown from the nobles, although, by the law passed in the reign of Kenneth, the succession to the throne of Scotland was now hereditary. This they immediately granted, and Malcolm was crowned king, A. D. 1004. He joined himself in alliance with the king of England; and proved so successful against the Danes in England, that Sweno their king resolved to direct his whole force against him by an invasion of Scotland. His first attempt, however, proved very unsuccessful; all his soldiers being cut in pieces, except some few who escaped to their ships, while the loss of the Scots amounted to only thirty men. But in the mean time, Duncan prince of Cumberland, having neglected to pay his homage to the king of England, the latter invaded that country in conjunction with the Danes. Malcolm took the field against them, and defeated both; but while he was thus employed in the south, a new army of Danes landed in the north at the mouth of the Spey. Malcolm advanced against them with an army much inferior in number; and his men, neglecting every thing but the blind impulses of fury, were almost all cut to pieces: Malcolm himself being desperately wounded. By this victory the Danes were so much elated that they sent for their wives and children, intending to settle in this country. The castle of Nairn, then thought almost impregnable fell into their hands; and the towns of Elgin and Forres were abandoned both by their garrisons and inhabitants. The Scots were every-where treated as a conquered people, and employed in the most servile offices by the haughty conquerors; who, to render the castle of Nairn, as they thought, absolutely impregnable, cut through the small isthmus which joined it to the land. All this time, however, Malcolm was raising forces in the southern counties; and, having at last got an army together, he came up with the Danes at Murtloch, near Balveny, which appears at this day to have been a strong Danish fortification. Here he attacked the enemy; but, having the misfortune to lose three of his general officers, he was again obliged to retreat. However, the Danish general happening to be killed in the pursuit, the Scots were encouraged to renew the fight with such vigor that they obtained at last a complete victory; but suffered so much that they were unable to derive from it all the advantages which might otherwise have accrued. On the news of this ill success, Sweno ordered two fleets, one from England and another from Norway, to make a descent upon Scotland, under Camus, one of his most renowned generals. The Danes attempted to land at the mouth of the Forth; but, finding every place there well fortified, they were obliged to move farther northward, and effected their purpose at Redhead in Angus-shire. The castle of Brechin was first besieged; but, meeting with a stout resistance there, they laid the town and

church in ashes. Thence they advanced to the village of Panbride, and encamped at a place called Karbuddo. Malcolm in the mean time was at hand with his army, and encamped at a place called Barr, in the neighbourhood of which both parties prepared to decide the fate of Scotland; for, as Moray and the northern provinces were already in the possession of the Danes, it was evident that a victory at this time must put them in possession of the whole. The engagement was desperate, and so bloody that the rivulet which proceeds from Loch Tay is said to have had its waters dyed with the blood of the slain; but at last the Danes gave way and fled. There was at that time in the army of Malcolm, a young prince of the name of Keith, who commanded a colony of the Catti, a German tribe, who settled in the north of Scotland, and gave name to Caitliness. He pursued Canus; and, having overtaken him, engaged and killed him; but another Scottish officer coming up, disputed with Keith the glory of the action. While the dispute lasted Malcolm came up; who suffered them to decide it by single combat. In this second combat Keith proved also victorious, and killed his antagonist. The dying person confessed the justice of Keith's claim; and Malcolm dipping his finger in his blood marked the shield of Keith with three strokes, pronouncing the words *Veritas vincit*, Truth overcomes, which has ever since been the armorial bearing and motto of the family of Keith. The shattered remains of the Danish forces reached their ships; but being driven back by contrary winds, and provisions becoming scarce, they put ashore 500 men on the coast of Buchan, to procure them some food: but, their communication with the ships being soon cut off, they fortified themselves as well as they could, and made a desperate resistance; but at last were all put to the sword. The place where this massacre happened is still called *Crudane*; being probably an abbreviation of *Cruor Danorum*, i. e. the blood of the Danes, a name imposed on it by the ecclesiastics of those days. Sweno, not yet discouraged, sent his son Canute, afterwards king of England, and one of the greatest warriors of that age (see *CANUTE*), into Scotland, with an army more powerful than any that had yet appeared. Canute landed in Buchan; and, as the Scots were much weakened by such a long continued war, Malcolm thought proper to act on the defensive. But the Scots, who now thought themselves invincible, demanded to be led on to a general engagement. Malcolm complied with their desire, and a battle ensued; in which, though neither party had much reason to boast of victory, the Danes were so much reduced that they willingly concluded a peace on the following terms, viz.—That the Danes should immediately depart Scotland; that as long as Malcolm and Sweno lived neither of them should wage war with the other, or help each other's enemies; and that the field in which the battle was fought should be set apart and consecrated for the burial of the dead. These stipulations were punctually fulfilled by Malcolm, who built in the neighbourhood a chapel dedicated to Olaus, the tutelar saint of these northern nations. After all these glorious exploits, and becoming

the second legislator in the Scottish nation, Malcolm is said to have stained the latter part of his reign with avarice and oppression; in consequence of which he was murdered at the age of eighty, after he had reigned above thirty years. This assassination was perpetrated when he was on his way to Glamis. His own domestics are said to have been privy to the murder, and to have fled along with the conspirators; but, in passing the lake of Forfar on the ice, it gave way with them, and they were all drowned, their bodies being discovered some days after. This account is confirmed by the sculptures upon some stones erected near the spot; one of them which is still called Malcolm's gravestone, and all of them exhibit some rude representations of the murder and the fate of the assassins.

Malcolm II. was succeeded in 1034 by his grandson Duncan I., but he is said to have had another grandson, by a daughter named Dowoda, viz. the famous Macbeth; though some are of opinion that Macbeth was not the grandson of Malcolm, but of Fenella who murdered Kenneth III. The first years of Duncan's reign passed in tranquility, but domestic broils soon took place on the following occasion. Banquo, thane of Lochaber, and ancestor to the royal family of Stuart, acted then in the capacity of steward to Duncan, by collecting his rents; but, being very rigid in the execution of his office, he was way-laid, robbed, and almost murdered. Of this outrage Banquo complained, as soon as he recovered of his wounds and could appear at court. The robbers were summoned to surrender themselves to justice; but, instead of obeying, they killed the messenger. Macbeth represented this in such strong terms that he was sent with an army to reduce the insurgents, who had already destroyed many of the king's friends. This commission he performed with such success that the rebel chief put an end to his own life; after which Macbeth sent his head to the king, and then proceeded with the utmost severity against the insurgents, who were composed of Irishmen, Islanders, and Highlanders. This insurrection was scarcely quelled, when the Danes landed again in Fife; and Duncan put himself at the head of an army, having the thanes Macbeth and Banquo serving under him. The Danes were commanded by Sweno king of Norway, and eldest son of Canute. He proceeded with all the barbarity customary with his nation, putting to death men, women, and children, who fell in his way. A battle was fought between the two nations near Culross, in which the Scots were defeated; but the Danes purchased their victory so dearly that they could not improve it; and Duncan retreated to Perth, while Macbeth was sent to raise more forces. In the mean time Sweno laid siege to Perth, which was defended by Duncan and Banquo. The Danes were so much distressed for want of provisions, that they at last consented to treat of a peace, provided the pressing necessities of the army were relieved. The Scottish historians inform us that this treaty was set on foot to amuse Sweno, and gain time for the stratagem which Duncan was preparing. This was no other than a barbarous contrivance of infusing intoxicating herbs into

the liquors that were sent along with the other provisions to the Danish camp. These soporifics had their intended effect; and, while the Danes were under their influence, Macbeth and Banquo broke into their camp, where they put all to the sword, and it was with difficulty that some of Sweno's attendants carried him on board the only ship of all the fleet that returned to Norway. It was not long, however, before a fresh body of Danes landed at Kinghorn, in Fifeshire; but they were entirely defeated by Macbeth and Banquo. Such of the Danes as escaped fled to their ships; but before they departed they obtained leave to bury their dead in Inchcolm, a small island lying in the Forth, where one of their monuments is still to be seen. Thus ended the formidable invasions of the Danes; after which Duncan applied himself to the administration of justice, and the reformation of the manners of his subjects. Macbeth, however, who had obtained great reputation by his success against the Danes, began to form ambitious designs, and to aspire to the crown itself. The fables relating to his usurpation are so well known, from the tragedy composed by Shakspeare which bears the name of Macbeth, that we need not take notice of them; but only mention the fact, that Duncan, not knowing he had so dangerous an enemy near his person, was murdered at Inverness, in the sixth year of his reign, by Macbeth, who succeeded him in the throne, A. D. 1040. During the greatest part of the reign of the usurper, Malcolm, the true heir to the crown of Scotland, kept close in his principality of Cumberland, without any thoughts of ascending his father's throne. Macbeth for some time governed with moderation, and enacted some excellent laws, but at last became a tyrant. Becoming jealous of Banquo, the most powerful subject in his dominions, he invited him to an entertainment, and caused him to be treacherously murdered. His son Fleance was destined to the same fate, but escaped to Wales. After him Macduff, the thane of Fife, was the most powerful person in Scotland; for which reason, Macbeth determined to destroy him. But Macduff, understanding this, fled to France; and Macbeth cruelly put to death his wife and infant children, and sequestered his estate. Macduff vowed revenge, and encouraged Malcolm to attempt to dethrone the tyrant. Macbeth opposed them with his whole force; but, being defeated in a pitched battle, he took refuge in the most inaccessible places of the Highlands, where he defended himself for two years; but in the mean time Malcolm was acknowledged king of Scotland, and crowned at Scone, A. D. 1055. The war between Macbeth and the new king continued for two years after the coronation of the latter; but at last he was killed in a sally by Macduff. However, the public tranquillity did not end with his life. His followers elected one of his kinsmen named Lullach, surnamed the Idiot, to succeed him: but he, unable to withstand Malcolm, withdrew to the north, where, being pursued, he was killed at Essey, in Strathbogie, after a reign of four months.

Malcolm being now established on the throne, A. D. 1057, began with rewarding Macduff for

his great services; and conferred upon his family four extraordinary privileges:—1. That they should place the king in his chair of state at the coronation. 2. That they should lead the van of all the royal armies. 3. That they should have a regality within themselves: and, 4. That if any of Macduff's family should happen to kill a nobleman unpremeditatedly, he should pay twenty-four marks of silver, and if a plebeian, twelve. The king's next care was to reinstate in their father's possessions all the children who had been disinherited by the late tyrant; which he did in a convention of his nobles held at Forfar. In the time of William the Conqueror, Malcolm was engaged in a dangerous war with England, the occasion of which was as follows: On the death of Edward the Confessor, Harold II. seized the throne of England, to the prejudice of Edgar Atheling the true heir to the crown. However, he created him earl of Oxford, and treated him with great respect; but, on the defeat and death of Harold, William discovered some jealousy of Edgar. Soon after, William having occasion to pay a visit to his dominions in Normandy, he appointed Edgar to attend him, along with some other noblemen whom he suspected to be in his interest; but, on his return to England, he found the people in a state of such disaffection to his government, that he proceeded with great severity, and great numbers of his subjects were obliged to take refuge in Cumberland and the southern parts of Malcolm's dominions. Edgar had two sisters, Margaret and Christina: these, with his two chief friends, Gospatric and Marteswin, soon made him sensible how precarious his life was under such a jealous tyrant, and persuaded him to make preparations for flying into Hungary or some foreign country. Edgar accordingly set sail with his mother Agatha, his two sisters, and a great train of Anglo-Saxon noblemen; but by stress of weather was forced into the Frith of Forth, where the illustrious exiles landed at the place since called the Queen's Ferry. Malcolm no sooner heard of their landing than he paid them a visit in person; and at this visit became enamoured of the princess Margaret. In consequence of this the chief of Edgar's party repaired to the court of Scotland. William soon made a formal demand of Edgar; and, on Malcolm's refusal, declared war against him. William was the most formidable enemy the Scots had ever encountered, as having not only the whole force of England, but of Normandy at his command. However, as he had tyrannised most unmercifully over his English subjects, they were much more inclined to assist his enemies than himself; and he even found himself obliged to give up the county of Northumberland to Gospatric, who had followed Edgar, upon condition of his making war on the Scots. This nobleman accordingly invaded Cumberland; in return for which Malcolm ravaged Northumberland in a dreadful manner, carrying off an immense booty, and inviting the Irish and Danes to join him: for even at this time the Danes kept up their claims upon the crown of England. The Irish were also interested in advancing the cause of Harold's three sons, who had put themselves

under their protection; besides their view to obtain plunder. However, as all these views tended to the destruction of William's power, a union was formed against him; but, when they came to stipulations, the parties disagreed. The three sons of Harold, with a body of Irish, made a descent upon Somersetshire, and defeated a body of English; but the Irish having obtained an opportunity of acquiring some booty immediately retired with it. The Danes landed at the mouth of the Humber from forty small ships, where they were joined by Edgar and his party; and had the allies been unanimous, it is probable that William's government would have been overthrown. By this time the latter had taken from Gospatric the earldom of Northumberland, and given it to Robert Cummin one of his Norman barons; but the Northumbrians having joined Gospatric, and received the Danes as their countrymen, murdered Cummin and all his followers at Durham. After this they laid siege to the forts built by William in Yorkshire: but, not being able to reduce them, the English, Scots, and Danes, united their forces, and took the city of York, and put the garrison of 3000 Normans to the sword; this success was followed by many incursions and ravages, in which the Danes and Northumbrians acquired great booty. It soon appeared, however, that these allies had the interest of Edgar no more at heart than the Irish: and that all the dependence of this forlorn prince was upon Malcolm and the few Englishmen who had followed his fortune: for the booty was no sooner obtained than the Danes retired to their ships, and the Northumbrians to their habitations. In the mean time William, having raised a considerable army, advanced northwards. He first took a severe revenge upon the Northumbrians; then reduced the city of York, and put to death a great number of the inhabitants; when, perceiving that danger was still threatened by the Danes, he bribed them with a sum of money to depart to their own country. Malcolm was now left alone to encounter this formidable adversary; and, finding himself unable to oppose so great a force, withdrew to his own dominions, where he remained for some time upon the defensive. His second invasion took place in 1071, while William was employed in quelling an insurrection in Wales. He is said at this time to have behaved with the greatest cruelty. Bursting into England by Cumberland he ravaged Teesdale; and at a place called Hundreds-keld massacred several English noblemen, with all their followers. Thence he marched to Cleveland, in the north riding of Yorkshire; which he also ravaged with the utmost cruelty, sending back the booty with part of the army to Scotland: after which he pillaged the bishopric of Durham, where he is said not to have spared the most sacred edifices. Meanwhile Gospatric, to whom William had again ceded Northumberland, attempted to make a diversion in his favor by invading Cumberland; but, being defeated by Malcolm, he was obliged to shut himself up in Bamborough castle; while the latter returned in triumph to Scotland, where he married the princess Margaret, who proved a most excellent queen. In 1072 William, having

greatly augmented his army, in his turn invaded Scotland. The particulars of the war are unknown; but it ended to the disadvantage of the Scots, as Malcolm agreed to pay him homage. The English historians contend that the homage was for the whole of his dominions; but the Scots with more show of reason affirm that it was only for those he possessed south of the Tweed. On the conclusion of the peace a cross was erected at Stanmore in Richmondshire, with the arms of both kings, to serve as a boundary between the possessions of William and the feudal dominions of Malcolm. Part of this monument, called Re-cross, or rather Roy-cross, or the cross of the kings, was entire in the days of Camden. This peace produced the greatest alteration in the manners of the Scots. What chiefly contributed to this was the excellent disposition of queen Margaret, who was, for that age, a pattern of piety and politeness: and next to this was the number of foreigners who had settled in Scotland; among whom were some Frenchmen. Malcolm himself, also, was far from being averse to a reformation, and even set the example. During her husband's absence in England queen Margaret had chosen for her confessor one Turgot, whom she also made her assistant in her intended reformation. She began with new-modelling her own court; into which she introduced the offices, furniture, and manner of living, common in the more polite nations of Europe; dismissing from her service all who were noted for immorality and impiety. Turgot she charged, on pain of her displeasure, to give his real sentiments on the state of the kingdom, and was informed by him that faction reigned among the nobles, rapine among the commons, and licentiousness among all ranks. Above all, he complained that the kingdom was destitute of a learned clergy. This the queen represented to her husband, and prevailed upon him to set about the work of reformation; in which, however, he met with considerable opposition. The Scots, accustomed to oppress their inferiors, thought all restrictions of their power were as many steps towards their slavery. The introduction of foreign offices and titles confirmed them in this opinion; and such a dangerous insurrection happened in Moray and some of the northern counties, that Malcolm was obliged to march against the rebels. He found them indeed very formidable; but they were so much intimidated by his resolution, that they intreated the clergy who were among them to intercede with the king. Malcolm received their submission, but refused to grant an unconditional pardon. He gave all the common people indeed leave to return to their habitations, but obliged the higher ranks to surrender themselves to his pleasure. Many of the most guilty were put to death, or had their estates confiscated. This severity checked the rebellious spirit of the Scots; upon which Malcolm returned to his plans. Still, however, he found himself opposed even in those abuses which were most obvious and glaring, and durst not entirely abolish many odious customs. In those days the Scots were without the practice of saying grace after meals, till it was introduced by Margaret, who gave a glass of

wine to those who remained at the royal table and heard the thanksgiving; which gave rise to the term of the grace-drink. Besides this, the terms of the duration of Lent and Easter were fixed; the king and queen bestowed large alms on the poor, and the latter washed the feet of six of their number; many churches, monasteries, &c., were erected, and the clerical revenues augmented. In 1077 Malcolm again invaded England; but with what success is not well known. In 1083, after the death of the conqueror, he again espoused the cause of Edgar Etheling. At the time of Edgar's arrival Malcolm was at the head of a brave and well disciplined army, with which he penetrated a great way into the country of the enemy; and, it is said, returned home with an immense booty. William resolved to revenge the injury, and prepared great armaments both by sea and land for the invasion of Scotland. His success, however, was not answerable to his preparations. His fleet was dashed to pieces by storms, and almost all on board perished. Malcolm had also laid waste the country through which his antagonist was to pass, in such an effectual manner that William lost a great part of his troops by fatigue and famine; and, when he arrived in Scotland, found himself in a situation very little able to resist Malcolm, who was advancing with a powerful army. In this distress Rufus had recourse to Robert de Mowbray earl of Northumberland, who dissuaded him from venturing a battle, but advised him by all means to open a negotiation through the English noblemen who resided with Malcolm. Edgar undertook the negotiation, on condition of his being restored to his estates in England. Malcolm had never yet recognised the right of William Rufus to the throne of England, and therefore refused to treat with him as a sovereign prince; but offered to enter into a negotiation with his brother Robert, surnamed Curt-hose, from the shortness of his legs. The two princes accordingly met; and Malcolm, having shown Robert the disposition of his army, offered to cut off his brother William, and to pay to him the homage he had been accustomed to pay to the Conqueror for his English dominions. But Robert generously answered that he had resigned to William his right of primogeniture in England; and that he had even become one of William's subjects, by accepting of an English estate. An interview with William then followed; in which it was agreed that the king of England should restore to Malcolm all his southern possessions, for which he should pay the same homage he had been accustomed to do to the Conqueror, that he should restore to Malcolm twelve disputed manors, and give him likewise twelve merks of gold yearly, besides restoring to Edgar all his English estates. This treaty was concluded in Lothian, according to the English historians; but at Leeds in Yorkshire, according to the Scots. However William considered the terms as so very dishonorable that he resolved not to fulfil them. Soon after his departure Edgar and Robert began to press him to fulfil his engagements; but, receiving only evasive answers, they passed over into Normandy. After their departure William applied himself

to the fortification of his northern boundaries, especially Carlisle, which had been destroyed by the Danes 200 years before. As this place lay within the feudal dominions of Malcolm, he complained of William's proceedings as a breach of the late treaty; and soon after repaired to the English court at Gloucester that he might have a personal interview with the king, and obtain redress. On his arrival William refused him admittance to his presence without paying him homage. Malcolm offered this in the same manner as had been done by his predecessors, that is, on the confines of the two kingdoms; but, this being rejected by William, Malcolm returned to Scotland in a rage, and again prepared for war. The first of Malcolm's military operations now proved fatal to him; but the circumstances of his death are variously related. According to the Scottish historians, having laid siege to Alnwick, he reduced the place to such straits that a knight came out of the castle, having the keys on the point of a spear, and, pretending that he designed to lay them at Malcolm's feet, ran him through the eye with the spear as soon as he came within reach. Prince Edward, the king's eldest son, was mortally wounded in attempting to revenge his father's death. The English historians, on the other hand, contend that the Scots were surprised in their camp, their army entirely defeated, and their king killed. On this occasion the Scottish historians also inform us that the family of Piercy received its name; the knight who killed the Scottish king having been surnamed Pierce-eye, from the manner in which he gave that monarch the fatal stroke. Queen Margaret, who was at that time lying ill in the castle of Edinburgh, died four days after her husband. On the death of Malcolm Canmore, which happened in the year 1093, the throne was usurped by his brother, Donald Bane, or Donald VII., who, notwithstanding the great virtues and glorious achievements of the late king, had been at the head of a strong party during the whole of his reign. The usurper, giving way to the barbarous prejudices of himself and his countrymen, expelled out of the kingdom all the foreigners whom Malcolm had introduced. Edgar himself had long resided at the English court, where he was in high reputation; and, by his interest there, found means to rescue his nephew young Edgar, the king of Scotland's eldest son, out of the hands of the usurper Donald Bane. The favor he showed to him, however, produced an accusation against himself, as if he designed to adopt young Edgar as his son, and set him up as a pretender to the English throne. This accusation was preferred by an Englishman whose name was Orgar; but, as no legal proofs could be obtained, the custom of the times rendered a single combat between the parties unavoidable. Orgar was one of the strongest and most active men in the kingdom; but the age and infirmities of Edgar allowed him to be defended by another. For a long time none could be found who would enter the lists with this champion; but at last one Godwin of Winchester, whose family had been under obligations to Edgar or his ancestors, offered to defend his cause. Orgar was overcome and killed; and, when dying, confess-

ed the falsehood of his accusation. The conqueror obtained all the lands of his adversary, and William lived ever afterwards on terms of the strictest friendship with Edgar. This combat, trifling as it may seem to us, produced very considerable effects. The party of Edgar and his brothers (who had likewise taken refuge at the English court) revived in Scotland to such a degree that Donald was obliged to call in the Danes and Norwegians to his assistance. In order to engage them more effectually, the usurper yielded up to them the Orkney and Shetland islands; but, when his new allies came to his assistance, they behaved in such a manner as to become more intolerable to the Scots than ever the English had been. This discontent was greatly increased when it was found that William designed to place on the throne of Scotland a natural son of the late Malcolm, named Duncan, who had served with reputation in the English armies. Donald attempted to maintain himself on the throne by the assistance of his Norwegian allies; but, being abandoned by the Scots, he was obliged to fly to the isles, to raise more forces: in the meantime Duncan II. was crowned at Scone with the usual solemnity. The Scots were now greatly distressed by two usurpers who contended for the kingdom. One of them however was soon despatched. Malpedir, thane of Mearns, surprised Duncan in the castle of Montcith, and killed him; after which he replaced Donald VII. on the throne. But the affection of the Scots was by this time entirely alienated from Donald, and a manifest intention of calling in young Edgar prevailed. To prevent this, Donald offered the young prince all that part of Scotland which lay south of the Forth; but the terms were rejected, and the messengers who brought them were put to death as traitors. The king of England also, dreading the neighbourhood of the Norwegians, interposed in young Edgar's favor, and gave Atheling the command of an army to restore him. Donald prepared to oppose his enemies with all the forces he could raise; but, deserted by the Scots, he was obliged to flee; and his enemies pursued him so closely that he was soon taken. Being brought before Edgar, he ordered his eyes to be put out, and condemned him to perpetual banishment, in which he died some time after. The credulous historians of this period tell us that this revolution was owing to St. Cuthbert, who appeared to Edgar, informing him that he should prove victorious, if he received his banner from the hands of the canons; which he accordingly did. During his reign a strict friendship subsisted between the courts of England and Scotland; owing to the marriage of Henry I. of England with the princess Matilda, sister to Edgar. This has given occasion to the English historians to assert, that Edgar held the kingdom of Scotland as a feudatory of Henry. A seal has been forged of Edgar sitting on horseback, with a sword in his right hand, and a shield on his left arm, with a border of France: this last circumstance is a sufficient proof of the forgery. After a reign of nine years, Edgar died at Dundee, in 1107; and was succeeded by his brother Alexander I. surnamed the Fierce, from the impetuosity of his

temper. On his accession to the throne, however, the Scots were so ignorant of his true character, on account of his appearance of piety and devotion, that the northern parts of the kingdom were soon filled with bloodshed, by the wars of the chieftains. Alexander immediately raised an army, and, marching into Moray and Ross-shire, attacked the insurgents separately; and, having subdued them all, put great numbers of them to death. He then set himself to reduce the exorbitant power of the nobles. A remarkable instance of this appeared on his return from this expedition. In passing through the Mearns, he met with a widow who complained that her husband and son had been put to death by the young earl their superior. Alexander immediately alighted from his horse, and swore that he would not remount him till he had enquired into the justice of the complaint; and, finding it to be true, the offender was hanged on the spot. These vigorous proceedings prevented all attempts at rebellion; but produced many conspiracies among the profligate part of his subjects. The most remarkable of these took place while the king was engaged in building the castle of Bal-Edgar, so called in memory of his brother, who had laid the foundation. It was situated in the Carse of Gowrie, which formerly belonged to Donald Bane, but came to the crown, either by donation or forfeiture. The conspirators bribed one of the king's chamberlains to introduce them at night into the royal bed-chamber; but Alexander, alarmed at the noise, drew his sword and killed six of them: after which, by the help of a knight named Alexander Carron, he escaped the danger, by fleeing into Fife. The conspirators chiefly resided in the Mearns, to which Alexander once more repaired, at the head of an army; but the rebels retreated northwards, and crossed the Spey. The king pursued them across that river, defeated them, and brought to justice all that fell into his hands. In this battle Carron distinguished himself so eminently that he obtained the name of Skirmigeour or Scrimzeour, i. e. skirmisher or fighter. The next remarkable transaction of Alexander's reign was his journey into England, where he visited Henry I., whom he found engaged in a war with the Welsh. Henry had planted a colony of Flemings on the borders of the principality, to keep that turbulent people in awe, as well as to introduce into his kingdom the manufactures for which the Flemings were famous. The Welsh, jealous of this colony, invaded England; where they defeated the earl of Chester and Gilbert Strongbow, the two most powerful of the English subjects. Alexander, in virtue of the fealty which he had sworn for the English possessions, readily agreed to lead an army into Wales. There he defeated one of the chieftains, and reduced him to great straits; but could not prevent him from escaping to Griffith, prince of North Wales, with whom he was closely allied. Henry also marched against the enemy, but with much worse success in the field than Alexander; for he lost two-thirds of his army, with almost his whole baggage, by fatigue, famine, and the attacks of the Welsh. This loss, however, he made up in some measure by his policy; for having

raised a jealousy between the two Welsh chiefs, he induced them to conclude a peace, but not without restoring all his lands to the one, and paying a considerable sum of money to the other. Alexander married Sibylla, daughter of William duke of Normandy; but died without issue in 1124, after a reign of seventeen years, and was buried at Dunfermline.

Alexander, dying a bachelor, was succeeded by his youngest brother David; who interfered in the affairs of England, and took part with the empress Maud in the civil war she carried on with Stephen. In 1136 David met his antagonist at Durham; but, as neither party cared to venture an engagement, a negotiation took place, and a treaty was concluded. This, however, was not long observed; for, in 1137, David again invaded England, defeated Stephen at Roxburgh, and forced him to retreat precipitately, after losing one-half of his army. Next year he renewed his invasion; and, though he himself was a man of great mildness and humanity, he suffered his troops to commit such outrages as firmly united the English in opposition to him. His grand nephew William cut in pieces the vanguard of the English army at Clithero; after which he ravaged the country with such cruelty that the inhabitants became exasperated beyond measure against him. New associations were entered into against the Scots; and the English army, receiving great reinforcements from the southward, advanced to Northallerton, where the famous standard was produced. The body of this standard was a kind of box which moved upon wheels, from which arose the mast of a ship surmounted by a silver cross, and round it were hung the banners of St. Peter, St. John de Beverly, and St. Wilfred. Standards of this kind were common at that time on the continent; and so great confidence had the English in this standard that they now thought themselves invincible. They had, however, a much more solid ground of confidence, as being much better armed than their antagonists. The armies met at a place called Culton Moor. The first line of the Scots army was composed of the inhabitants of Galloway, Carric, Kyle, Cunningham, and Renfrew. These, by some historians, are called Picts, and are said to have had a prince of their own, who was a feudatory to David. The second line consisted of Lothian men, by which we are to understand the king's subjects in England as well as the south of Scotland, together with the English and Normans of Maud's party. The third line was formed of the clans under their different chieftains, but who were subject to no regular command, and were always impatient to return to their own country when they had acquired any booty. The English soldiers, having ranged themselves round their standard, dismounted from their horses, to avoid the long lances which the first line of the Scottish army carried. Their front line was intermixed with archers; and a body of cavalry, ready for pursuit, hovered at some distance. The Picts, besides their lances, made use of targets; but, when the English closed with them, they were soon disordered and driven back upon the centre, where David commanded in person. His son made a

gallant resistance, but was at last forced to yield: the last line seems never to have been engaged. David, seeing the victory decided against him, ordered some of his men to save themselves by throwing away their badges, which it seems Maud's party had worn, and mingling with the English; after which he himself, with his shattered forces, retreated towards Carlisle. The English historians say that in this battle the Scots were totally defeated, with the loss of 10,000 men; but this seems not to be the case, as the English did not pursue, and the Scots were in a condition for carrying on the war next year. However, there were now no great exploits performed on either side; and a peace was concluded, by which Henry, prince of Scotland, was put in possession of Huntingdon and Northumberland, and took an oath of fealty to Stephen. David built no fewer than fifteen abbeys: viz. at Holyrood-house, Kelso, Jedburgh, Melrose, Newbottel, Cambuskenneth, Dundrennan, Holm-Cultrane, Kinloss, Dunfermline, Holme in Cumberland, Carlisle, North Berwick, and two at Newcastle; and founded four bishoprics. His son prince Henry died before him, leaving three sons and three daughters. David, called also, from his piety, St. David, continued faithful to his niece the empress as long he lived; and died at Carlisle in 1153, after a glorious reign of above twenty-nine years.

David was succeeded by his grandson Malcolm IV., surnamed the Maiden, on account of his continence. He suppressed several rebellions, banished many of the turbulent Murrays, built the abbeys of St. Andrew's and Cupar in Angus, and died at Jedburgh, in the twelfth year of his reign, A. D. 1165. He was succeeded by his brother William I., surnamed the Lion, who immediately entered into a war with Henry II. of England, on account of the earldom of Northumberland, which had been given up by Malcolm; but Henry, finding his affairs in a very embarrassed situation, consented to yield up this county on William's paying him homage, rather than continue the miseries of war. In 1172 he attempted to avail himself of the unnatural war which Henry's sons carried on against their father, and invaded England. He divided his army into three columns; the first of which laid siege to Carlisle; the second he himself led into Northumberland; and the king's brother, David, advanced with the third into Leicestershire. William reduced the castles of Burgh, Appleby, Warkworth, and Garby, and then joined that division of his army which was besieging Carlisle. The place was already reduced to such straits that the governor had agreed to surrender it by a certain day, provided it was not relieved before that time; on which the king, leaving some troops to continue the siege, invested a castle with some of the forces he had under his command, at the same time sending a strong reinforcement to his brother David; by which means he himself was left with a very small army, when he received intelligence that a strong body of English under Robert de Stuterville and his son were advancing to surprise him. William, sensible of his inability to resist them, retired to Aluwick, to which he instantly laid siege; but

acted in such a careless manner that his enemies, having dressed a party of their soldiers in Scottish habits, took him prisoner, and carried him, with his feet tied under the belly of a horse, to Richmond Castle. He was then carried in chains before Henry to Northampton, and ordered to be transported to the castle of Falaise in Normandy, where he was shut up with other state prisoners. Soon after this an accommodation took place between Henry and his sons, and the prisoners on both sides were set at liberty, William only excepted, who bore his confinement with great impatience. Of this Henry took the advantage, to make him pay homage for the whole kingdom of Scotland, and acknowledge that he held it only as a feu of the crown of England; and, as a security, he was obliged to deliver into the hands of Henry all the principal forts in Scotland: viz. the castles of Roxburgh, Berwick, Jedburgh, Edinburgh and Stirling; William at the same time agreeing to pay the English garrisons which were put into these castles. David, the king's brother, and twenty barons, who were present at the signing of this shameful convention, were put into the hands of Henry as hostages for William's good faith; after which the king was set at liberty, and returned to Scotland. The affairs of Scotland were now in the greatest confusion. The people of Galloway, at the head of whom were two princes, called Othred and Gilbert, had taken the opportunity of asserting their independency on the crown of Scotland; and, having expelled all the Scottish officers out of the country, they demolished the forts which William had erected, and put to death all the foreigners. But, a quarrel ensuing between them, Othred was murdered by Gilbert, who applied to Henry for protection. Henry, to give all possible sanction to the convention betwixt him and William, summoned him to meet him and his son at York. William obeyed the summons, and along with him appeared all the great nobility and landholders; who confirmed the convention of Falaise, swore fealty to Henry, and put themselves and their country under his protection. In the mean time Gilbert, who was at the head of the rebels in Galloway, had offered to put himself and his people under the protection of Henry, and to pay to him 2000 merks of silver yearly, with 500 cows and as many hogs; but Henry, that he might oblige his new feudatory William, refused to have any concern with Gilbert. On this William ordered his general Gilchrist to march against him; which he did with such success that Gilbert was entirely defeated, and Galloway again reduced under the dominion of Scotland. Very soon after this victory Gilchrist fell under the king's displeasure on the following occasion: He had married Matilda, sister to William; and, on suspicion or proof of her incontinence, put her to death at a village called Maynes, near Dundee. The king, being highly displeased at such a gross affront to himself, summoned Gilchrist to take his trial for the murder; but, as the general did not choose to make his appearance, his estates were confiscated, his castles demolished, and himself banished. He took refuge in England; but as it had been agreed in the convention between William and Henry

that the one should not harbour the traitorous subjects of the other, Gilchrist was forced to return to Scotland with his two sons. There they were exposed to all the miseries of indigence, and in perpetual fear of being discovered, so that they were obliged to skulk from place to place. William, on his return from an expedition against a usurper whom he had defeated, observed three strangers, who, though disguised like rustics, appeared to be above the vulgar rank. William was confirmed in this apprehension by seeing them strike out of the high road, and endeavour to avoid notice. He ordered them to be seized and brought before him. The oldest, who was Gilchrist himself, fell upon his knees before him, and gave such a detail of his misfortunes, as drew tears from the eyes of all present; and the king restored him to his former honors and estates. From the family of this Gilchrist that of the Ogilvies is descended. The Scots continued in subjection to the English until the accession of Richard I. This monarch, being a man of romantic valor, zealously undertook an expedition into the Holy Land against the Turks. That he might secure the quiet of his dominions in his absence, he determined to make the king of Scotland his friend; and, for this purpose, he thought nothing could be more acceptable than releasing him and his subjects from that subjection which even the English themselves considered as unjust. However, he determined not to lose this opportunity of supplying himself with a sum of money, which was absolutely necessary in such an expensive and dangerous undertaking. He therefore made William pay him 10,000 merks for this release; after which he entered into a convention, which is still extant, acknowledging that 'all the conventions and acts of submission from William to the crown of England had been extorted from him by unprecedented writings and duresse.' This transaction happened in 1189. The generosity of Richard met with a grateful return from William; for when Richard was imprisoned by the emperor of Germany in his return from the Holy Land, the king of Scotland sent an army to assist his regency against his rebellious brother John, who had wickedly usurped the throne of England. For this Richard owned his obligation in the highest degree; and the two monarchs continued in friendship as long as Richard lived. Some differences happened with king John about the possession of Northumberland and other northern counties; but these were all finally adjusted, to the mutual satisfaction of both parties; and William continued a faithful ally of the English monarch till his death, which happened in 1214, after a reign of forty-nine years.

William was succeeded by his son Alexander II., a youth of sixteen. He revived his claim to Northumberland and the other northern counties of England; but John, supposing that he had now thoroughly subdued the English, not only refused to consider the demands of Alexander, but made preparations for invading Scotland. John had given all the country between Scotland and the river Tees to Hugh de Baliol and another nobleman, upon condition of their defending it against the Scots. Alexander fell upon Nor-

thumberland, which he easily reduced, while John invaded Scotland. Alexander retired to Melrose to defend his own country; upon which John burnt the towns of Wark, Alnwick, and Morpeth, and took the strong castles of Roxburgh and Berwick. He next plundered the abbey of Coldingham, reduced Dunbar and Haddington, ravaging the country as he passed along. His next operation was directed against Edinburgh; but, being opposed by Alexander at the head of an army, he precipitately marched back. Alexander pursued, and John, to cover his retreat, burnt the towns of Berwick and Coldingham. In this retreat John set his men an example of barbarity, by setting fire every morning to the house in which he had lodged the preceding night. In short, such desolation did he spread all around him, that Alexander found it impossible to continue his pursuit; for which reason he marched westward, and invaded England by the way of Carlisle. This town he took and fortified; after which he marched south as far as Richmond, receiving homage from all the great barons as he went along. At Richmond he was again stopped by John's ravages, and obliged to return through Westmoreland to his own dominions. When the English barons found it necessary to put themselves under the protection of Louis, son to the king of France, that prince, among other acts of sovereignty, summoned Alexander to do him homage; but the latter, being then engaged in the siege of Carlisle, which had fallen into the hands of king John, could not attend. In a short time Alexander found himself obliged to abandon this enterprise; after which he laid siege to Barnard castle; but, being baffled here also, marched southwards through the whole kingdom of England, and met Louis at London or Dover, where the prince confirmed to him the rights to Northumberland, Cumberland, and Westmoreland. He continued a faithful ally to Louis and the barons in their wars with John; and in 1216 brought a fresh army to their assistance, when their affairs were almost desperate. This once more turned the scale against John; but, he soon after dying, the English easily became reconciled to the government of Henry III., and the party of Louis dwindled every day, till at last he was obliged to drop all thoughts of being king of England. As long as Louis continued in England, Alexander proved faithful to his interest; but in 1217 he was on such good terms with Henry as to demand his eldest sister, the princess Jane or Joan, for a wife. His request was granted, and in 1221 he espoused the princess, while his eldest sister Margery was married to Hubert de Burgh, justiciary of England, and his second sister to Gilbert earl marshal, the two greatest subjects in England. As long as the queen of Scotland lived, a perfect harmony subsisted between the Scots and English; but in 1239 queen Joan died without children, and Alexander soon after married Mary, the daughter of Egelrand de Courcy, a young and beautiful French lady, by whom he had a son named Alexander, in 1241. From this time a coolness took place between the two courts, and many differences arose; but no hostilities were commenced on either side during the

life of Alexander, who died in 1249, in the thirty-fifth year of his reign.

Immediately after the death of his father, Alexander III. took possession of the throne. He is the first of the Scottish kings of whose coronation we have any particular account. The ceremony was performed by the bishop of St. Andrew's, who girded the king with a military belt, probably as an emblem of his temporal jurisdiction. He then explained in Latin, and afterwards in Gaelic, the laws and oaths relating to the kingdom; and the monarch received them all with great appearance of joy, as he also did the benediction and ceremony of coronation. After the ceremony was performed, a Highlander repeated on his knees before the throne, in Gaelic, the genealogy of Alexander and his ancestors, up to Fergus I., or perhaps Gathelus. In 1250 the king, though only ten years of age, was married to the daughter of Henry, who now thought it a proper opportunity to cause him to do homage for the whole kingdom of Scotland. But Alexander, notwithstanding his youth, replied with great sense and modesty that his business in England was matrimony; that he had come thither under Henry's protection and invitation; and that he was no way prepared to answer such a difficult question. Henry seems to have been encouraged to make this attempt by the distracted state of the Scottish affairs at that time; for, during the minority of the king, the nobility threw every thing into confusion by their dissensions. The Cummins were now become exceedingly powerful; and Alexander II. is blamed by Buchanan for allowing them to obtain such an exorbitant degree of power, by which they were enabled almost to shake the foundations of government. Though the king had refused to do the homage required of him, they imagined that Henry's influence was now too great; and, fearing bad consequences to themselves, they withdrew from York, leaving Henry in full possession of his son-in-law's person. Henry, however, to show that he deserved all the confidence which could be reposed in him, publicly declared, that he dropped all claim of superiority with regard to the crown of Scotland, and that he would ever afterwards act as the father and guardian of his son-in-law; confirming his assurances by a charter. Yet, when Alexander returned to Scotland, he found they had made a strong party against his English connexions. They now exclaimed that Scotland was no better than a province of England; and, having gained almost all the nobility over to this opinion, they kept the king and queen as state prisoners in the castle of Edinburgh. Henry got intelligence of these proceedings; and his queen privately sent a physician whom she could trust, to enquire into her daughter's situation. Having got admittance into the young queen's presence, she gave him a most lamentable account of her situation. She said that the place of their confinement was very unwholesome, in consequence of which their health was in imminent danger; and that they had no concern in the affairs of government. Historians inform us that the Cummins usurped the whole power of the state. Henry did not well know how to act.

If he proceeded at once to violent measures, he was afraid of the lives of his daughter and son-in-law; and, on the other hand, by a more cautious conduct, he left them exposed to the wicked attempts of those who kept them in thralldom, some of whom, he knew, had designs on the crown. By advice of the Scottish royalists, among whom were the earls of Dunbar, Fife, Stratherne, Carrick, and Robert Bruce, Henry assembled his military tenants at York, whence he himself advanced to Newcastle, where he published a manifesto, disclaiming all designs against the peace or independency of Scotland; declaring that the forces which had been collected at York were designed to maintain both; and that all he meant was to have an interview with the king and queen upon the borders. From Newcastle he proceeded to Wark, where he privately despatched the earl of Gloucester, with his favorite John Mansel, and a train of trusty followers, to gain admission into the castle of Edinburgh, which was then held by John Baliol and Robert Ross, noblemen of great influence both in England and Scotland. The earl and Mansel gained admittance into the castle, in disguise, on pretence of their being tenants to Baliol and Ross; and their followers obtained access on the same account, without suspicion, till they were sufficiently numerous to have mastered the garrison, had they met with resistance. The queen immediately informed them of the thralldom and tyranny in which she had been kept; and among other things declared that she was still a virgin, as her jailors obliged her to sleep separate from her husband. The English, being masters of the castle, ordered a bed to be prepared that very night for the king and queen; and Henry, hearing of the success of his party, sent a safe conduct for the royal pair to meet him at Alnwick. Robert Ross was summoned by Henry to answer for his conduct; but, throwing himself at the king's feet, he was punished only by the sequestration of his estate, as was John Baliol, by a heavy fine, which the king of England reserved entirely to his own use. Alexander and his queen were attended to Alnwick by the heads of their party; and when they arrived it was agreed that Henry should act as his son-in-law's guardian; in consequence of which several regulations were made to suppress the exorbitant power of the Cummins. That ambitious family, however, were all this time privately strengthening their party in Scotland, though they outwardly appeared satisfied with the arrangements made. This rendered Alexander secure; so that, being off his guard, he was surprised when asleep in the castle of Kinross, by the earl of Menteith, who carried him to Stirling. The Cummins were joined in this treason by Sir Hugh Abernethy, Sir David Lochore, and Sir Hugh Barclay; and, in the mean time, the whole nation was thrown into the utmost confusion. The great seal was forcibly taken from Robert Stuzeville, substitute to the chancellor the bishop of Dunkeld; the estates of the royalists were plundered; and even the churches were not spared. The king at last was delivered by the death of the earl of Monteith, who is said to have been poisoned by his wife to gratify her passion for a young English gentle-

man named John Russel. The earl died at a juncture very critical for Scotland, and his death disconcerted all the schemes of his party, which never afterwards could make head against the royalists. Alexander, being thus restored to the exercise of regal authority, acted with great wisdom and moderation. He pardoned the Cummins and their adherents, upon their submitting to his authority; after which he applied himself to the regulation of his other affairs; but a storm was now ready to break upon him from another quarter. The usurper Donald Bane, brother to Malcolm Canmore, had engaged to deliver up the isles of Orkney and Shetland to the king of Norway, for assisting him in making good his pretensions to the crown of Scotland. Haquin, the king of Norway, at this time alleged that these engagements extended to the delivering up the islands of Bute, Arran, and others in the Frith of Clyde, as belonging to the Western isles; and, as Alexander would not comply with these demands, Haquin appeared with a fleet of 160 sail, having on board 20,000 troops, who landed and took the castle of Ayr. Alexander immediately despatched ambassadors to treat with Haquin; but the latter, flushed with success, would hearken to no terms. He made himself master of the isles of Bute and Arran; after which he passed over to Cunningham. Alexander divided his army into three bodies: The first was commanded by Alexander, high steward of Scotland (the great grandfather of Robert II.), and consisted of the Argyle, Athol, Lenox, and Galloway men. The second was composed of the inhabitants of Lothian, Fife, Merse, Berwick, and Sterling, under Patrick earl of Dunbar. The king himself led the centre, which consisted of the inhabitants of Perthshire, Angus, Mearns, and the northern counties. Haquin, who was an excellent commander, disposed his men in order of battle, and the engagement began at a place called Largs. Both parties fought with great resolution; but at last the Norwegians were defeated with dreadful slaughter, no fewer than 16,000 of them being killed on the spot. The remainder escaped to their ships; which were so completely wrecked, the day after, that Haquin could scarcely find a vessel to carry him with a few friends to Orkney, where he soon after died of grief. In consequence of this victory, Owen king of the Isle of Man submitted to Alexander; and his example was followed by several other princes of the Norwegians. Haquin's son, Magnus, a wise and learned prince, soon after arrived in Scotland with fresh reinforcements, and proposed a treaty; but Alexander, instead of listening to an accommodation, sent the earls of Buchan and Murray, with Alan the chamberlain, and a considerable body of men to the Western Islands, where they put to the sword some of the inhabitants, and hanged their chiefs for having encouraged the Norwegian invasion. In the mean time Magnus returned to Norway: where a treaty was at last concluded between him and Alexander. By this Magnus renounced all right to the contested islands; Alexander at the same time consenting to pay him 1000 merks of silver in the space of two years, and 100 yearly ever after, as an ac-

knowledge for these islands. To cement the friendship more firmly, a marriage was concluded between Margaret the daughter of Alexander, and Eric the son and heir of Magnus, who was also a child; and, some years after, when the parties were of proper age, the marriage was consummated. From this time to the accession of Edward I. of England, we find nothing remarkable in the history of Scotland. That prince, however, proved a more cruel enemy to this country than it had ever experienced. Alexander was present at the coronation of Edward, who was then newly arrived from the Holy Land, where he had been on a crusade. Soon after this Alexander paid him homage for his English estates; particularly for the lands and lordship of Penrith and others, which Henry had given him along with his daughter. He proved an excellent ally to Edward in his wars against the French; and the latter passed the charter by which he acknowledged that the services of the king of Scotland in those wars were not in consequence of his holding lands in England, but as an ally to his crown. Even at this time, however, Edward had formed a design on the liberties of Scotland; for, in the charter just mentioned, he inserted a salvo, acknowledging the superiority by which he reserved his right to the homage of the king of Scotland, when it should be claimed by him or his heirs. The bishop of Norwich suggested this salvo: and this was the reason why Alexander would not perform the homage in person, but left it to be performed by Robert Bruce earl of Carrick; Alexander standing by, and expressly declaring that it was only paid for the lands he held in England. No acts of hostility, however, took place during the life of Alexander, who was killed on the 19th of March, 1285, in the forty-fifth year of his age, by his horse rushing down the black rock near Kinghorn as he was hunting.

IV. HISTORY OF SCOTLAND TO THE DEATH OF JAMES V.—Both before and after the death of Alexander, the great subjects of Scotland seemed to have been sensible of Edward's ambitious designs. On the marriage of Margaret with Eric prince of Norway, the states of Scotland passed an act obliging themselves to receive her and her heirs as queen and sovereigns of Scotland. Edward at that time was in no condition to oppose this measure, in which the Scots were unanimous; and therefore contented himself with forming factions among the leading men of the country. Under pretence of resuming the cross, he renewed his intrigues at the court of Rome, and demanded leave from the pope to collect the tenths in Scotland; but his holiness replied that he could make no such grant without the consent of the government of Scotland. On the death of Margaret, queen of Norway, her daughter, in consequence of the act above-mentioned, was recognised by the states as queen of Scotland. As she was then but two years old, they came to the resolution of excluding from all share in the government, not only Edward I. but their queen's father; and they accordingly established a regency from among their own number, consisting of the six following noblemen; viz. Robert Wishart bishop of Glasgow,

Sir James Cummin of Badenoch, senior, James lord high steward of Scotland, who were to have the superintendency of all that part of Scotland which lies south of the Forth; William Fraser bishop of St. Andrew's, Duncan M'Duff earl of Fife, and Alexander Cummin earl of Buchan, who were to have the direction of all affairs north of that river. With these arrangements Eric was exceedingly displeased, as considering himself as the only rightful guardian of his own child. He therefore cultivated a good correspondence with Edward, from whom he had received considerable pecuniary favors; and, perceiving that the states of Scotland were unanimous in excluding all foreigners from the management of their concerns, he fell in with the views of the king of England, and named commissioners to treat with those of Edward upon the Scottish affairs. These negotiations terminated in a treaty of marriage between the queen of Scotland and Edward prince of Wales, young as they both were. This alarmed the states of Scotland, who resolved not to suffer their queen to be disposed of without their consent. It was therefore agreed by the commissioners on both sides, to acquaint them with the result of their conference, and to demand that a deputation should be sent up for settling the regency of Scotland, or, in other words, for putting the sovereign power into the hands of the two kings. As the two parties, however, were within the prohibited degrees of consanguinity, being first cousins, a dispensation was applied for to pope Boniface, who granted it on the condition that the peers of Scotland consented to the match. Though the Scottish nobility were very much against this match, they could not refuse their consent to it when proposed by the father and grand-uncle of their young queen. They therefore appointed the bishops of St. Andrew's and Glasgow, with Robert Bruce lord of Annandale, and John Cummin, to attend as their deputies, but with a salvo to all the liberties and honors of the realm of Scotland; to which Edward agreed. These deputies met at Salisbury with those of England and Norway; and it was at last agreed, 1. That the young queen should be sent from Norway (free of all marriage engagements) into England or Scotland. 2. That if the queen came to England she should be at liberty to repair to Scotland as soon as the distractions of that kingdom should be settled; that she should, on her arrival in her own dominions, be free of all matrimonial contracts; but that the Scots should engage not to dispose of her in marriage without her father's or Edward's consent. 3. The Scottish deputies promised to give such security as the Norwegian commissioners should require, that the tranquillity of the nation should be settled before her arrival. 4. That the commissioners of Scotland and Norway, joined with commissioners from England, should remove such regents and officers of state in Scotland as should be suspected of disaffection, and place others in their stead. If the Scottish and Norwegian commissioners should disagree on that or any other head relating to the government of Scotland, the decision was to be left to the arbitration of English commissioners. The party of Edward was

now so strong in Scotland that no opposition was made to the late agreement, in a parliament held at Brechin to deliberate upon the settlement of the kingdom. It is uncertain whether he communicated in form to the Scottish parliament the pope's dispensation for the marriage; but they highly approved of it upon certain conditions to which Edward was previously to agree; but the latter, without waiting to perform any condition, immediately sent for the young queen from Norway. This exceedingly displeased Eric, who was not inclined to put his daughter into the hands of a prince whose sincerity he suspected, and therefore shifted off the departure of the princess till he should hear farther from Scotland. Edward, alarmed at this, had again recourse to negotiation; and ten articles were at last drawn up, in which the Scots took all imaginable precautions for the safety and independency of their country. These articles were ratified by Edward on the 28th of August, 1289; yet, even after the affair of the marriage was fully settled, he lost no time in procuring as strong a party as he could. At the head of these were the bishop of St. Andrew's and John Baliol. That prelate, while he was in England, was highly caressed by Edward, from whom he had great expectations of preferment; and Baliol, having great estates in England, considered the latter as his sovereign. The bishop, on his return to Scotland, acted as a spy for Edward, and carried on with him a secret correspondence, informing him of all public transactions. It appears from this correspondence that the Scots were far from being unanimous as to the marriage. Bruce earl of Annandale suspected that the young queen was dead; and, soon after Michaelmas 1290, assembled a body of forces, and was joined by the earl of Mar and Athol. Intelligence of these commotions was carried to Edward by Baliol; and the bishop of St. Andrew's advised Edward, in case the report of the queen's death should prove true, to march a body of troops towards Scotland, to secure such a successor as he thought proper. Edward, in the mean time, consented to allow ambassadors to be sent from Scotland to bring over the young queen; previous to which he appointed the bishop of Durham to be lieutenant in Scotland for the queen and her future husband; and all the officers there, both civil and military, obliged themselves to surrender their employments and fortresses to the king and queen (that is, to Edward) immediately on their arrival in Scotland. But, while the most magnificent preparations were making for the reception of the young queen, certain intelligence of her death was received.

The Scots were thrown into the utmost consternation by the news of their queen's death; while Edward was as well prepared as if he had known what was to happen. The state of Scotland at this time indeed was to the last degree deplorable. The act of succession established by the late king had no farther operation, being determined by the death of the queen; and, since the crown was rendered hereditary, there was no precedent by which it could be settled. The Scots, in general, however, turned their eyes

upon the posterity of David earl of Huntingdon, brother to the two kings, Malcolm IV. and William I., both of whom died without lawful issue. The earl had three daughters; Margaret, the eldest, was married to Alan lord of Galloway; the only issue of which marriage was Dervegil, wife to John Baliol, who had a son John, a competitor for the crown. The second daughter, Isabella, was married to Robert Bruce; and their son Robert was a candidate likewise. The third daughter, Ada, had been married to Henry Hastings, an English nobleman. John Hastings, the son of this marriage, was a third competitor; but, as his claim was confessedly the worst of the three, he only put in for a third of the kingdom, on the principle that his mother was joint-heir with her two sisters. Several other claimants now started up. Florence earl of Holland pretended to the crown, in right of his great-grandmother Ada, the eldest lawful sister of king William; as did Robert de Pynkeny, in the right also of his great-grandmother Marjory, second sister of king William. Six other claimants appeared, very absurdly founding upon their descent from bastards of king William and Alexander II. and III. John Cummin lord of Badenoch derived his claim from a more remote source, viz. Donald Bane, who usurped the crown about 200 years before this time; but he was willing to resign in favor of John Baliol. The latter indeed had surely the best right; and, had the succession been regulated as it now is in all hereditary kingdoms, he would undoubtedly have carried it. Bruce and Hastings, however, pleaded that they were preferable, not only to John Baliol the grandchild of Margaret, but also to Dervegil her daughter and his mother, for the following reason: Dervegil and they were equally related to their grandfather earl David: she was indeed the daughter of his eldest daughter; but she was a woman, they were men; and the male in the same degree ought to succeed to sovereignties, in their own nature impartible, preferably to the female. Notwithstanding this number of candidates, however, it was soon perceived that the claims of all of them might be cut off, excepting two, viz. Baliol and Bruce, of whom the former had the preference with respect to hereditary right, and the latter as to popularity. Baliol had strongly attached himself to Edward's party; which, being by far the most powerful in Scotland, gave him a decided superiority over Bruce. The event was that Edward, by his own party most probably, was appointed to decide between the two competitors. It soon appeared, however, that Edward had no mind to adjudge the crown to any person but himself; for, in an assembly held at Norham on the 10th of May 1291, Brabancon the chief justice of England informed the members: 'That his master was come thither in consideration of the state of the realm of Scotland, which was then without a king, to meet them, as direct sovereign of that kingdom, to do justice to the claimants of his crown, and to establish a solid tranquillity among his people; that it was not his intention to retard justice, nor to usurp the right of any body, or to infringe the liberties of the kingdom of Scotland, but to render to every

one his due. And, to the end this might be done with the more ease, he required the assent of the states *ex abundante*, and that they should own him as direct sovereign of the kingdom; offering, upon that condition, to make use of their counsels to do what justice demanded.' The deputies were astonished at this declaration, and replied that they were by no means prepared to decide on Edward's claim of superiority; but that Edward ought previously to judge the cause between the two competitors, and require homage from him whom he should choose to be king. Edward gave them till next day to consider of his demand. Accordingly, on that day, the assembly was held in Norham church, where the deputies from Scotland insisted upon giving no answer to Edward's demands, which could be decided only by the whole community; representing that numbers of the noblemen and prelates were absent, and that they must have time to know their sense of the affair. On this Edward gave them three weeks; which interval he employed in multiplying claimants to the crown, and in flattering each with hopes, if he would acknowledge his superiority. But when the assembly met, according to appointment, on the 2d of June, they found the place of meeting surrounded by a numerous army of English. Edward had employed the bishop of Durham to draw up the historical evidence of his right to the crown of Scotland; which has since been published. In this paper mention is made of the fealty and homage performed by the kings of Scotland to the Anglo-Saxon kings of England; but no evidence is brought of any such homage being performed. As to the homage performed by the kings of Scotland, from the time of William the Conqueror to that of the dispute between Bruce and Baliol, the Scots never denied it; but they contended with justice that it was performed for the lands held of the crown of England; and that it was as far from any relation to a fealty performed for the crown of Scotland, as the homage paid by the English monarchs to the crown of France was from all relations to the crown of England. With regard to the homage paid by William to Henry II., it was not denied that he performed it for the whole kingdom of Scotland: but they pleaded that it was void, because it was extorted when William was a prisoner; and they produced Richard I.'s charters, which pronounced it compulsive and iniquitous. But Edward was by no means disposed to examine into the merits of these arguments. Instead of this, he closeted the several pretenders to the crown; and, having found them all ready to comply with his measures, he drew up the following charter of recognition to be signed by them all: 'To all who shall hear this present letter: We Florence earl of Holland, Robert de Bruce lord of Annandale, John Baliol lord of Galloway, John Hastings lord of Abergavenny, John Cummin lord of Badenoch, Patrick de Dunbar earl of March, John Vesci for his father Nicholas Soulis, and William de Ross, greeting in the Lord: Whereas we intend to pursue our right to the kingdom of Scotland; and to declare, challenge, and aver the same before him that has most

power, jurisdiction, and reason to try it; and the noble prince Edward, by the grace of God king of England, &c., having informed us, by good and sufficient reasons, that to him belongs the sovereign seigniory of the same: We therefore promise that we will hold firm and stable his act; and that he shall enjoy the realm to whom it shall be adjudged before him. In witness whereof, we have set our seals to this writing, made and granted at Norham, the Tuesday after the Ascension, in the year of Grace 1291.' Edward then declared, by the mouth of his chancellor, that although, in the dispute which was arisen between the several claimants, touching the succession to the kingdom of Scotland, he acted in quality of sovereign, in order to render justice to whomsoever it was due; yet he did not thereby mean to exclude himself from that hereditary right which in his own person he might have to that crown, and which right he intended to assert and improve when he should think fit: and the king himself repeated this protestation with his own mouth in French. The candidates were then severally called upon by the English chancellor to know whether they were willing to acknowledge Edward's claim of superiority over the crown of Scotland, and to submit to his award in disposing of the same; which being answered in the affirmative, they were then admitted to prove their rights. But this was mere matter of form; for all the force of England was then assembled on the borders to support the claims of Edward, and nothing now remained but to furnish him with a sufficient pretence for making use of it. Observing that the Scots were not so unanimous as they ought to be in recognising his superiority, and that the submission, which the candidates had signed, was not sufficient to carry it into execution, Edward demanded that all the forts in Scotland should be put into his possession, that he might resign them to the successful candidate. Though nothing could be more shameful than a tame compliance with this last demand of Edward, the regency of Scotland without hesitation yielded to it also. Gilbert de Umfraville alone, who had the command of the castles of Dundee and Forfar, refused to deliver them up, until he should be indemnified by the states, and by Edward himself, from all penalties of treason which he might be in danger of incurring. But, though Edward had thus got into his hands the whole power of the nation, he did not think proper to determine every thing by his own authority. Instead of this, he appointed commissioners, and promised to grant letters patent declaring that sentence should be passed in Scotland. It had been all along foreseen that the great dispute would be between Bruce and Baliol; and, though the plea of Cummin was judged frivolous, yet he was a man of too much influence to be neglected, and he agreed tacitly to resign it in favor of Baliol. Edward accordingly made him the compliment of joining him with Baliol in nominating forty commissioners. Bruce was to name forty more; and the names of the eighty were to be given in to Edward in three days; after which the king was to add to them twenty-four of his own

choosing. The place and time of meeting were left in their own option. They unanimously pitched upon Berwick for the place of meeting; but, as they could not agree about the time, Edward appointed the 2d of August following. Soon after this the regents resigned their commissions to Edward; but he returned them, with powers to act in his name; and nominated the bishop of Caithness to be chancellor of Scotland; joining in the commission with him Walter de Hemondesham an Englishman, and one of his own secretaries. Still, however, he met with great difficulties. Many of his own nobles, particularly the earl of Gloucester, were by no means fond of increasing the power of the English monarch by the acquisition of Scotland; and therefore threw such obstacles in his way that he was again obliged to have recourse to negotiation and intrigue, and at last to delay the meeting until the 2d of June in 1292; but during this interval, that he might the better reconcile the Scots to the loss of their liberty, he proposed a union of the two kingdoms; and for this he issued a writ by virtue of his superiority. The commissioners having met on the 2d of June, 1292, ambassadors from Norway presented themselves in the assembly, demanding that their master should be admitted into the number of their claimants, as father and next heir to the late queen. This demand too was admitted by Edward, after the ambassadors had acknowledged his superiority over Scotland; after which he proposed that the claims of Bruce and Baliol should be previously examined, but without prejudice to those of the other competitors. This being agreed to, he ordered the commissioners to examine by what laws they ought to proceed. The discussion of this question was attended with such difficulty, and the opinions on it were so various, that Edward once more adjourned the assembly to the 12th of October following; when the commissioners urged that Edward ought to give justice conformable to the usage of the two kingdoms; but that, if no certain laws or precedents could be found, he might, by the advice of his great men, enact a new law. The succession to the kingdom, they said, might be awarded in the same manner as to other estates and great baronies. Upon this, Edward ordered Bruce and Baliol to be called before him, and both of them urged their respective pleas, and answers, to the following purpose: Bruce pleaded, 1. That Alexander II., despairing of heirs of his own body, had declared that he held him to be the true heir, and offered to prove by the testimony of persons still alive that he declared this with the advice and in the presence of the good men of his kingdom. Alexander III. also had declared to those with whom he was intimate, that, failing issue of his own body, Bruce was his right heir. The people of Scotland had also taken an oath for maintaining the succession of the nearest in blood to Alexander III., who ought of right to inherit, failing Margaret the maiden of Norway and her issue.—Baliol answered that nothing could be concluded from the acknowledgment of Alexander II.; for that he left heirs of his body; but made no answer to what was said of the sentiments of Alexander III., and of the oath made by the Scottish nation to maintain the suc-

cession. 2. Bruce pleaded that the right of reigning ought to be decided according to the natural law, by which kings reign; and not according to any law or usage in force between subject and subject: that, by the law of nature, the nearest collateral in blood has a right to the crown; but that the constitutions which prevail among vassals bind not the lord, much less the sovereign: that although in private inheritances, which are divisible, the eldest female heir has a certain prerogative, it is not so in a kingdom that is indivisible; there the nearest heir of blood is preferable whenever the succession opens.—To this Baliol replied that the claimants were in the court of their lord paramount; and that he ought to give judgment in this case, as in the case of any other tenements, depending on his crown, that is, by the common law and usage of his kingdom, and no other. That, by the laws and usages of England, the eldest female heir is preferred in the succession to all inheritances, indivisible as well as divisible. 3. It was urged by Bruce that the manner of succession to the kingdom of Scotland in former times made for his claim; for that the brother, as being nearest in degree, was wont to be preferred to the son of the deceased king. Thus, when Kenneth Macalpin died, his brother Donald was preferred to his son Constantine, and this was confirmed by several other authentic instances in the history of Scotland.—Baliol answered that, if the brother was preferred to the son of the king, the example proved against Bruce; for that the son, not the brother, was the nearest in degree. He admitted that after the death of Malcolm III. his brother usurped the throne: but he contended that the son of Malcolm complained to his liege lord the king of England, who dispossessed the usurper, and placed the son of Malcolm on the throne; that after the death of that son the brother of Malcolm III. again usurped the throne; but the king of England again dispossessed him, and raised Edgar, the second son of Malcolm, to the sovereignty. 4. Bruce pleaded the example of other countries, particularly Spain and Savoy, where the son of the second daughter excluded the grandson of the eldest daughter.—Baliol answered that examples from foreign countries were of no importance; for that according to the laws of England and Scotland, where kings reign by succession in the direct line, and earls and barons succeed in like manner, the issue of the younger sister, although nearer in degree, excludes not the issue of the eldest sister, although more remote; but the succession continues in the direct line. 5. Bruce pleaded that a female ought not to reign, as being incapable of governing: that at the death of Alexander III. the mother of Baliol was alive; and, as she could not reign, the kingdom devolved upon him, as being the nearest male heir of the blood royal. But to this Baliol replied that Bruce's argument was inconsistent with his claim: for that, if a female ought not to reign, Isabella the mother of Bruce ought not, nor must Bruce himself claim through her. Besides Bruce himself had sworn fealty to a female, the maiden of Norway. The arguments being thus stated on both sides, Edward demanded an answer from the council as to the

merits of the competitors. He also put the following question to them: by the laws and usages of both kingdoms, does the issue of the eldest sister, though more remote in one degree, exclude the issue of the second sister, though nearer in one degree? or ought the nearer in one degree, issuing from the second sister, to exclude the more remote in one degree issuing from the eldest sister? To this it was answered unanimously, that by the laws and usages of both kingdoms, in every heritable succession, the more remote in one degree, lineally descended from the eldest sister, was preferable to the nearer in degree issuing from the second sister. In consequence of this Bruce was excluded from the succession; upon which he entered a claim for one-third of the kingdom: but being baffled in this also, the kingdom of Scotland being determined an indivisible fee, Edward ordered John Baliol to have seisin of Scotland; with this caveat, however, 'That this judgment should not impair his claim to the property of Scotland.'

After so many disgraceful and humiliating concessions on the part of the Scots, John Baliol was crowned king at Scone, on the 30th of November, 1292; and finished the ceremony by doing homage to the king of England. All his submissions, however, could not satisfy Edward, as long as the least shadow of independence remained to Scotland. A citizen of Berwick appealed from a sentence of the Scottish judges appointed by Edward, in order to carry his cause into England. But this was opposed by Baliol, who pleaded a promise made by the English monarch, that he should 'observe the laws and usages of Scotland, and not withdraw any causes from Scotland into his English courts.' Edward replied, that it belonged to him to hear the complaints made against his own ministers; and concluded with asserting his right, not only to try Scottish causes in England, but to summon the king of Scotland, if necessary, to appear before him in person. Baliol had not spirit to resist; and therefore signed a most disgraceful instrument, by which he declared that all the obligations which Edward had come under were already fulfilled, and therefore that he discharged them all. Edward now thought proper to give Baliol some marks of his favor, the most remarkable of which was the sovereignty of the Isle of Man; but it soon appeared that he intended to exercise his own rights in the most provoking manner. Malcolm earl of Fife had two sons, Colban his heir, and another who is constantly mentioned in history by the family name of Macduff.—It is said that Malcolm put Macduff in possession of the lands of Reres and Crey. Malcolm died in 1266; Colban his son in 1270; Duncan the son of Colban in 1288. To this last earl, his son Duncan, an infant, succeeded. During the nonage of this Duncan, grand-nephew of Macduff, William, bishop of St. Andrew's, guardian of the earldom, dispossessed Macduff. He complained to Edward; who, having ordered his cause to be tried, restored him again to possession. Matters were in this state when Baliol held his first parliament at Scone, on the 10th of February, 1292,

when Macduff was cited to answer for having taken possession of the land of Reres and Crey. As his defences did not satisfy the court, he was condemned to imprisonment; but an action was reserved to him against Duncan, when he should come of age, and against his heirs. In all his defence, it is surprising that Macduff should have omitted his strongest argument, viz. that the regents, by Edward's authority, had put him in possession, and that Baliol had ratified all things under Edward's authority. However, as soon as he was set at liberty, he petitioned Baliol for a rehearing; but, this being refused, he appealed to Edward, who ordered Baliol to appear before him in person on the 25th of March, 1293: and, as Baliol did not obey this order, he summoned him again to appear on the 14th of October. In the mean time the English parliament drew up certain standing orders in cases of appeal from the king of Scots. One of these regulations provided, 'that no excuse of absence should ever be received either from the appellant, or the king of Scotland respondent; but that the parties might have counsel if they demanded it.' Though Baliol had not the courage to withstand the second summons of Edward, he behaved with considerable resolution at the trial. The cause of Macduff being come on, Edward asked Baliol what he had to offer in his own defence; to which he replied, 'I am king of Scotland. To the complaint of Macduff, or to ought else respecting my kingdom, I dare not make answer without advice of my people.'—Edward affected surprise at this refusal, after the submissions which Baliol had already made him; but the latter steadily replied, 'In matters respecting my kingdom, I neither dare nor can answer in this place, without the advice of my people.' Edward then desired him to ask a farther adjournment, that he might advise with the nation. But Baliol, perceiving that his doing so would imply an acquiescence in Edward's right of requiring his personal attendance on the English courts, made answer, 'That he would neither ask a longer day, nor consent to an adjournment.'—It was then resolved by the parliament of England that the king of Scotland had offered no defence; that he had made evasive and disrespectful answers; and that he was guilty of manifest contempt of the court. To make recompense to Macduff for his imprisonment, he was ordered damages from the king of Scots, and it was also determined that Edward should enquire, according to the usages of the country, whether Macduff recovered the tenements in question by the judgment of the king's court, and whether he was dispossessed by the king of Scots. The three principal castles of Scotland, with the towns wherein they were situated, and the royal jurisdiction thereof, were further ordered to be taken into the custody of the king, and there remain until the king of Scots should make satisfaction for his contempt and disobedience. Before this judgment was publicly intimated, Baliol is said to have addressed Edward in the following words:—'My lord, I am your liege-man for the kingdom of Scotland; that whereof you have lately treated respects my people no less than myself: I therefore pray you

to delay it until I have consulted my people, lest I be surprised through want of advice: they who are now with me neither will nor dare advise me in absence of the rest of my kingdom. After I have advised with them, I will in your first parliament after Easter report the result, and do to you what I ought.' In consequence of this address, Edward, with consent of Macduff, stopped all proceedings till the day after the feast of Trinity, 1294. But before this term Edward was compelled to suspend all his proceedings by a war which broke out with France. In a parliament held this year by Edward the king of Scotland appeared, and consented to yield up the whole revenues of his English estates for three years to assist Edward against his enemy. He was also requested and ordered by Edward to extend an embargo laid upon the English vessels all over Scotland; this embargo to endure until the king of England's further pleasure should be known. He also requested him to send some troops for an expedition into Gascony, and required the presence and aid of several of the Scottish barons. The Scots, however, eluded these demands of Edward, by pretending that they could not bring any considerable force into the field: and, unable to bear his tyranny any longer, negotiated an alliance with Philip of France. Having assembled a parliament at Scone, they prevailed upon Baliol to dismiss all the Englishmen whom he maintained. They then appointed a committee of twelve, four bishops, four earls, and four barons, by whose advice every thing was to be regulated; and, if we may credit the English historians, watched the conduct of Baliol himself, and detained him in a kind of honorable captivity. However, they could not prevent him from delivering up the castles of Berwick, Roxburgh, and Jedburgh, to the bishop of Carlisle; in whose custody they were to remain during the war between England and France. Notwithstanding this, Baliol concluded the alliance with Philip; by which it was stipulated that the latter should give in marriage the eldest daughter of the count of Anjou to Baliol's son; it was also provided that Baliol should not marry again without the consent of Philip. The king of Scotland engaged to assist Philip in his wars at his own expense, and with his whole power, especially if Edward invaded France; and Philip on his part engaged to assist Scotland, in case of an English invasion. Elated with the hopes of assistance from France, the Scots now invaded Cumberland with a large army, and laid siege to Carlisle. The men abandoned the place; but the women mounted the walls, and drove the assailants from the attack. Another incursion into Northumberland proved almost as disgraceful. Their whole exploits consisted in burning a nunnery at Lamely, and a monastery at Corebridge, though dedicated to their patron St. Andrew; but, having attempted to storm the castle of Harbottle, they were repulsed with loss. In the mean time Edward with an army equal in number to that of the Scots, but much superior on account of its discipline, invaded the east coast of Scotland. Berwick had either not been delivered according to promise, or had been re-

sumed by the Scots, and was now defended by a numerous garrison. Edward assaulted it by sea and land. The ships which began the attack were all either burnt or disabled; but Edward, having led on his army in person, took the place by storm, and cruelly butchered the inhabitants, to the number of 8000, without distinction of sex or age. In this town there was a building called the Red-hall, which certain Flemings possessed by the tenure of defending it at all times against the king of England. Thirty of these maintained their ground for a whole day against the English army; but at night, the building being set on fire, all of them perished in the flames. The same day the castle capitulated; the garrison, consisting of 2000 men, marched out with all the honors of war, after having sworn never to bear arms against England. In the mean time, Baliol, by the advice of his parliament, solemnly and openly renounced his allegiance to Edward, sending the following declaration:—'To the magnificent prince, Edward, by the grace of God king of England, John, by the same grace, king of Scotland. Whereas you, and others of your kingdom, you not being ignorant, or having cause of ignorance, by your violent power, have notoriously and frequently done grievous and intolerable injuries, contempts, grievances, and strange damages against us, the liberties of our kingdom, and against God and justice; citing us, at your pleasure, upon every slight suggestion, out of our kingdom: unduly vexing us; seizing our castles, lands, and possessions, in your kingdom; unjustly, and for no fault of ours, taking the goods of our subjects, as well by sea as land, and carrying them into your kingdom; killing our merchants, and others of our kingdom; carrying our subjects and imprisoning them: for the reformation of which things, we sent our messengers to you, which remain not only unredressed, but there is every day an addition of worse things to them; for now you are come with a great army upon the borders, for the disinheriting us and the inhabitants of our kingdom; and, proceeding, have inhumanly committed slaughter, burnings, and violent invasions, as well by sea as land: we not being able to sustain the said injuries, grievances, and damages any longer, nor to remain in your fealty or homage, extorted by your violent oppression, we restore them to you, for ourself and all the inhabitants of our kingdom, as well for the lands we hold of you in your kingdom as for your pretended government over us.' Edward was presented with this renunciation by the hands of the intrepid Henry, abbot of Aberbrothwick; and, as it was favorable to his political views, he received it rather with contempt than anger. 'The foolish traitor,' said he to the abbot, 'since he will not come to us, we will go to him.' The abbot had been persuaded by his enemies, of whom he had many in Scotland, to present this letter, in hopes that Edward would have put him to death; but he had address enough to escape safe out of his hands, without receiving any other answer. Though this scheme of renunciation had been concerted some time before, declaration was not sent to Edward till after the taking of Berwick.

The fate of Scotland, however, after it, was soon decided. The earl of March had taken part with Edward, but the countess betrayed his castle of Dunbar into the hands of the Scots. Edward sent a chosen body of troops to recover the place. The whole force of Scotland opposed them on the heights above Dunbar; but leaving their advantageous post, and pouring down on their enemies in confusion, they were dispersed and defeated. The castle of Dunbar surrendered at discretion; that of Roxburgh followed the same example; the castle of Edinburgh surrendered after a short siege; and Stirling was abandoned. The Scots, in the mean time, were guilty of the greatest extravagancies. During a short interval between the loss of Berwick and the defeat at Dunbar, an order was made for expelling all the English ecclesiastics who held benefices in England; all the partizans of England, and all neutrals, were declared traitors, and their estates confiscated. But the great successes of Edward soon put an end to these impotent acts of fury. Baliol was obliged to implore the mercy of the conqueror. Divested of his royal ornaments, and bearing a white rod in his hand, he performed a most humiliating penance; confessing that by evil and false counsel, and through his own simplicity, he had grievously offended his liege lord. He recapitulated his various transgressions, in concluding an alliance with France, while at enmity with England; in contracting his son with the niece of the French king; in renouncing his fealty; in attacking the English territories, and in resisting Edward. He acknowledged the justice of the English invasion and conquest; and therefore he, of his own free consent, resigned Scotland, its people, and their homage to his liege lord Edward, 2nd of July 1296.

Edward pursued his conquests, the barons every where crowding in to swear fealty to him, and renounce their allegiance with France. His journey ended at Elgin, whence he returned southward; and, as an evidence of his having made an absolute conquest of Scotland, he carried off from Scone the wooden chair in which the kings were wont to be crowned. Some of the charters belonging to the abbey were carried off, and the seals torn from others. On the 28th of August, 1296, Edward held a parliament at Berwick, where he received the fealty of the clergy and laity of Scotland. Among those who professed their allegiance at this parliament was Robert Bruce the younger, earl of Carrick. After this Edward took the most effectual methods of securing his new conquest. He ordered the estates of the clergy to be restored; and, having received the fealty of the widows of many of the Scottish barons, he put them in possession of their jointure lands, and even made a decent provision for the wives of many of his prisoners. Yet, though in every thing he behaved with great moderation towards the Scots, he committed the government of certain districts, and of the chief castles in the south of Scotland, to his English subjects, of whose fidelity and vigilance he thought himself assured. To conciliate the affections of the clergy, he granted to the Scottish bishops for ever the pri-

vilage of bequeathing their effects by will, in the same manner as that privilege was enjoyed by the archbishops and bishops of England. In honor of the 'glorious Confessor St Cuthbert,' he gave to the monks of Durham an annual pension of £40, payable out of the revenues of Scotland. At last, having settled every thing, as he thought, in tranquillity, he departed for England with all the exultation of a conqueror. The tranquillity established by Edward, however, was of short duration. The government of Scotland at that time required many qualities which his vicegerents possessed not. Warrene, earl of Surrey, who had been appointed governor, took up his abode in England, on pretence of recovering his health. Cressingham, the treasurer, was a voluptuous, proud, and selfish ecclesiastic; while Ormesby, the justiciary, was hated for his severity. Under these officers the administration of Edward became more and more feeble; bands of robbers infested the highways, and the English government was universally despised. At this critical moment arose Sir William Wallace, the hero of the Scottish poets, by whom, indeed, his real exploits are so much obscured that it is difficult to give an authentic relation of them. He was the younger son of Wallace of Ellerslie, in the neighbourhood of Paisley. Having been outlawed for some offence (supposed to have been the killing of an Englishman), he associated with a few companions of fortunes equally desperate. Wallace himself was endowed with great strength and courage, and an active and ambitious spirit; by his affability, eloquence, and wisdom, he maintained an authority over the rude and undisciplined multitudes who flocked to his standard. In May 1297 he began to infest the English quarters; and, being successful in his predatory incursions, his party became more numerous, and he was joined by Sir William Douglas. With their united forces these two allies attempted to surprise Ormesby the justiciary, while he held his court at Scone; but he saved himself by a precipitate flight. After this the Scots roved over the whole country, assaulted castles and massacred the English. Their party was joined by many persons of rank; among whom were Robert Wishart bishop of Glasgow, the Steward of Scotland, and his brother Alexander de Lindsay, Sir Richard Lundin, and Sir Andrew Moray of Bothwell. Young Bruce would have been a vast accession to the party; for he possessed all Carrick and Annandale, so that his territories reached from the frith of Clyde to Solway; but the wardens of the western marches of England suspected his fidelity, and summoned him to Carlisle. He obeyed, and made oath on the consecrated host, and on the sword of Becket, to be faithful and vigilant in the cause of Edward; to prove his sincerity he invaded the estate of Sir William Douglas, and carried off his wife and children. However, he instantly repented of what he had done: 'I trust,' said he, 'that the pope will absolve me from an extorted oath;' on which he abandoned Edward, and joined the Scottish army. All this time Edward was in France, not in the least suspecting an insurrection among people whom he imagined he had thoroughly

subdued. As soon as he received the intelligence he ordered the earl of Surrey to suppress the rebels; but he, declining the command on account of his health, resigned it to his nephew, lord Henry Percy. A great army, some say no fewer than 40,000 men, was now assembled, with which Percy marched against the Scots. He found them encamped at Irvine, with a lake in their front, and their flanks secured by entrenchments, so that they could not be attacked without the utmost danger. The Scots, however, ruined every thing by their dissensions. Wallace was envied on account of his many accomplishments, and his companions began to suggest that an opposition to the English could only be productive of farther national destruction. Sir Richard Lundin, an officer of great rank, openly formed a hostile party, and went over to Edward with all his followers. He attempted to justify his treachery, by saying, 'I will remain no longer of a party that is at variance with itself.' Other leaders entered into a negociation with the English. Bruce, the steward, and his brother Alexander de Lindsay, and Sir William Douglas, acknowledged their offences, and made submissions to Edward. This scandalous treaty seems to have been negotiated by the bishop of Glasgow, and their recantation is recorded in the following words:—'Be it known to all men: whereas we, with the commons of our country, did rise in arms against our lord Edward, and against his peace, in his territories of Scotland and Galloway, did burn, slay, and commit divers robberies; we, therefore, in our own name, and in the name of all our adherents, agree to make every reparation and atonement that shall be required by our sovereign lord; reserving always what is contained in a writing which we have procured from Sir Henry Percy and Sir Robert Clifford, commanders of the English forces; at Irvine, 9th of July, 1297.' To this instrument was subjoined 'Escribe a Sire Willaume;' the meaning of which Lord Hailes supposes to be, that the barons had notified to Sir William Wallace their having made terms of accommodation for themselves and their party. Edward accepted the submission of the Scottish barons who had been in arms, and granted liberty to those whom he had made prisoners in the course of the former year, on condition that they should serve him in his wars against France. The inconstancy of Bruce, however, was so great that acknowledgments of submission or oaths of fealty were not thought sufficiently binding on him; for which reason the bishop of Glasgow, the steward, and Alexander de Lindsay, became sureties for his loyalty and good behaviour, until he should deliver his daughter Marjory as an hostage. Wallace alone refused to be concerned in these shameful submissions; and, with a few resolute followers, resolved to submit to every calamity rather than give up the liberty of his country. The barons had undertaken to procure his submission as well as their own; but, finding that to be impossible, the bishop of Glasgow and Sir William Douglass voluntarily surrendered themselves prisoners to the English. Edward, however, ascribed this surrender, not to any honorable motive but to treachery. He asserted

that Wishart repaired to the castle of Roxburgh under pretence of yielding himself up, but with the concealed purpose of forming a conspiracy to betray that castle to the Scots; and, in proof of this, appealed to intercepted letters. On the other hand, Wallace, ascribing the bishop's conduct to traitorous pusillanimity, plundered his house, and carried off his family captives. Immediately after the defection of the barons at Irvine, Wallace, with his band of determined followers, attacked the rear of the English army, and plundered their baggage; but was obliged to retire, with the loss of 1000 men. He then found himself deserted by almost all the men of eminence and property. His army, however, increased considerably by the accession of numbers of inferior rank, and he again began to act on the offensive. While he employed himself in besieging the castle of Dundee, he was informed that the English army approached Stirling. Wallace, having charged the citizens of Dundee, under the pain of death, to continue the blockade of the castle, hastened with all his troops to guard the important passage of the Forth; and encamped behind a rising ground in the neighbourhood of the abbey of Cambuskenneth. Brian Fitz Allan had been appointed governor of Scotland by Edward; but Warrene, who waited the arrival of his successor, remained with the army. Imagining that Wallace might be induced by fair means to lay down his arms, he despatched two friars to the Scottish camp, with terms of capitulation, 'Return,' said Wallace, 'and tell your masters, that we came not here to treat, but to assert our right, and to set Scotland free. Let them advance, they will find us prepared.' The English, provoked at this answer, demanded impatiently to be led on to battle. Sir Richard Lundin remonstrated against the absurdity of making a numerous army pass by a long narrow bridge in presence of the enemy. He told them that the Scots would attack them before they could form on the plain to the north of the bridge, and thus certainly defeat them; at the same time he offered to show them a ford, which, having crossed with 500 horse and a chosen detachment of infantry, he proposed to come round upon the rear of the enemy, and by this diversion facilitate the operations of the main body. But, this proposal being rejected, the English army began to pass over; which was no sooner perceived by Wallace, than he rushed down upon them, and broke them in a moment. Cressingham the treasurer was killed, and many thousands were slain on the field, or drowned in their flight. The loss of the Scots would have been inconsiderable, had it not been for that of Sir Andrew Moray, the intimate friend and companion of Wallace, who was mortally wounded in the engagement. The Scots are said to have treated the dead body of Cressingham with the utmost indignity.

The victory at Stirling was followed by the surrender of Dundee castle and other places of strength in Scotland; and at the same time the Scots took possession of Berwick, which the English had evacuated. But as a famine now took place in Scotland by the bad seasons and miseries of war, Wallace marched with his whole

army into England, that he might in some measure relieve the necessities of his countrymen by plundering the enemy. This expedition lasted three weeks, during which time the whole country from Cocker mouth and Carlisle to the gates of Newcastle was laid waste, with all the fury of revenge and rapacity; though Wallace endeavoured, as far as possible, to repress the licentiousness of his soldiers. In 1298 Wallace assumed the title of 'Governor of Scotland,' in name of king John, and by consent of the Scottish nation; but in what manner this office was obtained is now in a great measure unknown. In a parliament which he convoked at Perth he was confirmed in his authority; and under this title he conferred the constabulary of Dundee on Alexander Scrimgeour and his heirs, on account of his faithful aid in bearing the royal standard of Scotland. This grant is said to have been made with the consent and approbation of the Scottish nobility, 29th March 1298. From this period, however, we may date the very great jealousy which took place between Wallace and the nobles of his party. His elevation wounded their pride; his great services reproached their inactivity in the public cause; and thus the counsels of Scotland were perplexed with distrust and envy, when almost its very existence depended on unanimity. In June 1298 Edward, who had all this time been in Flanders, returned to England, and summoned the Scottish barons, under pain of rebellion, to attend him in parliament; and, on their disobeying his summons, he advanced with his army towards Scotland. His main force, commanded by himself, assembled at Berwick; but a body of troops, under the earl of Pembroke, having landed in the north of Fife, were defeated with great loss by Wallace, on the 12th of June. The same month Edward invaded Scotland by the way of the eastern borders. No place resisted him except the castle of Dirleton. After a resolute defence, it surrendered to Anthony Beck, bishop of Durham. Meanwhile the Scots were assembling all their strength in the interior part of the country. Few barons of eminence repaired to the national standard. They whose names are recorded, were John Comyn of Badenoch, the younger; Sir John Stewart of Bonkill, brother to The Steward; Sir John Graham of Abercorn; and Macduff, the grand uncle of the young earl of Fife. Robert Bruce again acceded to the Scottish party; and with his followers guarded the important castle of Ayr, which kept the communication open with Galloway, Argyleshire, and the isles. The aim of Edward was to penetrate into the west, and there to terminate the war. He appointed a fleet, with provisions, to proceed to the frith of Clyde, and await his arrival in those parts. This precaution was absolutely necessary for the subsistence of his numerous army in a country impoverished and waste. Waiting for accounts of the arrival of his fleet, he established his head quarters at Temple-liston, between Edinburgh and Linlithgow. In the mean time a dangerous insurrection arose in his camp. He had bestowed a donative of wine among his soldiers; they became intoxicated; a national quarrel ensued. In this tumult the

Welsh slew eighteen English ecclesiastics. The English horsemen rode in among the Welsh, and revenged this outrage with great slaughter: and the Welsh, in disgust, separated themselves from the army. It was reported to Edward that they had mutinied, and gone over to the Scots: 'I care not,' said Edward, dissembling the danger, 'let my enemies go and join my enemies; I trust that in one day I shall chastise them all.' Edward was now placed in most critical circumstances. As the fleet with provisions had been detained by contrary winds, he could not venture to advance, neither could he subsist any longer in his present quarters. To retreat would have sullied the glory of his arms, and exposed him to the obloquy and murmurs of a discontented people. Yet he submitted to this hard necessity: and commanded his army to return to the eastern borders. At this moment intelligence arrived that the Scots were advanced to Falkirk. Edward instantly marched against them. His army lay that night in the fields. While Edward slept on the ground, his war-horse struck him and broke two of his ribs. The alarm arose that the king was wounded. They who knew not the cause, repeated the cry, 'The king is wounded; there is treason in the camp; the enemy is upon us.' Edward mounted on horseback, and by his presence dispelled the panic. With a fortitude of spirit superior to pain, he led on his troops: and at break of day the Scottish army was descried, forming on a stony field, at the side of a small eminence, in the neighbourhood of Falkirk. Wallace ranged his infantry in four bodies. The archers, commanded by Sir John Stewart, were placed in the intervals. The horse, amounting to no more than 1000, were at some distance in the rear. On the front of the Scots lay a morass. Having drawn up his troops in this order, Wallace pleasantly said, 'Now I have brought you to the ring, dance according to your skill.' Edward placed his chief confidence in the numerous and formidable body of horsemen whom he had selected for the Scottish expedition. These he ranged in three lines. The first was led by Bigot, earl marshal, and the earls of Hereford and Lincoln; the second by the bishop of Durham, having under him Sir Ralph Basset of Drayton; the third, intended for a reserve, was led by the king himself. His infantry probably were drawn up behind, to support the cavalry, and to annoy the Scots with their arrows. Bigot, at the head of the first line, rushed on to the charge. He was checked by the morass, which in his impetuosity he had overlooked. This obliged him to incline to the solid ground on his left, towards the right flank of the Scottish army. The bishop of Durham, who led the second line, inclined to the right, turned the morass, and advanced towards the left flank of the Scottish army. He proposed to halt till the reserve should advance. 'To mass, Bishop,' cried Basset, and instantly charged. The shock of the English cavalry on each side was violent, and gallantly withstood by the Scottish infantry; but the Scottish cavalry, dismayed at the number and force of the English men at arms, immediately quitted the field. Stewart, while giving orders to his archers, was

thrown from his horse and slain. His archers crowded round his body and perished with him. Often did the English strive to force the Scottish circle. 'They could not penetrate into that wood of spears,' as one of their historians speaks. By repeated charges, the outermost ranks were brought to the ground. The English infantry incessantly galled the Scots with showers of stones and arrows. Macduff and Sir John Graham fell. At length the Scots were broken by the numbers and weight of the English cavalry, and the rout became universal. The number of the Scots slain in this battle must have been very great. As is commonly the case, it is exaggerated by the historians of the victors, and reduced too low by those of the vanquished. On the side of the English the loss was inconsiderable. The only persons of note who fell were Brian le Jay, master of the English Templars, and the prior of Torphichen in Scotland, a knight of another order of religious soldiery. The Scots in their retreat burnt the town and castle of Stirling. Edward repaired the castle, and made it a place of arms. He then marched to the west. At his approach, Bruce burnt the castle of Ayr, and retired. Edward would have pursued him into Carrick; but the want of provisions stopped his further progress. He turned into Annandale, took Bruce's castle of Lochmaben, and then departed out of Scotland by the western borders. Here may be remarked the fatal precipitancy of the Scots. If they had studied to protract the campaign, instead of hazarding a general action at Falkirk, they would have foiled the whole power of Edward, and reduced him to the necessity of an inglorious retreat. In 1299 Edward released John Baliol, the unfortunate king of Scotland, whom he had kept close prisoner ever since 1296. Before this time Baliol had used the most disgraceful methods to recover his liberty. He had solemnly declared that 'he would never have any intercourse with the Scots; that he had found them a false and treacherous people; and that he had reason to suspect them of an intention to poison him.' However, notwithstanding all his protestations, Edward still detained him in captivity; but at last released him at the mediation of the pope, though after a singular form. He ordered the governor of Dover to convey him to the French coast, and there to deliver him to the papal nuncio, 'with full power to the pope to dispose of Baliol and his English estate.' In consequence of which he was conveyed to Witsand, delivered to the nuncio in presence of a notary and witnesses, and a receipt taken for his person. Notwithstanding this abject state, however, the Scots continued to own him for their king, and to assert their national independency: and, though the misfortune at Falkirk had deprived them of a very considerable extent of territory, they were still in possession of the whole country beyond the Forth, as well as the county of Galloway.

By general consent William Lamberton, archbishop of St. Andrew's, Robert Bruce earl of Carrick, and John Cummin the younger, were chosen guardians of Scotland in the name of Baliol. Wallace at this time was reduced to the condition of a private man; nor had he any longer

the command of the Scots armies, nor any share in their councils. The new guardians undertook to reduce the castle of Stirling, and Edward prepared to defend it. The Scots posted themselves at the Torwood, and chose their ground so judiciously that Edward could scarcely have raised the siege without dislodging them; which, finding it impossible for him to do, he returned home in disgust. Next year he invaded Scotland on the west side, wasted Annandale, and reduced Galloway; but the Scots, being taught by experience to avoid a general action, chose their posts with such skill that Edward could not penetrate farther; and the same year a truce was concluded with the Scots, to continue till Whitsunday 1301. This year a new competitor appeared for the crown of Scotland. Boniface VIII., in a bull directed to Edward, averred that Scotland belonged anciently, and did still belong, to the holy see; and supported his extravagant claim by some strange authorities, such as, that Scotland had been miraculously converted by the relics of St. Andrew; after which he proceeded to show the futility of Edward's pretensions, and that Scotland never had any feudal dependence on England. He required Edward to set at liberty all the Scottish ecclesiastics, particularly Wishart bishop of Glasgow, and to remove his officers from the patrimony of the church: 'But,' added he, 'should you have any pretensions to the whole, or any part of Scotland, send your proctors to me within six months; I will hear and determine according to justice; I take the cause under my own peculiar cognizance.' This interposition of the pope had probably been procured by Scottish emissaries at the court of Rome; but, however ridiculous his pretensions might be, they afforded matter of very serious consideration to Edward. After spending a whole winter in deliberations, Edward and his parliament made separate answers to the pope. The answer of the parliament stated that 'All England knew that, ever since the first establishment of this kingdom, its kings had been liege-lords of Scotland. At no time had the kingdom of Scotland belonged to the church. In temporals the kings of England are not amenable to the see of Rome. We have with one voice resolved that, as to temporals, the king of England is independent of Rome; that he shall not suffer his independency to be questioned; and therefore that he shall not send commissioners to Rome. Such is, and such, we trust in God, ever will be, our opinion. We do not, we cannot, permit our king to follow measures subversive of that government which we have sworn to maintain, and which we will maintain.' The king entered into a more full refutation of the pope's arguments; and having, as he thought, answered them sufficiently, marched again into Scotland; but, by the mediation of France, another truce was concluded, to last till St. Andrew's day 1302. After the expiration of the truce, Edward sent an army into Scotland, under John de Seagrave. This general divided his troops into three bodies; but, keeping them so far distant that they could not support each other, they were all engaged and defeated in one day by the Scots, near Roslin. This, however, was the last successful ex-

plot of the Scots at this period. The pope deserted them, and the king of France concluded a peace with England, in which all mention of the Scots was industriously avoided; so that they were left alone to bear the whole weight of Edward's resentment, who now invaded their country in person with a mighty army. He met with no resistance in his progress, except from the castle of Brechin, which was commanded by Thomas Maul, a brave and experienced officer. He held out for twenty days against the whole power of the English army; but at last, being mortally wounded, the place capitulated. Thence Edward proceeded northward, according to some historians, as far as Caithness. He then returned towards the south, and wintered in Dunfermline. Here was an abbey of the Benedictines, a building so spacious that, according to an English historian, three sovereign princes, with all their retinue, might have been lodged within its precincts, and the Scottish nobles often held their assemblies here. The English soldiers utterly demolished this magnificent fabric. The only fortress that remained in the possession of the Scots was the castle of Stirling, where Sir William Oliphant commanded. To protect this single place of refuge, Comyn assembled all his forces. He posted his army on the south bank of the river, in the neighbourhood of Stirling, there to make the last stand for the national liberty. The Scots fondly imagined that Edward would attempt to force the passage, as the impetuous Cressingham had attempted in circumstances not dissimilar. But the prudence of Edward frustrated their expectations. Having discovered a ford at some distance, he crossed the river at the head of his whole cavalry. The Scots gave way, and dispersed themselves. All resources but their own courage had long failed them; that last resource failed them now, and they hastened to conciliate the favor of the conqueror. Previous to this Bruce had surrendered himself to John de St. John, the English warden. Comyn and his followers now submitted to Edward. They stipulated for their lives, liberties, and estates; reserving always to Edward the power of inflicting pecuniary mulcts on them as he should see fit. From the general conditions of this stipulation, the following persons were excepted: Wishart, bishop of Glasgow, the Steward, Sir John Soulis, David de Graham, Alexander de Lindesay, Simon Fraser, Thomas Bois, and Wallace. With respect to them, it was provided that the bishop of Glasgow, the Steward, and Soulis, should remain in exile for two years, and should not pass to the north of Trent; that Graham and Lindesay should be banished from Scotland for six months; that Fraser and Bois should be banished for three years from all the dominions of Edward, and should not be permitted, during that space, to repair to the territories of France. 'As for William Wallace, it is agreed, that he shall render himself up at the will and mercy of our sovereign lord the king, if it shall seem good to him.' These were all the conditions that the Scottish nation stipulated for the man who had vanquished the English at Stirling, who had expelled them from Scotland, and who had once set his country free! But

Wallace scorned submission. He lived a freeman; a freeman he was resolved to die. Fraser, who had too oft complied with the times, now caught the same heroic sentiments. But their endeavours to rouse their countrymen were vain. The season of resistance was past. Wallace perceived that there remained no more hope; and sought out a place of concealment, where eluding the vengeance of Edward, he might silently lament over his fallen country. Edward now assembled at St. Andrew's what is called a parliament, where Wallace, Fraser, and the garrison of Stirling, were summoned to appear; and sentence of outlawry was pronounced against them. Edward then prepared to besiege the castle of Stirling; and, foreseeing that the reduction of this place would be attended with difficulty, stripped the abbey of St. Andrew's of the lead which covered it, in order to employ the metal in bullets for his battering machines. Oliphant was solemnly summoned to surrender, but in vain. Edward drew out all his artillery, and battered the walls with stones of 200 lbs. weight. The besieged, however, defended themselves with obstinacy, and killed a great number of the English; but at last they were obliged to surrender; and Edward, looking upon the conquest of Scotland as now complete, set out for York, and thence to Lincoln.

Edward, though he had thus met with all the success he could desire in his expeditions against the Scots, could not but perceive that his dominion over them must be very precarious, as long as he held them in subjection as a conquered people. He resolved therefore once more to renew his attempts for an union of the two kingdoms. He began with taking into favor the bishop of Glasgow, Robert Bruce, and John Mowbray, who, next to Bruce and the Cummings, were the most powerful of the greatest of the Scottish nobility. To them he recommended the settling the affairs of their country, but in such a manner as to leave it in his power to effect the proposed union with England. This scheme, however, was by no means agreeable to Bruce, who had now no other competitor for the crown but Cumming, who was in a great measure incapable of opposing his designs; neither indeed could it ever be made agreeable to the bulk of the nation; and therefore came to nothing at last. Scotland, however, was subdued. Its inhabitants had renounced every idea of asserting their liberty, and only strove to make their court to the conqueror. Wallace alone still remained an exception. Edward, who had received into favor those who had proved traitors over and over again, showed a mean revenge against the only man who discovered a steady and honorable spirit, and whose friendship seemed worth the courting. Ralph de Haliburton, a prisoner, offered his assistance for discovering Wallace; and for this purpose was granted a temporary liberty; but what he did in this very dishonorable employment is unknown. Certain it is that Wallace was discovered and betrayed into the hands of the English by Sir John Menteith. This celebrated and heroic patriot was arraigned at Westminster as a traitor to Edward, and as having burnt villages, stormed castles, and

slaughtered many subjects of England. Wallace denied his ever having been a traitor, and indeed with truth; for he had always been the avowed enemy of Edward, and had not at any time owned allegiance to him. But whatever his defence might have been it was of no avail with a judge who had resolved on his destruction. Wallace was condemned to die a traitor's death, and the sentence was executed with the utmost rigor! In his last moments he asserted that independency which a degenerate nation had renounced. His head was placed on a pinnacle at London, and his mangled limbs were distributed over the kingdom.

After the death of Wallace, Edward thought of nothing but settling the affairs of Scotland as a conquered country; however, he took care to preserve the ancient forms so far as was consistent with the dependent state of the nation. It has been said, indeed, that Edward abrogated all the Scottish laws and customs, and endeavoured to substitute the English in their stead; but this is denied by others. Lord Hales gives at length the record with respect to these laws, for which we refer the inquisitive reader to his work. An indemnity was now granted to the Scots upon certain conditions. Various fines were imposed from one to five years rent of the estates of the delinquents. The person taxed was to pay half his income annually; and thus Umfraville, taxed in five years rent, was allowed ten years to discharge the fine. There was an express reservation to Edward of all the royal demesnes which Baliol might have alienated. There was also an exception for those who were already in custody, and those who had not yet submitted. Thus, after a long and obstinate contest, was Scotland wholly reduced under the dominion of Edward. Within four months, however, that system was overthrown, which the incessant labor of fifteen years had established by craft, dissimulation, and violence, with a waste of treasure, and the effusion of much blood. The causes of this event are related as follows:—Dervegil of Galloway had a son, John Baliol, and a daughter named Marjory. John Comyn was the son of Marjory, and, setting Baliol aside, was heir to the pretensions of Dervegil. He had for many years maintained the contest against Edward; but at last laid down his arms, and swore fealty to the conqueror; and, as Baliol had repeatedly renounced all pretensions to the crown of Scotland, Comyn might now be considered as the rightful heir. His rival in power and pretensions was Bruce, earl of Carrick. This young nobleman's grandfather, the competitor, had patiently acquiesced in the award of Edward. His father, yielding to the times, had served under the English banners. But young Bruce had more ambition, and a more restless spirit. In his earlier years he acted upon no regular plan. By turns the partisan of Edward, and the vicegerent of Baliol, he seems to have forgotten or stifled his pretensions to the crown. But his character developed itself by degrees, and in maturer age became firm and consistent. According to the traditionary report, Bruce made the following proposal to Comyn:—‘Support my title to the crown, and I will give you my estate; or give me your estate, and I will support your’s.’ The

conditions were properly drawn out and signed by both parties; but Comyn, either through fear or treachery, revealed the whole to Edward. On this the king showed Bruce the letters of his accuser, and questioned him closely; but the latter found means to pacify him by mild and judicious answers. Notwithstanding this, however, Edward still suspected him, though he dissembled his sentiments, until he should get the brothers of Bruce into his power. The king, having drank freely one evening, informed some of his lords that he had resolved to put Bruce to death next day. The earl of Gloucester, hearing this resolution, sent a messenger to Bruce with twelve pence and a pair of spurs, as if he had meant to restore what he had borrowed. Bruce understood the meaning of his message, and prepared for flight. The ground was covered with snow, which would have discovered his flight; but he ordered, it is said, his farrier to invert the shoes of his horses, and immediately set out for Scotland, in company with his secretary and groom. In his way he observed a foot passenger whose behaviour seemed to be suspicious, and whom he soon discovered to be the bearer of letters from Comyn to the English monarch, urging the death or immediate imprisonment of Bruce. The latter, filled with resentment, immediately beheaded the messenger, and set forward to Lochmaben, where he arrived the seventh day after his departure from London. Soon after this he repaired to Dumfries, where Comyn happened at that time to reside. Bruce requested an interview with him in the convent of the Minorites, where he reproached him with his treachery. Comyn gave him the lie, and Bruce instantly stabbed him; after which he hastened out of the convent and called ‘to horse.’ His attendants, Lindsay and Kirkpatrick, perceiving him pale, and in extreme agitation, enquired how it was with him? ‘Ill,’ replied Bruce, ‘I doubt I have slain Comyn.’ ‘You doubt,’ cried Kirkpatrick; on saying which, he rushed into the place where Comyn lay, and instantly despatched him. Sir Robert Comyn, a relation, attempted to defend his kinsman, and shared his fate. Bruce had now gone so far that it was in vain to think of retracting; and therefore set himself in opposition to Edward in good earnest. The justiciaries were then holding their court at Dumfries; who, hearing what had happened, imagined their own lives to be in danger, and barricaded the doors. Bruce ordered the house to be set on fire: upon which they surrendered; and Bruce granted them leave to depart out of Scotland without molestation. The above account of this catastrophe, taken from the Scottish historians, seems probable; but those of the English writers differ in many particulars. Lord Hales supposes both to be wrong, and that the true circumstances of the quarrel are unknown. The death of Comyn affected the Scots variously, according to their different views and interests. The relations of the deceased viewed it as a cruel assassination, and joined with Edward in schemes of revenge. Some, who wished well to the peace of their country, thought it was better to submit quietly to the English, than to attempt a revolution, which could not be effected without much danger and bloodshed; but, on the other hand, the

friends of Bruce now saw the necessity they were under of proceeding to the coronation of the new king without loss of time. The ceremony was therefore performed at Scone on the 25th of March, 1306, in presence of two earls, the bishops of Andrew's and Glasgow, the abbot of Scone, John de Athol, and John de Menteith. It had been customary, since the days of Macbeth, for one of the family of Fife to put the crown on the king's head; and Bruce found the prepossession of the Scots in favor of this circumstance so strong that he was obliged to seek for an expedient to satisfy them. Macduff, the earl of Fife, was at that time in England, where he had married a near relation of Edward. His sister was wife to the earl of Buchan, one of the heads of the family of Comyn, and consequently the determined enemy of Robert. But, by an uncommon effort of female patriotism, she postponed all private quarrels to the good of her country, and, in her husband's absence, repaired, with all his warlike accoutrements, to Bruce, to whom she delivered them up, and placed the crown upon his head. This crown is said to have been made by Conyers, an Englishman, who narrowly escaped being punished for it by Edward.

The king of England received intelligence of these proceedings with astonishment; and without delay sent a body of troops under Aymer de Valence, earl of Pembroke, to suppress the alleged rebellion. Bruce omitted nothing for his defence. He had always been considered by his countrymen as an accomplished young nobleman, firmly attached to Edward's person and government; and confided in as such by those independent patriots who joined Wallace. But their utmost confidence was now gained by his rendering himself so obnoxious to Edward that no possibility of a reconciliation was left; and he soon saw himself at the head of an army. With these Bruce formed a camp at Methven, near Perth, the head-quarters of the enemy; but knowing the disadvantage under which he labored from the inexperience of his men, he resolved to act upon the defensive. The English general sent Bruce a challenge to fight him, which was accepted; but the day before the battle was to have been fought by agreement, the Scots were attacked by surprise, and totally defeated. Bruce behaved with the greatest valor, and had three horses killed under him. Being known by the slaughter which he made, John Mowbray, a man of great courage and resolution, rushed upon him, and catching hold of his horse's bridle, cried out, 'I have hold of the new made king!' but he was delivered by Christopher Seaton. After the battle many prisoners were hanged and quartered. This disaster almost gave the finishing stroke to the affairs of Bruce. He now found himself deserted by a great part of his followers. The English had taken prisoners great numbers of women whose husbands followed him; and all those were now ordered, on pain of death, to return to their husbands. Thus was Bruce burdened with a number of useless adherents, and found it hard to subsist. The consequence was that most of his men departed with their families, so that in a few days his force

was reduced to 500. With these he retreated to Aberdeen, where he was met by his brother Sir Neil, his wife, and a number of other ladies, the latter of whom he persuaded to retire to his castle of Kildrummey, under the protection of Sir Neil Bruce and the earl of Athol. In the mean time the desertion among Bruce's troops continued, so that now he had with him not more than 200 men; and, as winter was coming on, he resolved to go into Argyleshire, where Sir Neil Campbell's estate lay. In his way thither he encountered incredible difficulties; and, some of his followers being cut off at a place called Dalry, the rest were so disheartened that they all forsook him, excepting Sir Gilbert Hay, Sir James Douglas, and a few domestics. Bruce, however, kept up the spirits of his little party by recounting to them the adventures of princes and patriots in circumstances similar to his own. Having crossed Lochlomond in a small crazy boat, he was discovered by his trusty friend the earl of Lenox, who had been proscribed in England, and now lived in a kind of exile on his own estate. The meeting between these friends was very affecting, and drew tears from the eyes of all present. Lenox, who had heard nothing of Bruce's misfortunes, furnished him and his half-famished attendants with plenty of provisions; but being soon made sensible that it was impossible for them to live in a place where they were well known, and surrounded by enemies, Bruce resolved to seek out some more safe habitation. For this purpose Sir Neil Campbell had already provided shipping; but our adventurers had scarcely set sail, when they were pursued by a large squadron of the enemy's fleet. The bark which carried the earl of Lenox escaped with the utmost difficulty to Cantire, where Bruce was already landed; and, at their meeting, both agreed they would never afterwards be separated. In the mean time Edward, having compromised some differences with his English subjects, resumed his old project of entirely subduing Scotland; and his intention appears to have been to divide the lands of such as he suspected of disaffection among his English followers. He ordered a proclamation to be issued, that all who had any title to the honor of knighthood, either by heritage or estate, should repair to Westminster to receive all military ornaments, their horses excepted, from his royal wardrobe. As the prince of Wales came under this denomination, he was the first who underwent the ceremony; which gave him a right to confer the like honor on the sons of above 300 of the chief nobility and gentry of England. The prince then repaired, at the head of his gallant train, to Edward; who received them, surrounded by his nobility, in the most solemn manner. The king then made a speech on the treachery of the Scots, whose entire destruction he vowed. He declared his resolution of once more heading his army in person; and desired, in case of his death, that his body might be carried to Scotland, and not buried till signal vengeance was taken on the perfidious nation. Having then ordered all present to join him within fifteen days, with their attendants and military equipages, he prepared for his journey

northward. He entered the country soon after Bruce's defeat at Methven. The army was divided into two bodies; one commanded by the king, the other by the prince of Wales, and, under him, by the earls of Lancaster and Hereford, with orders to proceed northwards, and penetrate into the countries where the interest of Bruce was strongest. As he passed along, Edward caused all that fell into his hands, whom he suspected of favoring Bruce's party, to be immediately executed. The bishop of Glasgow was the only exception to this barbarity: he was taken, but had his life spared on account of his function. In the mean time, as the prince of Wales continued his march, Bruce's queen began to be alarmed for her safety. She was advised to take sanctuary at the shrine of St. Duthac in Rosshire; but there she was made prisoner by William earl of Ross, who was of the English party. By Edward's order she was sent to London; her daughter, who was taken at the same time, being shut up in a religious house. The directions for the entertainment of the queen are still preserved. She was to be conveyed to the manor of Brustewick; to have a waiting-woman and a maid-servant, advanced in life, sedate, and of good conversation: a butler, two men servants, and a foot-boy for her chamber, 'sober, not riotous,' to make her bed; three greyhounds when she inclines to hunt; venison, fish, and the fairest house in the manor. In 1308 she was removed to another prison; in 1312 she was removed to Windsor Castle, 20s. per week being allowed for her maintenance. In 1314 she was committed to Rochester Castle, and was not set at liberty till the close of that year. The only fortress which Bruce possessed in Scotland was the castle of Kildrummy; and it was soon besieged by the earls of Lancaster and Hereford. One Osburn treacherously burnt the magazine; by which means the garrison, destitute of provisions, was obliged to surrender at discretion. The common soldiers were hanged; Sir Neil Bruce and the earl of Athol were sent prisoners to Edward, who caused them to be hanged on a gallows fifty feet high, and then beheaded and burnt. The countess of Buchan, who had crowned king Robert, was taken prisoner; as was lady Mary Bruce, the king's sister. Some historians say that Edward ordered these two ladies to be shut up in wooden cages, one to be hung over the walls of the castle of Roxburgh, and the other over those of Berwick, as public spectacles: but lord Hales tells us that the countess of Buchan was put into close confinement in the castle of Berwick. About this time, also, many others of Bruce's party were put to death; among whom were Thomas and Alexander Bruce, two of the king's brothers, and John Wallace, brother to the celebrated Sir William. Bruce himself, in the mean time, was in such a despicable situation that it was thought he never more could give disturbance; it was even reported that he was dead. All his misfortunes, however, could not intimidate him, or prevent his meditating a most severe revenge upon the destroyers of his family. He first removed to the castle of Dumbarton, where he was hospitably received and entertained by Angus

lord of Kintyre: but, suspecting that he was not safe there, he sailed in three days to Rachrin, a small island on the Irish coast, where he secured himself effectually from the pursuit of his enemies. It was during his stay in this island that the report of his death was generally propagated. Notwithstanding this, his party increased considerably; even when he landed on this island, he was attended by 300 men. However, after having lived secluded for some time, being apprehensive that the report of his death might be generally credited among his friends, it was resolved to attempt the surprise of a fort held by the English under Sir John Hastings, on the isle of Arran. This was performed with success by his two friends Douglas and Sir Robert Boyd, who put the greatest part of the garrison to the sword. The king, hearing of their success, passed over into Arran; but, not knowing where his people resided, is said to have found them out by blowing a horn. He then sent a trusty servant, one Cuthbert, into his own county of Carrick; with orders, in case he found it well affected to his cause, to light a fire on a certain point near his castle of Tunberry, whence it could be discerned in Arran. Bruce and his party perceived the signal, as they thought, and immediately put to sea. Their voyage took up but little time; and, as Bruce had now 400 men along with him, he resolved immediately to act on the offensive. His first exploit was to surprise his own castle of Tunberry, which had been given, along with Bruce's estate, to lord Henry Percy. Him he drove out, along with the English garrison; but, in the mean time, he met with his servant Cuthbert, who gave him disagreeable intelligence. This man had met with very little encouragement in Scotland; in consequence of which he had not lighted the fire agreed upon as a signal of his success, that which Bruce had observed having been kindled by accident. He also told him that the English were in full possession of the country. Soon after this the king was joined by a lady of fortune, who brought along with her forty warriors. By her he was first particularly informed of the miserable fate of his family and relations; which, instead of disheartening, animated him the more with a desire of revenge. However, he did not immediately attempt any thing, but allowed Douglas to make an effort for the recovery of his estate of Douglasdale. In this expedition Douglas was joined by one Thomas Dickson, a man of considerable fortune, and who gave him intelligence concerning the state of the country. By his advice he kept himself private till Palm Sunday, when he and his followers with covered armor repaired to St. Bride's church, where the English were attending divine service. The latter were surprised, but made a brave defence; until being overpowered by numbers they were obliged to yield. Douglas, without farther resistance, took possession of his own castle, which he found well furnished with arms, provisions, and money. He destroyed all that he could not carry with him, and also the castle itself, where he knew that he must have been besieged had he kept it. While Bruce and his friends were thus signalling themselves, and struggling with

the English under so many disadvantages, they met with many difficult adventures related by the Scottish historians; but, as it is now impossible to distinguish the true from the false, we shall pass over the greater part in silence, confining ourselves only to those facts which are important and well authenticated. In 1307 the earl of Pembroke advanced into the west of Scotland to encounter Bruce. The latter did not decline the combat; and Pembroke was defeated. Three days after this, Bruce defeated with great slaughter another English general named Ralph de Monthermer, and obliged him to fly to the castle of Ayr. The king laid siege to the castle for some time, but retired at the approach of succors from England. This year the English performed nothing, except burning the monastery at Paisley. Edward, however, resolved still to execute his utmost vengeance on the Scots, though he had long been retarded by a dangerous indisposition. He was now so weak, however, that he could advance no farther than six miles in four days; after which he expired in sight of Scotland, which he had so often devoted to destruction. With his dying breath he gave orders that his body should accompany his army into Scotland, and remain unburied until the country was totally subdued; but his son caused it to be deposited in Westminster Abbey.

The death of such an inveterate enemy to the Scottish name could not fail of raising the spirits of Bruce and his party; and the inactive and timid behaviour of his successor Edward II. contributed not a little to give them fresh courage. After having granted the guardianship of Scotland to his favorite Piers de Gaveston, earl of Pembroke, whom his father had lately banished, he advanced to Cumnock, on the frontiers of Ayrshire, and then retreated into England; conferring the office of guardian of Scotland upon John de Bretagne, earl of Richmond, a fortnight after he had bestowed it upon Gaveston. He was no sooner gone than Bruce invaded Galloway. The inhabitants refusing to follow his standard, he laid waste the country; but was defeated and obliged to retire northwards by the guardian. In the north he overran the country without opposition; and soon began to move southwards again to repair his late disaster. He was encountered by Comyn, earl of Buchan, with an undisciplined body of English, whom he entirely defeated and dispersed. But about this time he was seized with a grievous distemper, which weakened him so much that no hopes were left of his recovery. In this enfeebled situation he was attacked by the earl of Buchan and John Mowbray, an English commander, who had assembled a body of troops. The armies met at Inverary in Aberdeenshire. Bruce was too weak to support himself, and therefore was held upon horseback by two attendants; but he had the pleasure of seeing his enemies totally defeated, and pursued with great slaughter for many miles: it is reported that the agitation of his spirits on that day proved the means of curing him of his disease. This battle was fought on the 22nd of May, 1308. The king of Scotland now took revenge of his enemies, after

the manner of that barbarous age, by wasting the county of Buchan with fire and sword; and his success had so raised his character that many of the Scots who had hitherto adhered to the English cause now came over to him. Edward, the king's brother, invaded Galloway, and defeated the inhabitants of that country. John de St. John, an English commander, with 1500 horsemen, attempted to surprise him; but Edward, having received timely information of his designs, ordered the infantry to entrench themselves strongly, while he himself, with fifty horsemen well armed, under cover of a thick mist, attacked his enemies and put them to flight. After this he reduced all the fortresses in the country, and totally expelled the English. About this time also, Douglas, when roving about the mountainous parts of Tweedale, surprised and made prisoners Thomas Randolph the king's nephew, and Alexander Stewart of Bonkil, who had hitherto continued inimical to the interests of Robert. Randolph was conducted to the king, but talked to him in a haughty strain; upon which his uncle put him into close confinement. The next exploit of Robert was against the lord of Lorn, a division of Argyleshire. It was this nobleman who had reduced the king to such straits after his defeat at Methven; and he now resolved to take ample revenge. Having entered the country, the king arrived at a narrow pass, where the troops of Lorn lay in ambush. This pass had a high mountain on the one side, and a precipice washed by the sea on the other; but Robert having ordered Douglas to make a circuit and gain the summit of the mountain with part of the army, he entered himself with the rest. He was immediately attacked; but Douglas with his men rushed down the hill, and decided the victory in favor of the king; who soon after took the castle of Dunstaffnage, the chief residence of this nobleman. While Robert and his associates were thus exciting the admiration of their countrymen by their exploits, the English were so unsettled and fluctuating in their counsels that their party knew not how to act. Edward still imagined that there was a possibility of reconciling the Scots to his government; and for this purpose he employed William de Lamberton, bishop of St. Andrew's, who, after having been taken prisoner, and carried from one place of confinement to another, had at last made such submissions as procured first his liberty and then the confidence of Edward. This ecclesiastic, having taken a most solemn oath of fidelity to the English monarch, now resolved to ingratiate himself, by publishing against Robert and his adherents a sentence of excommunication, which had been resolved on long before. This, however, produced no effect; and the event was that in 1309, through the mediation of the king of France, Edward consented to a truce with the Scots. This pacific disposition, however, lasted not long. The truce was scarcely concluded when Edward charged the Scots with violating it, and summoned the barons to meet him in arms at Newcastle; yet, probably being doubtful of the event of the war, he empowered Robert de Umfraville, and three

others, to conclude a new truce; declaring, however, that he did this at the request of Philip king of France, as his dearest father and friend, but who was in no sort to be considered as the ally of Scotland. The new negotiations were soon interrupted. They were again renewed; and, in the beginning of 1310, the truce was concluded, but entirely disregarded by the Scots. The progress of Bruce now became alarming. The town of Perth, a place at that time of great importance, was threatened; and, to relieve it, Edward ordered a fleet to sail up the river Tay; he also commanded the earl of Ulster to assemble a body of troops at Dublin, and thence to invade Scotland; his own barons were ordered to meet him in arms at Berwick. About the end of September he entered Scotland; passed from Roxburgh through the forest of Selkirk to Biggar; thence he penetrated into Renfrew; and, turning back by the way of Linlithgow, he retreated to Berwick, where he continued inactive eight months. During this invasion, Robert had carefully avoided a battle with the English, well knowing that an invasion undertaken in autumn would ruin the heavy armed cavalry, on which the English placed their chief dependence. His cause was also favored by a scarcity which prevailed at this time in Scotland; for, as magazines and other resources of modern war were then unknown, the English army were greatly retarded in their operations, and found it impossible to subsist in the country. The spirit of enterprise had now communicated itself to all ranks of people in Scotland. In 1311 the castle of Linlithgow was surprised by a poor peasant, named William Binnock. The English garrison were secure, and kept but a slight guard; of which Binnock being informed, concealed eight resolute men in a load of hay, which he had been employed to drive into the castle. With these, as soon as the gate was opened, he fell upon the feeble guard, and became master of the place; which was dismantled by Robert, as well as all the other castles taken in the course of the war. Edward now resolved to invade Scotland again; and for this purpose ordered his army to assemble at Roxburgh. But Robert, not contented with acting on the defensive, resolved in his turn to invade England. He accordingly entered that country, and cruelly ravaged the bishopric of Durham. He returned loaded with spoil, and laid siege to Perth. After remaining six weeks before that place, he raised the siege, but returned in a few days, and, having provided scaling ladders, approached the works with a chosen body of infantry. In a dark night he made the attack; and, having waded through the ditch, though the water stood to his throat, he was the second man who reached the top of the walls. The town was then soon taken; after which it was plundered and burnt, and the fortifications levelled with the ground, on the 8th of January, 1312.

Edward was now become weary of the war, and renewed his negotiations for a truce; but they still came to nothing. Robert again invaded England; burnt great part of the city of Durham; and even threatened to besiege Berwick where the king of England had for the

time fixed his residence. He next reduced the castles of Butel, Dumfries, and Dalswinton, with many other fortresses. The castle of Roxburgh, a place of the utmost importance, then fell into his hands. The walls were scaled while the garrison was revelling on the eve of Lent. They retreated into the inner tower; but their governor a Frenchman, having received a mortal wound, capitulated. Randolph, the king's nephew, was now received into favor, and began to distinguish himself in the cause of his country. He blockaded the castle of Edinburgh so closely that all communication with the neighbouring country was cut off. The place was commanded by one Leland, a knight of Gascony; but the garrison, suspecting his fidelity, imprisoned him in a dungeon, and chose another commander in his stead. One William Frank presented himself to Randolph, and informed him how the walls might be scaled. This man in his youth had resided in the castle; and, having an intrigue with a woman in the neighbourhood, had been accustomed to descend the wall during the night, by means of a ladder of ropes; whence, by a steep and difficult path, he arrived at the foot of the rock. Randolph himself, with thirty men, undertook therefore to scale the castle walls at midnight. Frank was their guide, who still retained a perfect memory of the path, and who first ascended the wall. But, before the whole party could reach the summit, an alarm was given, the garrison ran to arms, and a desperate combat ensued. The English fought valiantly till their commander was killed; after which they threw down their arms. Leland, the former governor, was released from his confinement, and entered into the Scottish service. In 1313 king Robert found the number of his friends still increasing. He was now joined by the earl of Athol, who had lately obtained a grant of lands from Edward. This year, through the mediation of France, the conferences for a truce were renewed. These, however, did not retard the military operations of the Scots. Cumberland was invaded and laid waste; the miserable inhabitants besought Edward's protection; who commended their fidelity, and desired them to defend themselves. In the mean time Robert, leaving Cumberland, passed over into the Isle of Man, which he totally reduced. Edward found great difficulties in raising the supplies necessary for carrying on the war; but at last overcame all these, and by the beginning of 1314 was prepared to invade Scotland with a large army. In March he ordered his ships to be assembled for the invasion; invited to his assistance Eth O'Connor, chief of the Irish of Connaught, and twenty-six other Irish chiefs; summoned them and his subjects in Ireland to attend his standard, and gave the command of these auxiliaries to the earl of Ulster. His barons were summoned to meet him at Berwick on the 12th of June, and 22,000 foot soldiers, from the different counties of England and Wales, were required by proclamation to assemble at Wark. In the mean time the successes of the Scots continued. Edward Bruce had reduced the castles of Rutherglen and Dundee, and laid siege to the castle of Stirling. The governor agreed to surrender, if he was not re-

lieved before the 24th of June, 1314: and to this Edward agreed, without consulting his brother. The king was highly displeased with this rash treaty, which interrupted his own operations, allowed the English time to assemble their utmost force, and at last obliged him either to raise the siege, or to put all on the event of a single battle. However, he resolved to abide by the agreement, and to meet the English by the appointed day. Having ordered a general rendezvous of his forces between Falkirk and Stirling, he found their number to amount to somewhat more than 30,000, besides upwards of 15,000 of an undisciplined rabble that followed the camp. He determined to wait the English in a field which had the burn or brook of Bannock on the right and Stirling on the left. His chief dread was the strength and number of the English cavalry, and these he took every method to oppose. The banks of the Bannock were steep in many places, and the ground between it and Stirling was partly covered with wood. The king commanded many pits, of about a foot in breadth and two or three feet deep, to be dug in all places where cavalry could have access. From the description given of them, by the historians of those times, there seem to have been many rows of them, with narrow intervals. They were carefully covered with brushwood and sod, so that they would easily be overlooked by a rash and impetuous enemy. He also made use of caltrops, to annoy the horses. On the 23d of June the Scots received intelligence of the approach of Edward, and prepared to decide the fate of their country. The front of their army extended from the Bannockburn nearly to St. Ninians, almost upon the line of the present turnpike road from Stirling to Kilsyth; and the stone in which the king is said to have fixed his standard is still to be seen. Robert commanded all his soldiers to fight on foot. He gave the command of the centre to Douglas and Walter, the grand steward of Scotland; his brother Edward had the command of the right wing, and Randolph of the left; the king himself taking charge of the reserve, which consisted of the men of Argyle, Carrick, and the islanders. In a valley to the rear, west of a rising ground, now called Gilles' Hill, he placed the baggage, and all the useless attendants of his army. Randolph was commanded to be vigilant in preventing the English from throwing succors into the castle of Stirling; but 800 horsemen, commanded by Sir Robert Clifford, made a circuit by the low grounds to the east, and soon approached the castle. The king, perceiving their motions, chid Randolph for his inadvertency, on which the latter hastened to encounter that body. As he advanced, the English wheeled to attack him. Randolph drew up his men in a circular form, presenting their spears on every side. At the first onset Sir William Daynecourt, an English commander of distinguished valor, was killed; but Randolph, who had only a small party with him, was surrounded on all sides. Douglas perceived his danger, and requested the king to let him go to his assistance; Robert at first refused, but afterwards consented with reluctance. Douglas set out without delay; but as he approached he saw the English falling into

disorder; upon which he called on his men to stop, and not diminish the glory of Randolph and his men by sharing their victory. Robert was in front of the line when the English appeared. He was meanly dressed, with a crown above his helmet, and a battle-axe in his hand. Henry de Bohun, an English knight, armed cap-a-pee, rode forward to encounter him. Robert struck his antagonist so violently with his battle-axe that he cleft him down to the chin; after which the English vanguard retreated in confusion. The Scottish generals blamed their king for his rashness in thus encountering Bohun, and he himself, conscious of the justice of their charge, only replied, 'I have broken my good battle-axe.' On Monday, the 24th of June, the whole English army moved on to the attack. The van, consisting of archers and lancemen, was commanded by Gilbert de Clare, earl of Gloucester, nephew to the English king, and Humphry de Bohun, constable of England; but the ground was so narrow that the rest of the army had not sufficient room to expand itself; so that it appeared to the Scots as consisting of one great compact body. The main body was brought up by Edward in person, attended by Aymer de Valence earl of Pembroke, and Sir Giles d'Argentine, two experienced commanders. Maurice, abbot of Inchaffray, placing himself on an eminence, celebrated mass in the sight of the Scottish army. He then passed along the front, barefooted, with a crucifix in his hands, and in few words exhorted the Scots to fight for their rights and liberty. The Scots fell down on their knees, which being perceived by Edward, he cried out, 'They yield! See, they implore mercy.' 'They do,' answered Umfraville, one of his commanders, 'they do implore mercy but not from us. On that field they will be victorious or die.' As both parties were violently exasperated against each other, the engagement began with great fury. The king of Scotland, perceiving that his troops were grievously annoyed by the English archers, ordered Sir Robert Keith the marischal, with a few armed horsemen, to make a circuit, and attack the archers in flank. This was instantly accomplished; and, as the weapons of the archers were useless in a close encounter, they could make very little resistance, at the same time that their flight spread disorder through the whole army. Robert now advanced with the reserve; the whole English army was in the utmost confusion; for the defeat of the archers had decided the victory in favor of the Scots. The young and gallant earl of Gloucester attempted to rally the fugitives, but was thrown from his horse and cut in pieces, which increased the general confusion. At this critical moment, the numerous attendants on the Scottish camp, promoted by curiosity, or the desire of plunder issued from their retirement. The English mistook them for a body of fresh troops coming to the assistance of their enemies, and fled with precipitation on all sides. Many sought refuge among the rocks in the neighbourhood of Stirling castle, and many were drowned in the rivers. Pembroke and Sir Giles d'Argentine had never quitted Edward during the action; but now, seeing the battle irremediably

lost, Pembroke constrained the king to quit the field. D'Argentine refused to fly. He was a man of great valor, and had a high reputation in Scotland. He is said to have thrice encountered two Saracen warriors at once in Palestine, and to have killed both his adversaries each time. His valor now availed him but little; for, rushing into the midst of the Scottish army, he was instantly cut in pieces. Douglas, with sixty horsemen, pursued Edward close. At the Torwood he met Sir Lawrence Abernethy, who was hastening to the English rendezvous with twenty horsemen. The latter soon abandoned the cause of the vanquished, and joined Douglas in the pursuit of Edward, who fled to Linlithgow. He had scarcely arrived there, when he was alarmed by the approach of the Scots, and again obliged to fly. Douglas and Abernethy followed him with such assiduity, that (as lord Hales says) *ne vel mingendi locus concederetur*; but, notwithstanding their utmost efforts, Edward got safe to Dunbar, where he was received by the earl of March, who protected him till he could be conveyed by sea to England, where he met with a more horrible death than if he had been killed in battle. Such was the decisive victory of Bannockburn, the greatest defeat the English ever sustained from the Scots. On the side of the latter no persons of note were slain, except Sir William Vipont and Sir Walter Ross, the favorite of Edward Bruce; and so grievously was Edward afflicted by the death of this man, that he exclaimed, 'O that this day's work were undone, so Ross had not died!' On the English side were slain twenty-seven barons and bannerets, and twenty-two taken prisoners; of knights there were killed forty-three, and sixty taken prisoners; of esquires there fell 700; but the number of the common men who were killed or taken was never known with any certainty. See **BANNOCK-BURN**. The Welsh who had served in the English army were scattered over the country, and cruelly butchered by the Scottish peasants; the English, who had taken refuge among the tocks in the neighbourhood of Stirling, surrendered at discretion; the castle was surrendered, and the privy-seal of England fell into the hands of the king of Scots. The spoils of the English camp were immense, and, along with the ransom of the many noble prisoners who fell into their hands, greatly enriched the conquerors. Robert showed much generosity in his treatment of the prisoners. He set at liberty Ralph de Monthermer and Sir Marmaduke Twerge, two officers of high rank, without ransom; and by humane and generous offices alleviated the misfortunes of the rest. The dead bodies of the earl of Gloucester and lord Clifford were sent to England, that they might be interred by their friends. There was one Bastan, a Carmelite friar and poet, whom Edward is said to have brought with him in his train, to be spectator of his achievements, and to record his triumphs. Bastan was made prisoner, and obliged to celebrate the victory of Robert over the English. This he did in wretched Latin rhymes, which, however, procured his liberty. After the battle of Bannockburn, the earl of Hereford retreated to the castle of Bothwell, where he was besieged

by Edward Bruce, and soon obliged to surrender. He was exchanged for the wife, sister, and daughter of the king, the young earl of Mar, and the bishop of Glasgow.

The terror of the English after the defeat at Bannockburn is almost incredible. Walsingham asserts that many of them revolted to the Scots and assisted them in plundering their own country. 'The English,' says he, 'were so bereaved of their wonted intrepidity, that 100 of that nation would have fled from two or three Scotchmen.' Edward Bruce and Douglas entered England on the east side, ravaged Northumberland, and laid the bishopric of Durham under contribution. Thence they proceeded to Richmond, laid Appleby and some other towns in ashes, and returned home laden with plunder. Edward summoned a parliament at York, to concert means for the public security; and appointed the earl of Pembroke to be guardian of the country between the Trent and the Tweed. Robert, however, sent ambassadors to treat of peace; but the Scots were too much elated with their good fortune to make concessions, and the English were not yet sufficiently humbled to yield to all their demands. The ravages of war were renewed, and the Scots continued their incursions into England, and levied contributions in different places. In 1315 the English affairs seemed to revive. The Scots indeed plundered Durham and Hartlepool; but they were repulsed from Carlisle, and failed in an attempt on Berwick. The Irish of Ulster, oppressed by the English government, implored the assistance of Robert, and offered to acknowledge his brother Edward as their sovereign; who accordingly landed at Carrickfergus on the 25th of May, 1315, with 6000 men. This was an enterprise evidently beyond the power of Scotland to accomplish. However, there were motives which induced Robert to consent. The offer of a crown inflamed the ambition of Edward Bruce, whose impetuous valor made no account of difficulties, however great. It might have been deemed ungenerous, and perhaps impolitic, to have rejected the proposals of the Irish for the advancement of his brother, to whom the king owed more than he could repay. Besides, the invasion of Ireland seemed a proper expedient for dividing the English forces. But the issue proved unfortunate. The king himself had gone over into Ireland, to assist his brother in attempting the subjection of that country; and during his absence the English had made several attempts to disturb the tranquillity of Scotland. The earl of Arundel invaded the forest of Jedburgh with a numerous army; but, being drawn into an ambuscade by Douglas, he was defeated with great loss. Edmund de Caillaud, a knight of Gascony and governor of Berwick, invaded and wasted Teviotdale; but, while he was returning home, loaded with spoil, he was attacked, defeated, and killed by Douglas. Soon after this intelligence was conveyed to Douglas that one Robert Neville had boasted that he would encounter him whenever he saw his banner displayed. Douglas soon gave him an opportunity. He advanced towards Berwick, displayed his banner and burnt some villages. Neville, provoked a

these ravages, took the field, encountered Douglas, was defeated and killed. By sea the English invaded Scotland, and anchored off Inverkeithing in the frith of Forth, where they soon after landed; 500 men, under the earl and sheriff of Fife, attempted to oppose their landing, but were intimidated by the number of their enemies. William Sinclair, bishop of Dunkeld, happened to meet the fugitives; and having, by his reproaches, obliged them to rally, he led them on again to the charge, and drove the English to their ships with considerable loss. For this exploit Robert conferred the title of the king's bishop on Sinclair; and he was long venerated by his countrymen on this account. In 1317, after king Robert had returned from his Irish expedition, a bull was issued by pope John XXII. commanding a two years' truce between England and Scotland, under pain of excommunication. Two cardinals were sent into Britain to make known his commands; and they were empowered to inflict the highest spiritual censures on Robert Bruce, or whomsoever else they thought proper. About the beginning of September 1317 two messengers were sent to Robert by the cardinals. The king gave them a gracious reception; and, after consulting with his barons, answered that he very much desired a perpetual peace, by the mediation of the cardinals, or any means. He allowed the open letters from the pope, which recommended peace, to be read in his presence, and listened to them with due respect; but he would not receive the sealed letters addressed to Robert Bruce, governor of Scotland, alleging that there might be many of his barons whose names were Robert Bruce, and that these barons might have some share in the government. Unless, therefore, the letters were addressed to him as king of Scotland, he could not receive them without advice of his parliament, which he promised immediately to assemble on the occasion. The messengers attempted to apologise for the omission of the title of king. 'The holy church was not wont,' they said, 'during the dependence of a controversy, to write or say any thing which might be interpreted as prejudicial to the claims of either of the contending parties.' 'Since then,' answered the king, 'my spiritual father and my holy mother would not prejudice the cause of my adversary, by bestowing on me the appellation of king during the dependence of the controversy, they ought not to have prejudiced my cause by withdrawing that appellation from me. I am in possession of the kingdom of Scotland; all my people call me king; and foreign princes address me under that title; but it seems that my parents are partial to their English son. Had you presumed to present letters with such an address to any other sovereign prince, you might perhaps have been answered in a harsher style; but I reverence you as the messengers of the holy see.' The messengers, quite abashed with this reply, requested that he would consent to a temporary cessation of hostilities; but to this he declared that he never would consent, while the English daily invaded and plundered his people. His counsellors told the messengers that the disrespectful omission was owing to the intrigues of

the English at the court of Rome, and hinted that they had received this intelligence from Avignon. When the messengers had informed the cardinals of these proceedings, the latter determined to proclaim the papal truce in Scotland; in which hazardous office they employed Adam Newton, guardian of the monastery of Minorities at Berwick, who was charged with letters to the clergy of Scotland, particularly to the bishop of St. Andrew's. The monk found the king encamped with his army in a wood near Old Cambus, making preparations for assaulting Berwick. Personal access was denied to the king; but the monk proclaimed the truce by the authority of the pope. The king sent him for answer that he would listen to no bulls till he was treated as king of Scotland, and had made himself master of Berwick. The monk, terrified at this answer, requested either a safe conduct to Berwick, or permission to pass into Scotland, and deliver his letters to the Scottish clergy. Both were refused; and he was commanded to leave the country instantly. He set out for Berwick, but in his way thither was attacked by robbers, or some who pretended to be so. By them he was stripped and robbed of all his parchments, together with his letters and instructions; the robbers also tore the pope's bull. In 1318 king Robert proceeded in his enterprize against Berwick. A citizen of Berwick, named Spalding, having been ill used by the governor, resolved to revenge himself; and therefore wrote a letter to a Scottish lord, whose relation he had married, offering on a certain night to betray the town. The nobleman communicated this important intelligence to the king, who commanded him to repair to a certain place with a body of troops; to which place he also gave separate orders to Douglas and Randolph to repair at the same hour, each with a body of troops under his command. The forces, thus cautiously assembled, marched to Berwick, and, assisted by Spalding, scaled the walls, making themselves masters of the place in a few hours. The garrison of the castle, perceiving that the number of Scots was but small, made a desperate sally with the men who had fled into the castle from the town; but, after an obstinate conflict, they were defeated and driven back, chiefly by the extraordinary valor of a young knight, named Sir William Keith, of Galston, on the 28th March 1318. King Robert no sooner heard of the success of his forces against the town than he hastened to lay siege to the castle of Berwick, which was soon obliged to capitulate; after which the Scots entered Northumberland, and took the castles of Wark, Harbottle, and Mitford.

In May 1318 they again invaded England, and penetrated into Yorkshire, burning, in their progress, the towns of Northallerton, Boroughbridge, Scarborough, and Skipton in Craven, and forcing the inhabitants of Rippon to redeem themselves by paying 1000 merks; after which they returned to Scotland with much booty; and, as an English historian expresses it, 'driving their prisoners before them like flocks of sheep.' This year the interposition of the pope was again obtained against Robert; and the two cardinals residing in England were commanded to excom-

municate Robert Bruce and his adherents, on account of his treatment of the messengers of the holy see, and his assault of Berwick, after a truce had been proclaimed by the papal authority. This sentence was accordingly put in execution: and, on messengers being sent from Scotland to Rome, to procure a reversal of the sentence, Edward despatched the bishop of Hereford, and Hugh d'Espencer the elder, to inform his holiness of certain intercepted letters which had been written from Avignon to Scotland; upon which the pope ordered all the Scots residing at Avignon, and all of that place who had corresponded with Scotland, to be taken into custody. The most remarkable transaction of this year, however, was the defeat and death of Edward Bruce in Ireland. His body was quartered, and distributed for a public spectacle over that country: his head was presented to Edward by John lord Birmingham, the commander of the English army. In the mean time Edward, who had summoned a parliament to meet at Lincoln, was obliged to prorogue it on account of the Scottish invasion, and to assemble an army at York for the defence of England. At Michaelmas it was determined, in a parliament held at London, that every city and town in England should furnish a certain proportion of men completely armed. Thus a considerable body of troops was raised; but, when they assembled at York, their party animosities and mutual distrust rose to such a height that a considerable number of them were sent back to their habitations. In 1319 Edward, having succeeded so well with the court of Rome, made similar attempts with other powers, to the prejudice of the Scottish nation. Accordingly he requested the earl of Flanders to prohibit the Scots from entering his country; but to this request he received for reply, that 'Flanders was the common country of all men; I cannot prohibit any merchants from trafficking thither,' said the earl, 'for such prohibition would prove the ruin of my people.' Edward, on this, once more determined to have recourse to war; and with this view commanded his army to assemble at Newcastle-upon-Tyne, on the 24th of July 1319; but first requested the prayers of the clergy for success, and demanded from them a sum of money by way of loan. Every thing being now in readiness, the English army approached Berwick, then under the care of Walter, grand steward of Scotland. This nobleman had long apprehended an attack from the English, and had taken his means of defence accordingly. The English however, confiding in their numbers, made a general assault; but were repulsed on the 7th September, after an obstinate contest. Their next attempt was on the side towards the river. At that time the walls of Berwick were of inconsiderable height; and it was proposed to bring a vessel close to them, whence the troops might enter by a drawbridge. But the Scots annoyed the assailants so much that they could not bring this vessel within the proper distance; and at the ebb of the tide it grounded, and was burnt. The English had then recourse to a new-invented engine which they called a sow. In many particulars it resembled the testudo arietaria of the ancients. It was a large fabric of timber

well-roofed, having stages within it, and in height surpassing the wall of the town. It was moved upon wheels, and served for the double purpose of conducting the miners to the foot of the wall, and armed men to the storm. But this machine was counteracted by one constructed by John Crab, a Flemish engineer. This was a kind of moveable crane, by which great stones might be raised, and then let fall upon the enemy. The English made a general assault on the quarter towards the sea, as well as on the land side; so that the garrison, exhausted by continual fatigue, could scarcely maintain their posts. The great engine moved on to the walls: at length a huge stone struck it with such force that the beams gave way, and, the Scots pouring down combustibles upon it, it was burnt. The English, however, still continued the attack. The steward, with a reserve of 100 men, went from post to post, relieving those who were wounded or unfit for combat. One soldier of the reserve only remained with him when an alarm was given that the English had burnt a barrier at the port called St. Mary's, possessed themselves of the drawbridge, and fired the gate. The steward hastened thither, called down the guard from the rampart, ordered the gate to be set open, and rushed out upon the enemy. A desperate combat ensued, and continued till the close of the day, when the English commanders withdrew their troops. Notwithstanding this brave defence, it was evident that the town could not hold out long; and Robert could not, with any probability of success, attack the fortified camp of the English. He therefore determined to make a powerful diversion in England. By order of the king 15,000 men entered England by the western marches, and laid waste Yorkshire. The archbishop of York hastily collected a numerous body of commons and ecclesiastics, with whom he encountered the Scots at Mitton, near Borough-Bridge, in the North Riding of Yorkshire: but the English were instantly routed, and 3000 left dead on the field: a great part of those who fled perished in the river Swale. In this action 300 ecclesiastics are said to have lost their lives.

The news of this successful inroad alarmed the besiegers of Berwick. The barons whose estates lay to the southward remote from the Scottish depredations were eager for continuing the siege. But they were opposed by those of the north; who were no less eager to abandon the enterprise, and return to the defence of their own country. With them the earl of Lancaster concurred in opinion; who, understanding that his favorite manor of Pontefract was exposed to the ravages of the Scots, departed with all his adherents. Edward, upon this, drew off the remainder of his army, and attempted to intercept Randolph and Douglas; but they eluded him, and returned in safety to Scotland. The failure of this last attempt induced Edward seriously to think of peace; and accordingly a truce was concluded on the 21st of December 1319; which interval of tranquillity the Scots made use of to address a manifesto to the pope. This was drawn up in a spirited manner, and made a very considerable impression in the

councils of the pontiff. The pope, seeing that Robert would not be terrified into submission, ordered Edward to make peace with him in the best manner he could. A negotiation was accordingly set on foot, which soon terminated ineffectually; the truce was not renewed, and in 1322 a mutual invasion took place. The Scots penetrated into Lancashire by the western marches; and, after plundering the country, returned home with an immense booty; while Edward made great preparations for an expedition into Scotland, which took place in August. In this, however, he was unsuccessful. Robert had caused all the cattle to be driven off, and all the effects of value to be removed; fixing his camp at Culross, on the north side of the Frith of Forth. His orders for removing the cattle were so punctually obeyed that the only prey which fell into the hands of the English was a single lame bull. Edward, however, penetrated nearly as far as Edinburgh; but, his provisions being consumed, many of his soldiers perished for want, and he was obliged at last to retire. On their return, his soldiers burnt the abbeys of Holyrood, Melrose, Dryburgh, &c., and killed many of the monks; but, when they returned to England, and again enjoyed a plentiful living, they indulged in such excesses as were productive of a great mortality. One English historian says, almost one-half of the great army which Edward had brought from England with him were destroyed either by hunger or gluttony. As soon as the English retired, they were pursued by the Scots, who laid siege to the castle of Norham. Edward lay at the abbey of Biland in Yorkshire, with a body of troops advantageously posted near. The Scots attempted to surprise the king, and it was with the utmost difficulty that he escaped to York, leaving to the enemy all his baggage and treasure. The English camp was supposed to be accessible only by a narrow pass, but Douglas undertook to force it, and Randolph presented himself as a volunteer in this dangerous service, under his friend Douglas. The Highlanders and men of the Isles climbed the precipice on which the English camp stood, and the enemy were driven out with great loss. The Scots pursued them to the gates of York, wasted the country without control, and returned home unmolested. Edward, disheartened by repeated losses, agreed to a cessation of arms, from the 30th of March 1323, until the 12th of June 1336. It was stipulated that, during its continuance, no new fortresses should be erected in Cumberland, north of the Tyne, or in the counties of Berwick, Roxburgh, or Dumfries; and by a singular article it was provided that, 'Bruce and the people of Scotland might procure absolution from the pope; but, in case there was no peace concluded before the expiration of the truce, that the sentence of excommunication should revive.' The treaty was ratified by Robert, as king of Scotland, 7th of June 1323. Robert's next care was to reconcile himself to the church, and to obtain from the pope the title of king, which had been so long denied him; this at last, with difficulty, was obtained. A son was born this year to the king of Scotland at Dunfermline, and named David.

But scarcely had this future hero come into the world, when a rival began to appear. John Baliol had long been dead; but left a son named Edward, heir to his pretensions. The young prince had resided on his paternal estate in Normandy, neglected and forgotten; but in 1324 was called to the court of England, for the purpose of setting him up as a rival to young David Bruce. The negotiations for peace, however, still went on; but the commissioners made little progress, by reason of the demands for feudal sovereignty still made by the English. The reconciliation with the church was also broken off, by the Scots keeping possession of Berwick. This had been taken during the papal truce; and Robert chose still to lie under the sentence of excommunication rather than to part with such an important fortress.

In the beginning of 1327 Edward II. was deposed and barbarously murdered. He was succeeded by his son Edward III., then in his fifteenth year, who renewed the negotiations for peace, and ratified the truce which his father had made; but hearing that the Scots had resolved to invade England, if a peace was not immediately concluded, he summoned his barons to meet him in arms at Newcastle, and fortified York. We are not informed why the Scots at this time disregarded the truce; however, on the 15th of June 1327, Douglas and Randolph invaded England by the western marches, with an army of 20,000 horsemen. Against them Edward led an army, consisting at the lowest calculation of 30,000 men, who assembled at Durham on the 13th of July. The Scots proceeded with the utmost cruelty, burning and destroying every thing as they went along; and on the 18th of the same month the English discovered them by the smoke and flames which marked their progress. They marched forward in order of battle towards the quarter where the smoke was perceived; but, meeting with no enemy for two days, they concluded that the Scots had retired. Disencumbering themselves then of their heavy baggage, they resolved by a forced march to reach the river Tyne, and, by posting themselves on the north bank, to intercept the enemy on his return. On the 20th of July the cavalry, having left the infantry behind, crossed the river at Halydon: but, before the rest of the army could come up, the river was so swelled by sudden rains that it could no longer be forded; thus the English troops remained divided for several days, without any accommodation for quarters, and in the greatest want of provisions and forage. The soldiers now began to murmur; and it was resolved again to proceed southwards. The king proclaimed a reward of lands, to the value of £100 yearly for life, to the person who should first discover the enemy 'on dry ground, where they might be attacked;' and many knights and esquires swam across the river on this strange errand. The army continued its march for three days without any news of the Scots; but on the fourth accounts of them were brought by Thomas Rokesby, esq., who reported that, 'the Scots had made him prisoner; but that their leaders understanding his business had set him at liberty; saying, that they had remain-

ed for eight days on the same ground, as ignorant of the motions of the English as the English were of theirs, and that they were desirous and ready to combat.' With this man for their guide, the English soon came in view of the Scots. They were advantageously posted on a rising ground, having the river Wre in front, and their flanks secured by rocks and precipices. The English dismounted and advanced, hoping to allure the Scots from their strong post; but in vain. Edward then sent a herald to Randolph and Douglas, with a message in the style of chivalry: 'Either,' says he, 'suffer me to pass the river, and leave me room for ranging my forces; or do you pass the river, and I will leave you room to range yours; and thus shall we fight on equal terms.' To this the Scottish commanders answered, 'We will do neither. On our road hither we have burnt and spoiled the country; and here we are fixed while to us it seems good, if the king of England is offended, let him come over and chastise us.' The armies continued in sight of each other for two days; after which the English, understanding that their enemies were distressed for provisions, resolved to maintain a close blockade, and to reduce them by famine. Next day, however, they were surprised to find that the Scots had secretly decamped, and taken post two miles up the river in ground still stronger, and of more difficult access. The English encamped opposite to them near Stanhope park. At midnight Douglas undertook a most desperate enterprise. With 200 horsemen he approached the English camp, and entered it under the guise of a chief commander calling the rounds. Having thus eluded the sentinels, he passed on to the royal quarters, overthrew every thing that opposed him, and furiously assaulted the king's tent. The domestics of Edward desperately defended their master; and his chaplain with many others of his household were slain. However, the king himself escaped; and Douglas, disappointed of his prey, rushed through the enemy, and effected a retreat with inconsiderable loss. The following day the English learned from a prisoner that orders had been issued in the Scottish camp for all men to hold themselves in readiness that evening to follow the banner of Douglas; on which, apprehending an attack in the night, they prepared for battle, lighting great fires, and keeping a strict watch; but in the morning they were informed by two trumpeters, whom they had taken prisoners, that the Scots had decamped before midnight, and were returning to their own country. This report they could scarcely credit, and the army remained for some hours in order of battle: but at length some scouts, having crossed the river, returned with certain intelligence that the Scottish camp was deserted: which, when Edward was assured of, he burst into tears; for the enterprise, which thus terminated in disappointment and dishonor, had cost an immense sum. His foreign auxiliaries in particular consisted of heavy-armed cavalry; and they were now so much worn out that they could scarcely move: the few living horses were become unserviceable, in a campaign of three weeks; so that they were obliged to procure horses to convey

them to the south of England. Edward, having rested at Durham for some days, marched to York, where he disbanded his army. Barbour, a Scottish historian, relates that there was a morass in the rear of the Scottish camp, which he calls the two mile morass; that the Scots made a way over it with brushwood, removing it as they went along, that the English might not pursue them by the same way. The English narratives are filled with descriptions of the strange appearance of the deserted camp of the Scots. Their pursuers found, we are told, a number of skins stretched between stakes, which served for kettles to boil their meat; and for bread each soldier carried along with him a bag of oatmeal, of which he made cakes, toasting them upon thin iron plates, which appear to have been part of their armour. On the return of Douglas and Randolph, the king led his army against the eastern borders, and besieged the castle of Northampton. However, in 1328, Edward, wearied out with continued losses and disappointments, consented to a perpetual peace between the two kingdoms on the condition—1. That the stone on which the kings of Scotland were wont to sit at the time of their coronation, should be restored to the Scots. 2. The king of England engaged to employ his good offices at the papal court for obtaining a revocation of all spiritual processes depending before the holy see against the king of Scots, or against his kingdom. 3. For these causes, and to make reparation for the ravages committed in England by the Scots, the king of Scots was to pay 30,000 merks to the king of England. 4. Restitution was to be made of the possessions belonging to ecclesiastics in either kingdom, whereof the war might have deprived them. 5. But there was not to be any restitution made of inheritances which had fallen into the hands of the king of England or of the king of Scots, by reason of the war between the two nations, or through the forfeiture of former possessors. 6. Joanna, sister of the king of England, was to be given in marriage to David, the son and heir to the king of Scots; the king of Scots providing the princess in a jointure of £2000 yearly, secured on lands and rents. 7. If either of the parties failed, in performing these conditions, he was to pay £2000 of silver to the papal treasury. This peace, ratified at Northampton, is styled ignominious by the English historians, and the marriage of the Scottish prince to the king of England's sister, that base marriage; because thus all pretensions to sovereignty over Scotland were given up. The marriage of the infant prince was celebrated on the 12th of July 1328. On the 7th of June, 1329, died Robert Bruce, unquestionably the greatest of the Scottish monarchs. His death seems to have been occasioned by the excessive fatigues of military service; and his disease, called by historians of those times a leprosy, was probably an inveterate scurvy, occasioned by his mode of living. He died at the age of fifty-five. He was married to Isabella, daughter of Donald the tenth earl of Mar; by whom he had a daughter named Marjory, married to Walter, the grand steward of Scotland; whose husband died in 1326. The second wife of Robert was Eliza-

beth, the daughter of Aymer de Burgh, earl of Ulster. By her he had a son, David II.; a daughter named Margaret, married to William earl of Sutherland; another, named Matilda, married to Thomas Isaac, esq.; and Elizabeth, married to Sir Walter Oliphant of Gask. He had also a natural son named Robert. That king Robert I. was a man of unquestionable virtue and humanity, as well as unequalled in the knowledge of the military art, is evident from many particulars already related. The only questionable part of his character is his severe punishment of a conspiracy formed against him in 1320; a relation of which, to avoid interrupting our detail of more important matters, we deferred till now.—The chief of the conspirators were William de Soulis, whose ancestor had been a candidate for the crown; the countess of Strathern, and some other persons of rank. The countess discovered the plot; after which Soulis confessed the whole, and was punished with perpetual imprisonment; as well as the countess, notwithstanding her having made the discovery. Gilbert de Malyerb and John de Logie, both knights, and Richard Brown, esq., were put to death as traitors: but the person most lamented was Sir David de Brechin, for his bravery styled the flower of chivalry. He was nephew to the king, and had served with great reputation against the Saracens. To him the conspirators, after having exacted an oath of secrecy, revealed their designs. He condemned their undertaking, and refused to share in it; but did not discover it, on account of the oath he had taken. Yet for this concealment he was tried as a traitor, condemned and executed, without regard to his personal merit or his relation to the king. The conspirators were tried before the parliament at Scone in 1320; and this session, in which so much blood was shed, was long remembered under the name of the black parliament.

After the death of Robert I. the administration was assumed by Randolph, in consequence of an act passed in 1318, by which he was appointed regent in case of the king's death. In his new character he behaved himself in a most exemplary manner: and by impartially discharging the duties of his station, and rigidly administering justice, he secured most perfectly the public tranquillity. The severe exercise of justice was now rendered not only necessary but indispensable. During a long course of war, the people had been accustomed to plunder and bloodshed; and, having now no English enemies to employ them, they robbed and murdered one another. Randolph repressed these crimes by making the counties liable for the robberies committed within their bounds. He gave orders for severely punishing all vagabonds, and obliged them to work for their livelihood; making proclamation that no man should be admitted into any town or borough, who could not earn his bread by his labor. These regulations were attended with the most salutary effects. A fellow who had secreted his own plough irons, pretending that they were stolen, being detected by the sheriff's officers, was instantly hanged. A certain man, having killed a priest, went to Rome, and obtained absolution from the pope;

after which he boldly returned to Scotland. Randolph ordered him to be tried, and, on his conviction, to be executed: 'because,' said he, 'although the pope may grant absolution from the spiritual consequence of sin, he cannot screen offenders from civil punishment.' King Robert, just before his death, had desired that his heart might be deposited in our Saviour's sepulchre at Jerusalem; and on this errand the great commander, Douglas, was employed, who set sail in June, 1330, with a numerous and splendid retinue. He anchored off Sluys in Flanders, the great emporium of the Netherlands, where he expected to find companions in his pilgrimage; but, learning that Alphonso XI. the young king of Leon and Castile, was engaged in a war with Osmyn the Moor, he could not resist the temptation of fighting against the enemies of Christianity. He met with an honorable reception at the court of Spain, and readily obtained leave to enter into what was thought the common cause of Christianity. The Moors were defeated; but Douglas, giving way to his impetuous valor, pursued the enemy too eagerly, and, throwing among them the casket which contained the heart of his sovereign, cried out, 'Now pass thou onward as thou wast wont; Douglas will follow thee or die.' The fugitives rallied and surrounded Douglas; who, with a few of his followers, was killed in attempting to rescue Sir Walter St. Clair of Roslin. His body was brought back to Scotland, and interred in the church of Douglas. His countrymen styled him the good Sir James Douglas. He was one of the greatest commanders of the age; and is said to have been engaged in seventy battles, fifty-seven of which he gained, and was defeated in thirteen.

In November 1331 Edward Baliol began to renew his pretensions to the crown of Scotland, about the time that David II. and his consort Johanna were crowned at Scone. This year differences began also to arise with England. It had been provided, by an article of the treaty of Northampton, that 'Thomas lord Wake of Ledel, Henry de Beaumont, called earl of Buchan, and Henry de Percy, should be restored to their estates, of which the king of Scots, by reason of the war between the two nations, had taken possession.' This article had been executed with respect to Percy, but not to the other two; and, though Edward had repeatedly complained of this neglect, he obtained no satisfaction. Lord Hales has some judicious remarks on this omission, which he ascribes to the political foresight of Randolph. The disinherited barons now resolved to invade Scotland, though their force consisted of only 3000 infantry, and 400 men at arms. Edward would not permit them to enter Scotland by the usual way, as he himself did not yet choose openly to take part in their quarrel. They were therefore obliged to take shipping, and landed at a place called Ravenspur, or Ravensburgh, at the mouth of the Humber, long ago overwhelmed by the sea. Randolph, having intelligence of the English preparations, had marched an army to the frontiers of East Lothian; but, being afterwards informed of the naval armament, he marched northwards; but died at Musselburgh, on the 20th of July 1332.

Donald, earl of Marr, a man whose only merit consisted in his being related to the royal family, was chosen to succeed him in the regency. Edward, in the mean time, fell upon a most curious expedient to show the justice of his cause. In March 1332 he had published a prohibition for any person to infringe the treaty of Northampton: yet the disinherited lords had been suffered to embark, expressly for the purpose of invading Scotland, after this prohibition was published. After they were gone, Henry de Percy was empowered to punish those who should presume to array themselves in contempt of his prohibition; and because he understood that the Scots were arming, in order to repel those invaders whom Edward had indirectly sent against them, he empowered Henry de Percy to arm against them. On the 31st of July Edward Baliol and his associates landed in the neighbourhood of Kinghorn, on the Forth; routed the earl of Fife, who opposed them; and marched next day to Dunfermline. Having then ordered his fleet to wait for him at the mouth of the Tay, he proceeded northwards, and encamped on the Miller's acre at Forteviot, with the river Earn in front. Here his situation was extremely dangerous, and his destruction seemed inevitable. The earl of Marr was encamped with a numerous army on the opposite bank of the river Earn, near Duplin; and another, nearly as numerous, had advanced from the south, through the Lothians and Stirlingshire, and fixed its quarters at Auchterarder, eight miles west of Forteviot. Historians differ as to the number of the two armies. Fordun says that the regent had with him 30,000 men, and the earl of March as many; and that Baliol had between 500 and 600 men at arms, that is, horsemen completely armed. Hemingford reckons each of the Scottish armies at 40,000, and Baliol's at 500 armed men. Knyghton says that Baliol, when he landed in Fife, had 300 armed men, and 3000 more of different sorts; but that he had in all only 2500 men in his camp at Earn. In this desperate situation the English general formed a design of attacking the Scots in their camp. They were directed to a ford by Andrew Murray of Tullibardine. The Scots kept no watch, but abandoned themselves to intemperance and riotous mirth; while their enemies, led by Alexander Mowbray, crossed the river at midnight. Ascending a rising ground, they came unperceived on the right flank of the Scottish army, and made a dreadful slaughter. At the first attack, young Randolph hasted with 300 men at arms to oppose the enemy; and being seconded by Murdoch earl of Monteith, Alexander Fraser, and Robert Bruce, natural son to the late king, he gave a check to the English, and maintained the combat on equal terms. But now the regent himself, along with the whole multitude, rushed forward to battle without the least order; so that, while the hindmost pressed on, the foremost were thrown down and trodden upon. The slaughter lasted many hours, and the remains of this vast army were utterly dispersed. Many men of eminence were killed; among whom were Donald earl of Marr, author of the whole catastrophe; Thomas earl of Moray, Murdoch earl of Monteith Robert earl of Carrick,

Alexander Fraser, and Robert Bruce. The slaughter of the infantry and of the men at arms was very great; and the most probable accounts make it 2000 men at arms, and upwards of 13,000 common soldiers. The loss of the English was inconsiderable. The day after this victory, Baliol took possession of Perth; and, apprehending an attack from the earl of March, caused the ditch to be cleared, and the town to be fortified with palisadoes. The first information which the earl received of this dreadful defeat was from a soldier, who fled mortally wounded, and had time only to show his wounds, and expire. The earl, on his arrival at the field of battle, found a dreadful confirmation of the soldier's intelligence; but, instead of taking any proper measures, he and his men hurried on headlong to Perth, actuated only by a blind impulse to revenge. At first they designed to assault the place; next they determined to reduce it by famine. This, however, could not be done unless the Scots had been masters at sea. One John Crab, a Flemish engineer (who had distinguished himself by destroying the famous engine called the sow at the siege of Berwick), had continued for many years to annoy the English on the eastern coasts. After the blockade of Perth was formed, he came with ten vessels to the mouth of the Tay, where the English fleet was, and took the ship belonging to Henry de Beaumont; but soon after all his ten vessels were burnt by the English in a general engagement. After this the blockade of Perth was raised, the earl of March disbanded his army, and Edward Baliol was crowned king of Scotland at Scone, on the 24th of September 1332.

The new monarch was no sooner put in possession of the kingdom than he left Perth in the hands of the earl of Fife, while he himself repaired to the southern parts of the kingdom. But the party of king David was far from being extinguished. Baliol was scarcely gone, when Perth was surprised, and its fortifications razed, by James Fraser, Simon Fraser, and Robert Keith. The earl of Fife was made prisoner, with his family and vassals. Andrew Murray of Tullibardine, who had directed the English to a ford on the Earn, was put to death as a traitor. Such of the Scots as still adhered to the interest of their infant prince chose Sir Andrew Murray of Bothwell regent. He was a brave and active man, but had not as yet sufficient force to attempt any thing considerable. In the mean time, Baliol behaved in a most scandalous manner. At Roxburgh, he made a solemn surrender of the liberties of Scotland; acknowledged Edward for his liege lord; and became bound to put him in possession of the town, castle, and territory of Berwick, and of other lands on the marches, extending in all to the yearly value of £2000, 'on account,' as the instrument bears, 'of the great honor and emoluments which we have procured through the sufferance of our lord the king, and by the powerful and acceptable aid which we have received from his good subjects.' He also proffered to marry the princess Johanna, whom he considered as only betrothed to David Bruce, and to add £500 to her jointure; and this under the penalty of £10,000 to be appro-

priated as a portion to the lady, or otherwise disposed of for her behoof. He farther engaged to provide for the maintenance of David Bruce as the king of England should advise; and, lastly, he became bound to serve Edward in all his wars, excepting in England, Wales, and Ireland, for the space of a year together, with 200 men at arms. Afterwards, Edward having engaged to maintain him on the throne of Scotland, Baliol bound himself to serve him in all his wars whatever. Though the greatest part of the nation submitted to this shameful treaty, it roused the indignation of those who wished well to their country. John, the second son of Randolph, now earl of Moray by the death of his brother; Archibald, the youngest brother of the renowned Douglas; together with Simon Fraser, assembled a body of horsemen at Moffat in Annandale; and, suddenly traversing the country, assaulted Baliol unexpectedly at Annan. His brother Henry made a gallant resistance for some time; but was at last overpowered with numbers, and killed, with several other persons of distinction. Baliol himself escaped almost naked, with scarcely a single attendant, and fled to England. After his departure, the Scots began to make depredations on the English frontiers. Edward issued a proclamation, in which he solemnly averred that the Scots, by their hostile depredations, had violated the peace of Northampton. Baliol, in the meantime, being joined by some English barons, returned to Scotland; took and burnt a castle where Robert de Colville commanded; and, establishing his quarters in the neighbourhood of Roxburgh, began to make preparations for besieging Berwick. Just after his arrival, Archibald Douglas, with 3000 men, invaded England by the western marches, plundered the country, and carried off much booty; in revenge for which, Sir Anthony de Lucy made an inroad into Scotland, defeated and took prisoner Sir William Douglas, celebrated in history by the appellation of the knight of Liddesdale, whom Edward caused to be put in irons. About the same time, Sir Andrew Murray the regent attacked Baliol, with a view to discomfit him before the reinforcements which he expected out of England could arrive. A sharp conflict ensued at Roxburgh, in which the regent, attempting to rescue a soldier, was taken prisoner; and thus Scotland was at once deprived of its two ablest commanders. Archibald Douglas was now declared regent; and Edward prepared to invade Scotland. He ordered possession to be taken of the Isle of Man in his own name; and soon after made it over to Sir William Montague, who had some claim of inheritance in it. The chief design of Edward, however, was to obtain possession of Berwick, which had been ceded to him by Baliol. This appeared to the Scots a place of no less importance than it did to Edward; and therefore they took all the precautions in their power to prevent the loss of it. The earl of March was appointed to command the castle, and Sir William Keith the town. The Scots made an obstinate defence. At length the regent, with a numerous army, appeared in the neighbourhood. He endeavoured to convey succors into the town, or to provoke the enemies to quit the ad-

vantage of the ground, and engage in battle. But all his efforts were in vain; the English obstructed every passage, and stood on the defensive. The regent then entered Northumberland, wasted the country, and even assaulted Bamborough castle, where Philippa the young queen of England resided. He fondly imagined that Edward III. would have abandoned the siege of Berwick, as his father did, in similar circumstances. Edward nevertheless persevered in his enterprise. During a general assault, the town was set on fire, and great part of it consumed. The inhabitants having experienced the evils of a siege, and dreading the worse evils of a storm, implored the earl of March and Sir William Keith to seek terms of capitulation. A truce was obtained; and it was agreed that the town and castle should be delivered up on terms fair and honorable, unless succors arrived before the hour of vespers on the 19th of July. By the treaty, Sir William Keith was allowed an interview with the regent. He found him with his army in Northumberland; urged the necessity of his return; and showed him that Berwick, if not instantly relieved, was lost for ever. Persuaded by his importunities, the regent resolved to combat the English, and either to save Berwick or lose the kingdom. On the afternoon of the 19th of July the regent prepared for battle. He divided his army into four bodies. The first was led by John earl of Moray, the son of Randolph; but, as he was young and inexperienced in war, James and Simon Fraser, soldiers of approved reputation, were joined with him in the command. The second body was led by the steward of Scotland, a youth of sixteen, under the inspection of his uncle Sir James Stewart of Rosyth. The third body was led by the regent himself, having with him the earl of Carrick and other barons of eminence. The fourth body, or reserve, appears to have been led by Hugh earl of Ross. The numbers of the Scottish army on that day are variously reported by historians. The continuator of Hemingford says, that, besides earls and other lords or other great barons, there were fifty-five knights, 1100 men at arms, and 13,500 of the commons lightly armed, amounting in all to 14,655. With him Knyghton concurs, when his narrative is cleared from the errors of transcribers. The English were advantageously posted on a rising ground at Halydon, with a marshy hollow in their front. Baliol had the command of one of the wings. It had been provided by the treaty of capitulation 'That Berwick should be considered as relieved, in case 200 men at arms forced their passage into the town.' This the Scottish men at arms attempted; but Edward, aware of their purpose, opposed them in person, and repulsed them with great slaughter. The Scottish army rushed on to a general attack; but they had to descend into the marshy hollow before mounting the eminences of Halydon. After having struggled with the difficulties of the ground, and after having been incessantly galled by the English archers, they reached the enemy. Although fatigued and disordered, they fought as it became men who had conquered under Robert Bruce. The English, with equal valor, had great advan-

tages of situation, and were better disciplined. The earl of Ross led the reserve to attack in flank that wing where Baliol commanded; but he was repulsed and slain. There fell with him Kenneth earl of Sutherland, and Murdoch earl of Monteith. In the other parts of the field the events were equally disastrous. The regent received a mortal wound, and the Scots every where gave way. In the field, and during a pursuit for many miles, the number of slain and prisoners was so great, that few of the Scottish army escaped. Besides the earls of Ross, Sutherland, and Monteith, there were among the slain Malcolm earl of Lenox, an aged baron, who had been one of the foremost to repair to the standard of Robert Bruce, and whose exertions were for his country; Alexander Bruce earl of Carrick, who atoned for the short defection from the family of his benefactor; John Campbell earl of Athole, nephew of the late king; James Fraser, and Simon Fraser; John Graham, Alexander Lindesay, Alan Stewart, and many other persons of eminent rank. The Steward had two uncles, John and James. John was killed, and James mortally wounded and made prisoner. Two other Stewarts fought at this battle; viz. Alan of Dreghorn, paternal ancestor of king Charles I. and James of Rosyth, maternal ancestor of Oliver Cromwell. The regent, mortally wounded, and abandoned on the field of battle, only lived to see his army routed and himself a prisoner. This victory was obtained with very inconsiderable loss. The English historians say, that on their side there were killed one knight, one esquire, and twelve foot soldiers. Nor will this appear altogether incredible, as the English ranks remained unbroken, and their archers, at a secure distance, incessantly annoyed the Scottish infantry. According to capitulation, the town and castle of Berwick surrendered. The English king took twelve hostages for the fidelity of the citizens. Thus was the whole of Scotland reduced under the subjection of Baliol, excepting a few fortresses; so that it became necessary to provide for the safety of the young king and queen. Accordingly, they were conveyed to France, where they were honorably entertained. Meanwhile, Baliol employed himself in making new concessions to his liege lord Edward; and in 1334 the work of submission was completed by a solemn instrument drawn up by Baliol, in which he surrendered great part of the Scottish dominions, to be for ever annexed to the crown of England. In this instrument Baliol said, that 'he had formerly become bound to make a grant to Edward of lands on the marches, to the amount of £2000 lands; that the Scottish parliament had ratified his obligation; and that he had accordingly surrendered Berwick and its territory; and now, for completely discharging his obligation, he made an absolute surrender to the English crown of the forests of Jedburgh, Selkirk, and Etterick; of the counties of Roxburgh, Peebles, and Dumfries; together with the county of Edinburgh, and the constabularies of Linlithgow and Haddington.' This extraordinary surrender was made with so much precipitation, that Baliol forgot to except his own private estate out of it. This, however, was restored to

him by Edward. At the same time, Baliol did homage, and swore fealty, 'for the whole kingdom of Scotland and the isles adjacent.'

A quarrel now arose among the disinherited lords, to whom this revolution had been owing, which produced the worst consequences to the interest of Baliol. The brother of Alexander Mowbray died, leaving only daughters. Mowbray having claimed a preference to his nieces, Baliol put him in possession of the inheritance: when Henry Beaumont earl of Buchan, and David Strathbogie or Hastings, earl of Athol, espoused the cause of the ladies; but, perceiving that their solicitations were not heard, they left the court in disgust, and retired to their castles August 1334. Baliol soon perceived his error in offending these two powerful lords; and, to regain their favor, dismissed Mowbray, and conferred on David Strathbogie the whole estates of the young Steward of Scotland. Thus he alienated the affections of Mowbray, and added to the influence of the earl of Athol, who was by far too powerful before. About this time Sir Andrew Murray of Bothwell, having regained his freedom, began to assemble the friends of liberty, and was immediately joined by Mowbray. In a moment every thing was in confusion. Geoffrey Mowbray, governor of Roxburgh, revolted; Henry Beaumont was besieged in his castle of Dundare by Murray and Mowbray, and forced to surrender, but was allowed to depart into England. Richard Talbot, endeavouring to pass into England with a body of troops, was defeated and taken prisoner by Sir William Keith of Galston. The Steward of Scotland, who had lain concealed in the Isle of Bute since the battle of Halydon, passed over to the castle of Dunbarton, which was still remaining, to king David. With the assistance of Dougal Campbell, of Lochow, he made himself master of the castle of Dunoon in Cowal. His tenants of the isle of Bute attacked and slew Alan Lile the governor, and presented his head to their master. John the son of Gilbert, governor of the castle of Bute, was made prisoner in the action. He ordered the garrison to surrender, and attached himself to the Scottish interest. Encouraged by these successes, the Steward entered his ancient inheritance of Renfrew, and compelled the inhabitants to acknowledge the sovereignty of David. Godfrey Ross, the governor of Ayrshire, submitted to the Steward. The earl of Moray returned from France, whither he had fled after the battle of Halydon, and was acknowledged regent along with the Steward. The earl, having raised a body of troops, marched against the earl of Athol, compelled him to retire into Lochaber, and at last to surrender; after which he embraced the party of the conquerors. Baliol was now obliged to retire again into England, to solicit assistance from Edward; and this was readily granted. Edward himself took the field at a very unfavorable season for military enterprises. His army was divided into two parts. With the one he wasted Lothian, while Baliol did the like in Annandale with the other; and, in the mean time, Patrick earl of March renounced his allegiance to England; sensible that, though the kings of England main-

tained him in an independency dangerous to Scotland, they would never permit him to become formidable in a country which they themselves possessed. The year 1335 is remarkable for the siege of Lochleven castle by the English, under John de Strivelin. This fort was built on a small island, very difficult of access. The English commander erected a fort in the cemetery of Kinross; and at the lower end of the lake, whence runs the river Leven, he raised a strong and lofty bulwark, by which he hoped to lay the island under water, and oblige the garrison to surrender. But four Scottish soldiers, having approached the bulwark undiscovered, pierced it so dexterously that the waters, rushing out with a prodigious force, overflowed part of the English camp; and the garrison, sallying out during the confusion, stormed and plundered the fort at Kinross. At this time, the English commander, with many of his soldiers, happened to be absent at Dunfermline, celebrating the festival of St. Margaret. On his return, he swore that he would never desist till he had taken the place, and put the garrison to the sword; however, his utmost efforts were at last baffled, and he was obliged, notwithstanding his oath, to desist. In the mean time, the regents assembled a parliament at Dairsy, near Cupar in Fife; but no plan of defence could be determined upon, from the animosities and factions among the barons. Through the mediation of the French, terms of peace were proposed; but, being rejected by the English, Edward again invaded Scotland, cruelly ravaging the country with one army, while Baliol and the earl of Warren did the same with another. Soon after this invasion, count Guy of Namur landed at Berwick with a considerable number of men at arms in the service of the English. He advanced to the neighbourhood of Edinburgh; but was defeated and taken prisoner by the earls of March and Moray, and Sir Alexander Ramsay. In this engagement one Richard Shaw, a Scottish esquire, was singled out by a combatant in the army of count Guy, and both pierced each other with their spears; the stranger, being stripped, was discovered to be a woman. The earl of Moray treated Guy with the greatest respect, not only allowing him and the remainder of his troops to depart from Scotland without molestation, but even attending him to the borders, accompanied by William Douglas and his brother James. On his return, William de Pressen, warden of the castle and forest of Jedburgh, attacked and defeated his party; James Douglas was killed, the earl himself taken prisoner, and carried into England. Thus was the Scottish nation once more reduced to the brink of ruin. Alexander and Geoffrey Mowbray, and some others, pretending powers from 'the earl of Athol, and Robert the Steward of Scotland,' concluded a treaty with Edward at Perth; the substance of which was, that all the Scots should receive pardon, and have their fees, lands, and offices restored, excepting those who by common assent in parliament should be excluded. The liberties of the church, and the ancient laws and usages of Scotland, were to remain in full force. All offices were to be filled with Scotsmen, ex-

cepting that the king should appoint whom he pleased within his regalities.

The earl of Athol now began to persecute with the utmost fury those who wished well to the freedom of Scotland. With 3000 men he besieged the castle of Kildrumny, which had hitherto been the great refuge of king David's party. Sir Andrew Murray of Bothwell resolved to attempt the rescue of his wife and family, who were shut up in it. With 1100 men he surprised Athol in the forest of Kilblain. The earl's men, seized with a panic, fled; on which their commander, refusing to accept of quarter, was killed. Sir Andrew Murray then assembled a parliament at Dunfermline, where he was immediately appointed regent. In 1336 the king of England, perceiving that the Scots were taken under the patronage of France, resolved to invade their country, and crush them at once before they could have assistance from their allies. In this expedition he penetrated as far as Inverness; but the Scots, under Sir Andrew Murray, avoided a general action; so that Edward could effect nothing of consequence. The inhabitants of Aberdeen attacked one Thomas Rosshem, who landed at Dunottar. They were defeated; but Rosshem fell in the action. Edward chastised the vanquished severely, and burned the town. He then began to repair the castles whose fortifications had been demolished by king Robert. He put in a state of defence the castles of Dunottar, Kinclavin, Lawrieston, Stirling, Bothwell, Edinburgh, and Roxburgh; greatly augmented the fortifications of Perth, and left a considerable body of troops in the place. The Scots reduced these castles as soon as Edward was departed; and in 1337, under Sir Andrew Murray, invaded Cumberland. No great exploits, however, were now performed on either side. Edward, making preparations for invading France, had little leisure to attend to the affairs of Scotland; and the Scots, divided among themselves, and destitute of those leaders under whom they had acquired so much glory, could not now annoy their enemies. The most remarkable transaction was the siege of the castle of Dunbar, belonging to the earl of March. The English commander was the earl of Salisbury. The earl of March was absent; but his wife, the daughter of Randolph, commonly called Black Agnes, undertook to defend it in her husband's absence. The English again employed their huge machine called a sow, mentioned in our account of the siege of Berwick: it met with the same fate as formerly; a huge stone, let fall upon it from the top of the walls, crushed it to pieces. The English, baffled in every attack, turned the siege into a blockade; but, Sir Alexander Ramsay having entered it with forty resolute men, the garrison made a sally, and cut in pieces the advanced guard of the enemy. The English, disheartened by so many misfortunes, abandoned the enterprise. In 1338 Sir Andrew Murray the regent died, and was succeeded in his office by Robert the Steward of Scotland. In 1339 he reduced the town of Perth and the castle of Stirling; and gained over to the Scottish interest William Bullock, governor of the castle of Coupar: after which,

having expelled the enemy from every post north of the Forth, he employed himself in settling the affairs of the nation. In 1341 the castle of Edinburgh was surprised by Sir William Bullock. According to his appointment, one Walter Currie of Dundee privately received into his ship the knight of Liddesdale, with William Fraser, Joachim of Kinburch, and 200 resolute men. Currie cast anchor in Leith road, pretending to be an English shipmaster, who had a cargo of wine and provisions, with which he proposed to furnish the commander of the castle. His barrels and hampers were brought to the castle-gate, and suddenly thrown down in such a manner as to obstruct the shutting of it. Currie and his men then slew the sentinels; and the knight of Liddesdale, with a party who lurked in the neighbourhood, rushed in, overpowered the garrison, and made themselves masters of the place. On the 4th of March, this year, the king and queen arrived from France, and landed at Bervie in Kincardineshire. In 1342 Sir Alexander Ramsay took the strong fortress of Roxburgh; for which important service the king bestowed on him the charge of sheriff of Teviotdale, then held by William Douglas of Liddesdale. The king's liberality proved fatal to Ramsay, for from that time Douglas became his implacable enemy; and having, after a pretended reconciliation, unexpectedly surprised him with three of his friends, he put these instantly to death, carrying off Ramsay himself to his castle of the Hermitage, where he caused him to be starved in a most barbarous manner. The unhappy man was confined in a room, over which was a heap of wheat; a few grains of which were let fall every day through a hole, not as many as would support life, but as would protract it for a time, and make him longer sensible of the agonies of hunger; in this miserable situation he survived seventeen days. About the same time, Sir William Bullock was put to death by Douglas in a similar manner; nor was king David in a capacity to punish such atrocious cruelties. In the mean time David, having raised a powerful army, prepared to take a severe revenge of the English, from whom he had suffered so much. Edward was then in France, but commanded Baliol to raise all the militia beyond the Trent: which order, however, produced but little effect; so much was the mean-spirited prince despised by the English. David invaded and ravaged Northumberland; but was obliged to raise the siege of Newcastle, which was commanded by Sir John Nevil, an excellent officer. Exasperated at this repulse, David entered the bishopric of Durham, which he ravaged in the most cruel manner. However, on the approach of Edward with a powerful army, the Scots retired; and a two years truce was agreed upon. This pacification was but short-lived. In 1345 the Scots again prepared to invade England, while Edward took all necessary measures for opposing them; but they ravaged Westmoreland, and burnt several towns. The year ended with a new truce, and hostilities were not renewed till 1346, when David entered England with an army of 50,000 men. His first exploit was the taking of the fortress of Liddel, and massacring all whom he found in it. The

commander, Sir Walter Selby, capitulated with a Scottish knight for his life; but, the bargain being disapproved of by David, he barbarously ordered two of Selby's sons to be strangled in his presence, and then the father's head to be cut off. Thence the Scots marched to Lanercroft, which they plundered; then, passing into Northumberland, they pillaged the priory of Hexham, but spared the town, to serve as a magazine. Three other towns, Corbridge, Durham, and Darlington, were spared for the same reason. In his march to Durham, he would have made the county a desert, had not some of the monks paid him a contribution of £1000 to spare their estates: however, according to Knyghton, every Englishman who fell into David's hands was put to death, unless he could redeem his life by paying threepence. To put a stop to the cruelties of this invader, the queen of England, in her husband's absence, assembled a powerful army, which was divided into four bodies; the first commanded by lord Henry Percy; the second by the archbishop of York; the third by the bishop of Lincoln, the lord Mowbray, and Sir Thomas Rokeby; and the fourth and principal division by Edward Baliol. The king of Scotland headed a chosen battalion, of the flower of his nobility, and the French auxiliaries. The high steward of Scotland headed the second line; and the third was commanded by the earls of Moray and Douglas. While the English were approaching, lord Douglas and Sir David Graham skirmished with them, but were defeated with the loss of 500 men. The general engagement began between the archers on each side, but, the English being superior in the use of the bow, the steward of Scotland advanced to the relief of his countrymen. The English archers, unable to bear his attack, fell back upon lord Henry Percy's division, which was thus put in confusion, and would have been totally defeated, had not Baliol advanced to their relief with a body of 4000 horse. The steward was then obliged to retire; by which means the flank of that division commanded by David, and which was then engaged with another line of the English, was left exposed to an attack. Baliol perceived the advantage; and, without pursuing the steward, attacked the king's division, which was immediately cut in pieces. David was left with about eighty noblemen and gentlemen, but still maintained the fight with obstinacy; nor would he yield, even when wounded in the head with an arrow, expecting to be delivered by the steward, and that line of his army which was still entire under the lords Moray and Douglas. At last, finding himself totally overpowered, he attempted to retreat, but was overtaken by a party under one John Copeland. This captain, endeavouring to seize the king, had two of his teeth struck out by a blow of his gauntlet; but at last the king was obliged to give up his sword, and surrender himself. After he was taken, Baliol attacked and totally routed that division of the Scottish army which had hitherto remained entire under the lords Moray and Douglas. In this battle the Scots lost a great number of their nobility, and 15,000 soldiers. Many persons of distinction were also taken along with the king; and had it not been that

the escape of the Scots was favoured by the avarice of the English soldiers, who neglected the pursuit to plunder, scarcely a single Scotsman would have returned.

David was carried to the castle of Bamborough, where he was kept with so much privacy that for some time it was not known where he was, or that he had been taken prisoner. As soon as the truth was known, the queen of England demanded the royal prisoner from Copeland; but the latter positively refused to part with him even to the queen, unless she could produce an order to that purpose under Edward's hand and seal. This resolute behaviour was resented by the queen, and a complaint made to the king; in consequence of which Copeland was summoned to appear before Edward, when he resigned David to the custody of lord Nevil. The English monarch, then in France, approved of all that he had done, rewarded him with £500 a-year, and sent him back to England honored with knighthood. David was then escorted by Copeland, attended by 20,000 men, from the castle of Ogle in Northumberland, till lord Nevil, by indenture, delivered him to Sir Thomas Rokeby sheriff of Yorkshire. In the same pompous manner he was conducted all the way to London, which he entered on a black courser. He was received in the capital with the greatest solemnity by the lord mayor and aldermen, the city companies under arms lining all the streets through which he passed, and the houses being loaded with spectators who expressed a generous concern for his captivity. Being arrived at the tower, he was delivered, by indenture likewise, to the custody of the constable, lord John Darcy, on the 2d of January, 1347. Baliol, now encouraged by the misfortune of his rival, made an effort once more to establish himself on the throne of Scotland; and, before the end of the year, reduced the castles of Hermitage and Roxburgh, the forest of Etteric, the Merse, with the counties of Annandale, Teviotdale, and Tweeddale. The Scots continued faithful to their king, notwithstanding his misfortune, and chose the steward for the guardian of the kingdom. He behaved with a prudence equal to the high station he filled; but the progress of Baliol was so rapid that it is scarcely probable he could have maintained his ground, had not Edward again consented to a truce; which, however, seems to have been ill observed on the part of the Scots. In fact, though both the Scottish and English historians are silent as to particulars, we find that, about the end of 1348, all Scotland was recovered out of the hands of the English, excepting Berwick, Roxburgh, Hermitage, and Lanark, which was part of Baliol's hereditary estate, and defended by him with an army. The Scottish historians inform us that the English, in revenge for the damages done to their country by the breach of the peace, proclaimed a tournament and other military exercises at Berwick, to which they invited the Scots; but, in their way thither, the latter fell into an ambuscade and were all cut in pieces. The years 1349 and 1350 were remarkable only for a dreadful plague which invaded Scotland, after having ravaged the continent of Europe.

According to Fordun, one-third of the people of Scotland perished at this time. The patients' flesh swelled exceedingly, and they died in two days' illness; but the mortality chiefly affected the middling and lower ranks. The same dreadful calamity continued throughout the years 1351 and 1352; occasioning a cessation of arms not only in Scotland, but throughout all Europe. All this time king David remained a prisoner in England; for, though several treaties had been proposed, they had come to nothing, as Edward insisted upon being indemnified for the ravages the Scots had committed in his territories. At last it was proposed that the king of Scotland should be set at liberty, on paying 90,000 merks for his ransom, by equal proportions, within nine years; with other conditions seemingly not unreasonable, but which we need not specify, as the whole were rejected by the Scottish nobility, and, in 1355, war was recommenced with England, at the instigation of France, who sent 40,000 crowns to Scotland to defray the expenses. With this sum the guardian, having raised an army, once more took the field; but not before the English had destroyed the Lothians and Douglasdale. A battle was fought on Nisbet Moor; in which the English, being drawn into an ambuscade, were totally defeated. The next attempt of the Scots was against Berwick, which they designed to surprise by an escalade. They met, however, with such a vigorous resistance, that many persons of distinction were killed. However, the attack proved successful; but the acquisition was of no importance as the castle held out. Edward, in the mean time, hearing of the loss of the town, hurried back from France to London. Here he staid but three days, and marched northward to raise the siege. He reached Durham on the 23rd of December, 1355, where he appointed all his military tenants to meet him on the 1st of January, 1356. On the 14th he arrived before Berwick, which was instantly retaken; but the Scots were allowed to return home. Baliol now perceiving that Edward meant not to establish him on the throne of Scotland, but to retain in his own possession as many places of that country as he could, came to the resolution of giving up quietly to the king of England all his claims to Scotland. This indeed was only a form, as he was not then possessed of any part of it. However, the ceremony was performed at Roxburgh; and Baliol presented his crown and some earth and stones by way of investiture. Baliol, in return, was to have a revenue of £2000 a-year; and, as Edward was at the head of an excellent army, he had little doubt of forcing the Scots to submit. The affairs of Scotland were now in a very critical situation, and it was necessary to gain time. Edward was therefore amused with a negotiation; and to this he the more willingly listened, as he was waiting for his fleet, from which he had great expectations. A little time, however, discovered the deceit. The Scots plainly told Edward that they would die rather than submit to his demands; and he, in return, threatened a dreadful revenge. His fleet in the mean time arrived in the Frith of Forth; the mariners destroyed and pillaged all that was

within their reach, without sparing even the sacred edifices, carrying off the statues of the blessed virgin, loading the monks with chains, and committing every kind of sacrilege. Edward had by this time marched as far as Haddington, but was obliged to receive provisions all the way from his fleet; for the Scots had desolated the country. During his march his army was harassed, and his foragers cut off, so that he was reduced to extreme distress; and at last, his fleet being totally destroyed by a storm, he was obliged to return to England. In the mean time the prince of Wales, who had been left by his father to carry on the war in France, defeated and took prisoner John king of France at the battle of Poitiers. In this battle were 3000 Scots, who had gone over as auxiliaries to the French monarch, and who suffered extremely. However the success of Edward, instead of rendering him haughty, seemed to have a contrary effect; and, by the mediation of pope Innocent V., a truce for two years was concluded with France, in which the Scots were comprehended. During this interval the ransom of the king of Scots was settled at 100,000 merks, to be paid in ten years; for which twenty hostages were to be given. In consequence of this treaty, David obtained his liberty in 1358, and Edward laid aside all hopes of ever subduing Scotland. As for Baliol, he was now sunk in oblivion; and it is not known what became of him, or when he died. David, though restored to liberty, found himself greatly embarrassed with the payment of such a large sum for his ransom; the kingdom of Scotland being then in a most miserable and exhausted condition. After sending his queen, and going into England himself, he could obtain no greater favor than a respite of a few months for the payment of the second moiety; so that he was at last constrained to ask assistance from France. This could scarcely be expected in the distressed situation of that kingdom; however, it was at last agreed that 50,000 merks should be paid to Scotland, in case the Scots would consent to renew the war the following year. Neither party, however, kept their word; and David, being still greatly distressed about the remainder of his ransom, at last entered into a very extraordinary negotiation with Edward, by which he consented that the king of England should be his successor to the throne of Scotland. But this negotiation was defeated through the invincible hatred which the Scots bore to an English governor. David then, being entirely unable to discharge the remainder of his ransom, was obliged to enter into a new treaty; by which the kingdom of Scotland became indebted to Edward in the sum of £100,000 sterling, to be paid by equal proportions within twenty-five years, during which there should be a truce within the two nations. From this time we meet with little more of any moment in the reign of David. After the death of his queen Johanna, the sister of Edward, he married a Scottish woman of mean birth, named Margaret Logie; but by neither of his wives had he any children. Queen Margaret he divorced on what pretence is not known; but she left the kingdom, and complained personally to the pope,

who treated her as David's lawful wife, and en-joined him to receive her as such under the most severe penalties; but Margaret never returned to Scotland, and, on the 22d of February, 1371, David himself died, leaving the kingdom to his nephew Robert Stewart, the first of that family who sat on the throne of Scotland.

On the accession of Robert II. an assembly of the states was held, in which it was resolved that he should be crowned at Scone; and, to prevent all future disputes concerning the succession, a particular act was framed, by which the kingdom was secured to Robert and his heirs. Being thus established on the throne, he endeavoured to renew the war with the English, to recover from them the town of Berwick, and some other places on the borders. In this, however, he failed; and, as £56,000 of David's ransom still remained unpaid, Robert bound himself to discharge it at the rate of 4000 marks every midsummer. He then proposed an alliance with France; but, the terms demanded by that kingdom being that Scotland should be obliged to make war with England whenever France should require it, Robert would not consent to such a condition. A new treaty, therefore, was entered into, by which it was provided that neither Scotland nor France should be obliged to make war with England; and, by another clause, that the dispensation or authority even of the pope himself should never free the kings or kingdoms of France and Scotland from the obligations they lay under to assist one another as often as required, in opposition to the kingdom of England. In case of a competition for the crown of Scotland, the king of France and his heirs were to take care that no English influence was used; but should with all his power defend and assist the king established by the Scotch laws. Lastly, it was agreed that no Frenchman should ever serve for wages or otherwise against Scotland, nor any Scotsman against France. This last article occasioned a recal of all the Scots from the English armies, which Edward looked upon to be a prelude to invasion. He accordingly issued writs for assembling all the militia in the north of England. At this time an invincible hatred subsisted between the neighbouring people of both nations, which extended not only through the lower ranks, but the higher classes also. The inhabitants of the borders, indeed, paid very little regard to the orders of their respective sovereigns; so that hostilities were committed by them daily upon each other, even when there was peace between the nations. They had established with one another certain conventions, which have been since collected, by the name of Border laws: the families of Douglas and Percy, and their adherents in particular, whose estates lay contiguous to one another, were at perpetual variance. It had been common for the borderers of both kingdoms, during a truce, to frequent each other's fairs; and a servant of the earl of March had been killed in a fray about this time at Roxburgh, which was still in the hands of the English. Justice for this murder was demanded from lord Percy, but he slighted the complaint. On this the earl of March, with his

rather the earl of Moray, assembling their followers, entered the next fair that was held in Roxburgh, plundered and burnt the town, and killed all the English who fell into their hands. The English borderers were ordered to lay waste the lands of the earl of March; but in their way thither destroyed the castle of Sir John Gordon, a man of great property in the south of Scotland. Sir John in his turn invaded England, whence he drove off a large booty in cattle, and a number of prisoners. In his retreat he was attacked by a body of fresh troops under Sir John Lishburn, at a place called Caram. An obstinate encounter followed. The Scots were five times repulsed; but at last they renewed the charge with such fury that they made Lishburn, his brother, and several other persons of distinction, prisoners, with all their surviving soldiers. On this lord Percy with 7000 men encamped at Dunse, in the south of Scotland, but was obliged to retire. In the mean time Musgrave, the governor of Berwick, who had been ordered to join Percy with a detachment from the garrison, was on his march intercepted, defeated, and taken prisoner by Sir John Gordon; after which the border war became general. The issue of these disturbances is but little known; however, in 1377, we find them raging with more violence than ever. The fair of Roxburgh was once more the scene of action, and the town was again burnt down by the Scots. Lord Percy, who was now earl of Northumberland, resolved to take signal vengeance. He ravaged the Scottish borders, particularly the earl of March's estate, for three days, at the head of 10,000 men. Some time after this the Scottish servants became powerful enough to surprise Berwick; which, however, was quickly retaken by the English, who soon after invaded Scotland. In this expedition, however, they succeeded so ill that Percy desisted from his expedition. The Scots then began hostilities by sea, under one Mercer, an experienced sailor; but he was taken prisoner by the English with all his fleet. In 1379 England was afflicted with a dreadful plague, of which the Scots took advantage to invade the country, killing and plundering the defenceless inhabitants without mercy. This predatory war continued, generally to the disadvantage of the English, till the beginning of November 1380, when a truce was concluded for a year. This truce, like the others, was but indifferently observed; so that, in 1383, new negotiations were set on foot; but, in 1384, the war was renewed with greater fury than ever. In spring the earls of March and Douglas took the castle of Lochmaben, and intercepted a rich convoy which the English were sending to Roxburgh; burnt to the ground the castle of Wark, and committed such devastations in the north of England that several gentlemen offered to resign their estates to Richard II. because they were not able to defend them against the Scots. The duke of Lancaster entered Scotland at the head of an army; but the inhabitants had removed every thing valuable, so that he marched on to Edinburgh without accomplishing any thing of consequence. On his return he was harassed by flying parties of Scots, who destroyed a considerable number

of his men. This year, also, the French sent a body of auxiliaries into Scotland. The earls of Northumberland and Nottingham entered Scotland with an army of 10,000 horse and 6000 archers; but retired, after having committed devastations in the southern counties. The Scots revenged themselves by laying waste all the northern part of England to the gates of Newcastle. Berwick was taken by the Scots, and soon after surrendered for 2000 merks. A truce was then, as usual, concluded; but in the mean time king Robert was meditating a severe blow against the English. The duke of Burgundy, having come to the possession of the estate of his father-in-law the earl of Flanders, claimed the sovereignty of the town of Ghent; but the people refused to submit to him, and in this refusal were protected by king Richard II. of England. On this the duke of Burgundy proposed to the French court to invade England in concert with the Scots. A fleet was accordingly fitted out at Sluys; on board of which John de Vienne, the French admiral, embarked, carrying along with him £50,000 in gold, which the duke of Burgundy advanced to be distributed in Scotland, where the admiral arrived safe with 2000 auxiliaries, of whom 500 were men at arms. 400 suits of complete armour were brought along with them, to be distributed among the bravest of the Scots, who were for a short time elated with the great attention which had been paid them by the French king; but in the mean time, the Flemings having revolted, the French abandoned the Scots to sustain the whole weight of the English resentment, that they themselves might employ their arms in Flanders. King Richard took the field with a more numerous army than had ever been mustered in England before. Hostilities were begun by the Scots, who, according to custom, invaded the northern parts of England, and carried off a considerable booty; however, in their retreat, they were in danger of being cut off by the duke of Lancaster, who had been sent with an army to intercept them. The English army proceeded northwards, but could not accomplish any thing, the country being desolated, till they came to Edinburgh, which they laid in ashes. Being, however, incessantly harassed by parties of the enemy, they were obliged to retreat. In 1378, after a short truce, the war was renewed with fresh fury. Northumberland and Westmoreland were ravaged by the earls of Fife and Douglas, and lord Nithisdale defeated a body of 3000 English; after which he formed a plan of invading Ireland, the inhabitants of which had of late been very active against the Scots. In 1388 Douglas obtained permission to raise a body of forces for his invasion; and, having landed in safety, defeated the Irish, plundered the town of Carlisle, and loaded fifteen ships with the booty. Thence the Scots sailed to the Isle of Man, which, in like manner, was plundered and laid waste; after which they returned with their booty to Lock Rian in Scotland. Encouraged by their success Robert determined to proceed on a more enlarged plan. Having assembled a parliament at Aberdeen, a double invasion of England was resolved upon. Two armies were raised consisting of 25,000 men each, the one

under the earls of Monteith and Fife, Douglas, lord of Galloway, and Alexander Lindsay; the other under the earls of Douglas, March, Crawford, Moray, the lord high constable of Scotland, and other persons of rank. The former entered Cumberland, and the latter Northumberland, both which countries they laid waste, and both armies were to meet within ten miles of Newcastle. The English were thrown into the greatest consternation. Newcastle was defended by the earl of Northumberland, whose age and infirmities rendered him incapable of taking the field; but his place was abundantly supplied by his two sons Henry and Ralph, the former of whom is known in English history by the name of Hotspur. The town was garrisoned by the flower of the English nobility and gentry, as well as the inhabitants of the adjacent counties, who had fled thither for refuge. Douglas selected 2000 foot and 400 horsemen out of the two armies, and encamped on the north side of the town, with a view of storming it next day. In the meantime he was challenged by Hotspur to fight him hand to hand, with sharp ground spears, in sight of both armies. Douglas accepted the challenge, and Percy was unhorsed the first encounter, and obliged to take refuge within the portcullis of the town; whence Douglas brought off his antagonist's lance, with a pennon affixed to it, and swore in his hearing that he would carry it into Scotland. Next day Douglas attempted to storm the town; but, being repulsed in the attack, he decamped in the night. Percy, breathing furious revenge, pursued and overtook the Scots at Otterburn. His arrival was quite unexpected, so that the principal commanders of the Scottish army were sitting down to supper unarmed. The soldiers, however, were instantly prepared for battle; but, in the hurry necessarily attending a surprise of this kind, Douglas forgot to put on his cuirass. Both leaders encouraged their men by the most animating speeches; and both parties waited for the rise of the moon, which happened that night to be unusually bright. The battle being joined on the moon's first appearance, the Scots began to give ground, but, being rallied by Douglas, who fought with a battle-axe, the English, though greatly superior in numbers, were totally routed; 1200 were killed on the spot, and 100 persons of distinction, among whom were the two Percies, were made prisoners by Keith, marischal of Scotland. On the side of the Scots the greatest loss was that of the brave earl Douglas, who was killed in consequence of going to battle without his armour. This single combat between Douglas and Percy, and the subsequent battle, gave rise to the celebrated ballad of Chevy Chase. See OTTERBURN. In the mean time the bishop of Durham marched towards Newcastle with an army of 10,000 men; but was informed by the runaways of Percy's defeat, on the 21st of July 1388. In a council of war it was resolved to pursue the Scots, whom they hoped easily to vanquish, as being wearied with the battle of the preceding day, and laden with plunder. The earl of Moray, who commanded in chief, having called a consultation of his officers, resolved to venture a battle. The prisoners were almost as

numerous as the whole Scottish army; however the generals required no more of them than their words of honor that they should continue inactive during the battle, and remain prisoners still. This condition being complied with, the Scots drew out their army for battle. Their rear was secured by marshes, and their flanks by large trees which they had felled. In short their appearance was so formidable that the English, dreading to encounter a resolute enemy so strongly secured, retired to Newcastle, leaving the Scots at liberty to continue their march to their own country. Robert being now oppressed with age, so that he could no longer endure the fatigues of government, the administration of affairs devolved upon his second son the earl of Fife; for his eldest son was by nature indolent, and besides lame by an unlucky blow he had received from a horse. Early in the spring of 1389 he invaded England with success; but the same year a truce was concluded, to last from the 19th of June 1389 to the 16th of August 1392; in which the allies of both crowns were included. This truce was violently opposed by the nobility, who suspected their king of being too much under French influence. Upon this the court of France sent over ambassadors to persuade the nobility to comply; informing them that, in case of a refusal, they could expect no assistance either of men or money from the continent. With difficulty they prevailed, and peace between England and Scotland was once more restored. Scarcely, however, was this truce finished, when the peace of the nation was most scandalously violated by Robert's third son, Alexander, earl of Buchan. This prince, having a quarrel with the bishop of Murray, burnt down the fine cathedral of Elgin, which has been called by historians the ornament of the north of Scotland. The king for this crime caused his son to be imprisoned; and a civil war would have been the consequence had it not been for the veneration which the Scots retained for their old king. However they did not long enjoy their beloved monarch; for he died on the 19th of April 1390, in the seventy-fifth year of his age, and the nineteenth of his reign.

On the death of Robert II. the crown devolved upon his eldest son John; but the name being thought unpropitious, from the unfortunate reigns of the three Johns of Scotland, England, and France, he changed it for that of Robert, though he was still called by the commonalty Robert John Fernzier. He had been married to Annabella, the daughter of Sir John Drummond, ancestor to the noble family of Perth; and was crowned along with his consort at Scone, on the 13th of August, 1390. He confirmed the truce with England, and renewed the league with France; but the beginning of his reign was disturbed by the wars of the petty chieftains with each other. Duncan Stewart, son to Alexander, earl of Buchan, who had died in prison, assembling his followers under pretence of revenging his father's death, laid waste the county of Angus. Walter Ogilvy, the sheriff of Angus, attempting to repel the invaders, was killed, with his brother and sixty of their followers. The king then gave a commission to the earl of Crawford to suppress them, which he soon did, and most

of them were either killed or executed. The followers of the earl of Buchan were composed of the wildest Highlanders, distinguished by the title of Catterenes, which answers to that of banditti or robbers. They seem to have lived, like the Arabs, entirely by plunder; and they or their ancestors had emigrated from the Western Isles and from Ireland. The lands they inhabited were never cultivated till the middle of the seventeenth century. The earl of Crawford's success against the followers of Buchan encouraged Robert to intrust him with a commission for subduing other insurgents. The most remarkable of these were the Clan Chattan and Clan Kay. As both these tribes were numerous and brave, Crawford was afraid that they might unite against him as a common enemy. He proposed, therefore, that the two rival clans should each choose thirty men, to determine their differences by the sword without any other weapon. The king and his nobility were to be spectators of the combat; the conquered clan were to be pardoned for all their former offences, and the conquerors honored with the royal favor. This proposal was readily accepted, and the North Inch of Perth was to be the scene of action. But, upon mustering the combatants, it was found that one of the clan Chattan had absented himself. It was proposed to balance this difference by withdrawing one of the combatants from the clan Kay; but not one of them could be prevailed on to resign his place. At last one Henry Wynd, a saddler, though no way connected with either party, offered to supply the place of him that was absent, on condition of his receiving a French crown of gold (about 7s. 6d. of our money); which was immediately paid him. The combat then began with incredible fury; but at last, through the superior valor and skill of Henry Wynd, victory declared in favor of the clan Chattan. Only ten of the conquerors besides Wynd were left alive, and all of them desperately wounded. Of the clan Kay only one remained; and he having received no hurt escaped by swimming across the Tay. While these internal broils were going on, the truce which had lately been concluded with England was so ill observed that it became necessary to enter into fresh negotiations. These had little effect. The borderers on both sides had been so accustomed to ravage and plunder that they could not live in quiet. Robert also was thought to be too much attached to the king of England. He had introduced the new title of *duke*, which he bestowed first on the prince royal; but, making an offer of that honor to one of the heads of the Douglas family, it was rejected with disdain. That powerful family had never lost sight of an ancient claim they had upon the castle of Roxburgh, which was still in the possession of the English; and this year the son of the earl of Douglas, Sir William Stewart, and others, broke down the bridge of Roxburgh, plundered the town, and destroyed the forage and corn there and in the adjacent country. The English applied for satisfaction; but obtained none, as the confusion which involved the kingdom by the deposition and murder of Richard II., and the accession of Henry IV., prevented them from having recourse to arms, the only argument to

which the Scottish patriots in those days would listen. No sooner was the catastrophe of Richard known in Scotland than the Scots resolved to avail themselves of it; and invading the north parts of England, demolished the castle of Wark, and laid the neighbouring country under contribution. The situation of Henry's affairs did not admit of his resenting this insult. He contented himself with nominating his brother, the earl of Westmoreland, to treat with the Scots about a truce of peace; or, if that could not be obtained, to make a mutual agreement that the towns of Dumfries in Scotland, and Penrith in England, should be free from hostilities during the war. To this proposal the Scots paid no regard; and being now encouraged by the court of France, who resented the deposition of Richard, they renewed their ravages in England. In 1400 Henry called a parliament to consult on the best means of repelling the Scottish invasions; and in this he was greatly assisted by the divisions of the Scots among themselves. Prince David, duke of Rothesay, the heir-apparent of the crown, was now grown up to man's estate, and it was thought proper to provide a suitable consort for him. The king scandalously offered him to the lady whose father could give him the highest price. The earl of March was the highest bidder; and advanced a considerable sum in ready money, on condition that his daughter should become the royal bride. This sordid match was opposed by Douglas, who proposed his own daughter, the lady Margery. So degenerated was the court of Scotland, at this time, that neither the king nor the duke of Rothesay opposed this proposal of a new match, because it was to be purchased with a fresh sum; and they even refused to indemnify the earl of March for the money he had already advanced. As the duke of Albany sided with Douglas, a council of the nobility was privately assembled, which annulled the contract of the lady Elizabeth Dunbar, the earl of March's daughter, in favor of the lady Margery, daughter to the earl of Douglas; but without taking any measures for repaying the money to the earl of March. The continuator of Fordun informs us that the earl of Douglas paid a larger sum for his daughter's fortune than that which had been advanced by the earl of March, and that the earl of Douglas's daughter was married to the duke of Rothesay: that, before the marriage was celebrated, March demanded that the money he had advanced should be reimbursed; but, receiving an unsatisfactory answer, he declared that, as the king had not fulfilled his bargain, he would bring unexpected calamities upon the country. Accordingly he fled into England, leaving his castle of Dunbar to the custody of his nephew Robert Maitland, who soon after put it into the hands of the earl of Douglas, called in history Archibald the Grim, from the sternness of his visage. As soon as Robert heard of the revolt of the earl of March, he sent ambassadors demanding back his subject; but the request was disregarded. On the other hand, the earl of March demanded repossession of the castle of Dunbar, pleading that he had committed no act of treason, but had come to England under a safe conduct from king Henry, on purpose to nego-

ciate his private affairs, but this request was disregarded; upon which he sent for all his family and followers to England, where they joined him in great numbers. This produced a war between the two kingdoms. The earl of March, with Henry Percy, surnamed Hotspur, invaded Scotland, penetrating as far as Haddington, and carrying off great numbers of the inhabitants into captivity. Thence they went to Peebles, and then to Linton, ravaging the country all the way as they passed along. They next besieged the castle of Hales, and took several of the neighbouring forts; but Archibald the Grim, or his son, having raised an army against them, they were struck with terror, and fled to Berwick, to the gates of which they were pursued by the Scots. At this time the Scottish admiral, Sir Robert Logan, was at sea with a squadron; but miscarried in an attempt he made upon some English ships of war that protected their fleet when fishing upon the coast of Scotland. After this the English plundered the Orkney Islands; which, though belonging to the crown of Norway, were at that time governed, or rather farmed, by Sinclair the Scottish earl of Orkney and Caithness. All this time the earl of March continued under the protection of the king of England. He had received repeated invitations to return to his allegiance: but, all of them being rejected, he was proclaimed a traitor; and the Scottish governor made a formal demand of him from king Henry. With this the latter not only refused to comply, but renewed his league with the lord of the isles. On the 25th of July, 1400, the earl of March renounced his homage, fealty, and service, to the king of Scotland, and transferred them to Henry by a formal indenture. For this he was rewarded with a pension of 500 merks sterling, and the manor of Clipestone in Sherwood forest. Henry now began to revive the claim of homage from the kings of Scotland, and even to meditate the conquest of the kingdom. He had indeed many reasons to hope for success; from the weakness of the Scottish government, the divided state of the royal family, and the dissensions among the chief nobility. Before he set out on his journey he received a letter from the duke of Rothesay, full of reproaches on account of the presumptuous letters which Henry had addressed to Robert and his nobility. The letter was addressed by the duke, 'To his adversary of England,' as the Scots had not yet recognised the title of Henry IV. to the crown of England. Towards the end of it the duke desired Henry, to avoid the effusion of Christian blood, to fight him in person with two, three, or 100 noblemen on a side. But this challenge produced no other answer from Henry than that 'he was surprised that the duke of Rothesay should consider noble blood as not being Christian, since he desired the effusion of the one, and not of the other.' Henry arrived at Leith on the very day on which he had appointed the Scottish nobility to meet him and pay their homage, and conclude a peace between the two crowns. He flattered the English with a promise of raising the power and glory of their country to a higher pitch than it had ever reached. Under this pretext he seized upon the sum of £350,000

in ready money, beside as much in plate and jewels, which had been left by Richard II. in the royal treasury. He raised also vast contributions on the clergy and nobility, and likewise on the principal towns and cities. At last, finding that neither his vast preparations, nor the interest of the earl of March, had brought any of the Scots to his standard, he formed the siege of Edinburgh castle, which was defended by the duke of Rothesay. The duke of Albany, brother to king Robert, was then in the field with an army, and sent a letter to king Henry, promising that, if he would remain where he was for six days, he would give him battle, and force him to raise the siege, or lose his life. When this was written the duke was at Calder-muir; and Henry was so much pleased with the letter that he presented the herald who delivered it with his upper garment, and a chain of gold; promising, on his royal word, that he would remain where he was until the day appointed. On this occasion, however, the duke forfeited his honor (if indeed the villain had any to forfeit); for he suffered six days to elapse without making any attempt on the English army. Henry in the mean time, pushed on the siege of Edinburgh castle; but met with a most vigorous resistance from the duke of Rothesay. At the same time he was informed that the Welsh were on the point of rebellion under their famous chieftain Owen Glendower. He knew also that many of the English were highly dissatisfied with his title to the crown; and that he owed his peaceable possession of it to the moderation of the earl of March, who was the real heir to the unfortunate Richard, but a nobleman of no ambition. For these reasons he raised the siege of Edinburgh castle, and returned to England. He then agreed to a truce for six weeks, but which was afterwards prolonged for a year, by commissioners of the two crowns, who met at Kelso. In 1401 Scotland suffered a great loss by the death of Trail, archbishop of St. Andrew's, a most exemplary patriot, and a person of great influence. Archibald Douglas the Grim had died some time before, and his loss also was now severely felt; for the king himself, naturally feeble, and quite disabled by his age and infirmities, lived sequestered from the world. This year also queen Annaoella died, so that none remained who might be able to heal those divisions which prevailed among the royal family. Robert duke of Albany, a man of great ambition, was an enemy to the duke of Rothesay, the heir-apparent; and endeavoured to impress his father with a bad opinion of him. This prince, however, appears to have been chargeable with no misdemeanor of consequence. One Ramornny, a man of the vilest principles, but an attendant on the duke of Rothesay, had won his confidence; and, perceiving how much he resented the conduct of his uncle the duke of Albany, had the villany to suggest to the prince the despatching him by assassination. This infamous proposal the prince rejected with such horror and displeasure, that the villain, being afraid he would disclose it to the duke of Albany, informed the latter, under the seal of the most inviolable secrecy, that the prince intended to murder him; upon which the

duke, and William Lindsay of Rossay, his associate, resolved upon the prince's death. By practising upon the doating king, Lindsay and Ramorny obtained a writ directed to the duke of Albany, empowering him to arrest his son, and to keep him under restraint. The same traitors had previously possessed the prince with an apprehension that his life was in danger, and had persuaded him to seize the castle of St. Andrew's. He was riding thither with a small attendance, when he was arrested between the towns of Nidi and Stratrum (according to the continuator of Fordun), and hurried to the very castle of which he was preparing to take possession. The duke of Albany, and the earl of Douglas, who was likewise the prince's enemy, were then at Culross, waiting the event; of which they were no sooner informed, than they ordered a strong body of ruffians to carry the royal captive from the castle; which they did, after clothing him in a russet cloak, and committing him to the custody of two execrable wretches, John Selkirk and John Wright, who were ordered by the duke of Albany to starve him to death. According to Buchanan his fate was for some time prolonged by the compassion of one of his keeper's daughters, who thrust him oat cakes through the chinks of his prison walls, and a woman who, being a wet nurse, found means to convey part of her milk to him through a small tube. Both these charitable females were detected, and put to death. The prince himself died on Easter-eve, his hunger, it is said, having impelled him to devour part of his own flesh. In the mean time Robert, being yet ignorant of the shocking murder, had consented to renew hostilities with England. On the expiration of the truce, Henry sent a commission to the earls of Northumberland and Westmoreland, to offer the Scots any terms they could reasonably desire; but every offer of this kind was rejected. The earl of March had received another pension from Henry, on condition of his keeping on foot a certain number of light troops to act against the Scots; and so effectually did these now annoy their enemies that the earl of Douglas was obliged to take the field. By dividing his men into small parties, he repressed the depredations of the invaders; and Thomas Haliburton, the commander of one of the Scottish parties, made incursions into England as far as Bamboorough, whence he returned with a considerable booty. This encouraged another chieftain, Patrick Hepburn, to make a similar attempt; but, being elated with success, he remained too long in the enemy's country; so that the earl of March sent a detachment to intercept him. This produced a desperate encounter, in which Hepburn was killed; the flower of the youth of Lothian, who had attended him, were cut off, and scarcely a single Scotchman remained unwounded. On the news of this disaster, the earl of Douglas applied for assistance to the duke of Albany. He was immediately furnished with a considerable army, consisting of 10,000, or 13,000; but, according to the English historians, of 20,000 men. Murdoch, the son of the duke, attended the earl on this expedition, as did also the earls of Moray, Angus, Orkney, and many others of the chief

nobility, with eighty knights. The Scots on this occasion conducted themselves with the same imprudence they had done before. Having penetrated too far into the country, they were intercepted by the English on their return, and obliged to engage at a place called Homeldon, under great disadvantages. The consequence was that they were utterly defeated, and almost the whole army either killed or taken. Henry Hotspur, to whom this victory was chiefly owing, resolving to pursue the advantage he had gained, entered the southern parts of the kingdom, and laid siege to a castle called Cocklawys, on the borders of Teviotdale. The castle was for some time bravely defended; but at last the governor entered into a treaty, by which it was agreed to deliver up the castle, if it was not relieved by the king or governor in six weeks; during which time no additional fortifications were to be made. But, while the English were retiring, one of Percy's soldiers pretended that the Scots had broke the capitulation by introducing a mattock into the place. The governor, hearing of this charge, offered to fight any Englishman who should engage to make it good. A champion was accordingly singled out, but was defeated by the Scotchman; and the English army retired according to agreement. The matter then being debated in the Scottish council, it was resolved to send relief to the castle. Accordingly the duke of Albany, with a powerful army, set out for the place; but, before he came there, certain news were received of the defeat and death of Hotspur, at Shrewsbury. In 1404 king Henry, anxious for a peace with Scotland, renewed negotiations for that purpose. These, however, not being attended with success, hostilities were continued, but without any remarkable transaction. In the mean time king Robert was informed of the miserable fate of his eldest son the duke of Rothesay; but was unable to resent it by executing justice on the monster Albany. After giving himself up to grief, therefore, for some time, he resolved to provide for the safety of his second son James, by sending him into France; and the young prince took shipping with all imaginable secrecy at the Bass, under the care of the earl of Orkney. On his voyage he was taken by an English privateer off Flamborough Head, and brought before Henry. The English monarch having examined the attendants of the prince, they told him they were carrying the prince to France for his education. 'I understand the French tongue,' replied Henry, 'and your countrymen ought to have been kind enough to have trusted me with their prince's education.' He then committed the prince and his attendants close prisoners to the tower of London. The news of this disaster arrived at the castle of Rothesay in the Isle of Bute (the place of Robert's residence) while the king was at supper; and the news threw him into such an agony of grief that he died in three days, the 29th of March 1405, after having reigned about fifteen years.

By the death of Robert, and the captivity of the prince, all the power devolved upon the duke of Albany, who was appointed regent by a convention of the states assembled at Scone.

The allegiance of the people, however, to their captive prince could not be shaken; so that the regent was obliged to raise an army for the purpose of rescuing him. Henry summoned all his military tenants, and made great preparations; but, having agreed to treat of a final peace with Ireland and the lord of the Isles, the regent laid hold of this as a pretence for entering into a new negotiation with the English monarch; and a truce was concluded for a year. In consequence of this, Rothesay, king at arms, was appointed commissary general for the king and kingdom of Scotland; and in that quality repaired to the court of England. When prince James was taken, there had been a truce, however ill observed, subsisting between the two nations. Rothesay produced the record of this truce, which provided that the Scots should have a free navigation; and, in consequence of this, he demanded justice of the captain and crew of the privateer who had taken the prince. Henry ordered the matter to be enquired into; but the English brought their complaints as well as the Scots; and the claims of both were so intricate that the examination fell to the ground, but at the same time the truce was prolonged. In the end of 1409, or the beginning of 1410, the war was renewed with England, and Henry prepared to strike the fatal blow which he had long meditated against Scotland. He had entered into a league with the lord of the Isles, where a considerable revolution then happened. Walter Lesley had succeeded to the estate and honors of the earl of Ross, in the right of his wife, who was the heir. By that marriage, he had a son named Alexander, who succeeded him; and a daughter Margaret, who was married to the lord of the Isles. This Alexander had married one of the regent's daughters; and, dying young, he left behind him an only daughter, Euphan, who was deformed, and became a nun at North Berwick. Her grandfather, the regent, procured from her a resignation of the earldom of Ross, to which she was undoubted heir, in favor of John earl of Buchan, but in prejudice of Donald lord of the Isles, who was the son of Margaret, sister to the earl Alexander, and consequently the nearest heir to the estate after the nun. Donald applied for redress; but, his suit being rejected, he, with his brother John, fled into England, where he was graciously received by king Henry. According to the instructions given him by the English monarch, Donald returned to his own dominions in the Isles, where he raised an army, and, passing over into Ross-shire, violently seized on the estate in dispute. He was soon at the head of 10,000 Highlanders, with whom he marched into the province of Moray, and thence to Strathbogie and Garioch, which he laid under contribution. Advancing towards Aberdeen, with a view to pay his troops with the plunder of that city, which was then a place of considerable trade, he was met by the earl of Marr, whom the regent had employed to command against him, at a village called Harlaw, near Aberdeen. A fierce engagement ensued, in which great numbers were killed on both sides, and the victory remained uncertain; but Donald finding himself in the midst of an enemy's country, where he could

raise no recruits, began to retreat next day; and, the shattered state of the royal army preventing him from being pursued, he escaped to his own dominions; where in a short time he submitted, and swore allegiance to the crown of Scotland. In the mean time Henry continued the war, and refused to renew the truce, though frequently solicited. He had now, however, sustained a great loss by the defection of the earl of March, who had gone over to the Scots. This nobleman, on his return to Scotland, had been fully reconciled to the Douglas family, and now strove to distinguish himself in the cause of his country; a circumstance which, together with the countenance shown the Scots by the court of France, and a bull published by the pope in their favor, contributed to reduce Henry to reason: we hear of no more hostilities between the two nations till after the death of the English monarch, which happened in 1413.

In 1415, the truce being expired, the Scots made great preparations for besieging Berwick; but nothing was done during the campaign, but the burning of Penrith by the Scots, and Dumfries by the English. Next year a truce was agreed upon, and a treaty entered into for the ransom of king James; which was so far advanced that the English king agreed to his visiting Scotland, provided he engaged to forfeit £100,000 sterling in case of his failure to return by a certain day. For reasons now unknown, this treaty was broken off, and vast preparations were made for a new invasion of Scotland; which, however, was executed with so little success, that it became known among the common people of Scotland by the name of the fule raid. In 1420 died Robert duke of Albany, regent of Scotland, at the age of eighty; and such was the veneration which the Scots had for his memory, notwithstanding his villany, that his post of regent was conferred upon his eldest son Murdoch. The war with England was now discontinued; but in France Henry V. met with the greatest opposition from the Scots auxiliaries, insomuch that he proclaimed all the Scots in the service of the Dauphin rebels against their lawful sovereign. Soon after this the town and castle of Melun being obliged to capitulate, one of the articles was, that all the English and Scots in the place should be resigned to the absolute disposal of the king of England; when he caused twenty Scottish soldiers who were found in the place to be hanged. In 1421 Henry returned to England, and with him James the Scottish king. On his arrival there, he was informed that the Scots, under the earl of Douglas, had made an irruption into England, where they had burnt Newark, but had been forced to return to their own country by a pestilence, though a new invasion was daily expected. Instead of resenting this insult, Henry invited the earl of Douglas to a conference at York; in which the latter agreed to serve him during life, by sea and land, against all living, except his own liege lord the king of Scotland, with 200 foot and as many horse; the king of England, in the mean time, allowing an annual revenue of £200 for paying his expenses. A new negotiation was also now set on foot for the ransom of king James; but

he did not obtain his liberty till 1424. Henry V. was then dead; and, none of his generals being able to supply his place, the English power in France began to decline. They then became sensible how necessary it was to be at peace with Scotland. James was therefore highly caressed, and at his own liberty within certain bounds. The English even consulted him about the manner of conducting the treaty for his ransom; and one Dougal Drummond, a priest, was sent with a safe conduct for the bishop of Glasgow, chancellor of Scotland, Dunbar earl of March, John Montgomery of Androssan, Sir Patrick Dunbar of Bele, Sir Robert Lauder of Edrington, &c., to have an interview at Pomfret, with their master the captive king, and there to treat of their common interests. Most of these noblemen and gentlemen had before been nominated to treat with the English about their king's return; and Dougal Drummond seems to have been a domestic favorite with James. Hitherto the Scottish king had been allowed an annual revenue of £700; but, while he was making ready for his journey, his equipage and attendants were increased to those befitting a sovereign; and he received a present from the English treasury of £100. That he might appear in a way suitable to his dignity, at every stage were provided relays of horses, fish, flesh, and fowl, with cooks and other servants for furnishing the most sumptuous entertainments. In this meeting at Pomfret, James acted as a kind of a mediator between England and his own subjects, to whom he fully laid himself open; but, in the mean time, the English regency issued a commission for settling the terms upon which he was to be restored, if he and his commissioners should lay a proper foundation for such a treaty. The instructions the commissioners received were dated at Westminster, July 6th, 1423; but we need not quote them, as nothing definitive was concluded at this time, but that another meeting should be held at York. This accordingly took place, and the chief articles proposed were agreed to. The English commissioners were, Thomas bishop of Durham, chancellor of England, Philip bishop of Winchester, Henry Percy earl of Northumberland, and Mr. John Wodeham. On the 10th of September they came to the following agreement with the Scottish commissioners:—1. That the king of Scotland and his heirs, as an equivalent for his entertainment in England, should pay to the king of England and his heirs, at London, in the church of St. Paul, by equal proportions, the sum of £40,000 sterling. 2. That the first payment of 10,000 merks, should be made six months after the king of Scotland's entering his own kingdom; that the like sum should be paid next year, and so on for six years, when the whole would be cleared; unless, after payment of 40,000 merks, the last payment of 10,000 should be remitted. 3. That the king of Scotland, before entering his own kingdom, should give sufficient hostages for his performance. 4. That the king of Scotland should be at Branspath, or Durham, by the 1st of March, where he should be attended by the nobles of his blood, and other subjects, to fix the number and quality of the

hostages. 5. That, to cement and perpetuate the amity of the two kingdoms, the governors of Scotland should send ambassadors to London, with power to conclude a contract of marriage between the king of Scotland and some lady of the first quality in England. (James, it is probable, had already fixed his choice upon the lady Joan, daughter to the earl of Somerset, who was son to John of Gaunt duke of Lancaster, by his second marriage; but he paid his people the compliment, not only of consulting their opinion, but of concluding the match.) The commissioners, after their agreement at York, proceeded towards London, and Thomas Somerville of Carnwath, with Walter Ogilvy, were added to their number. Being arrived at that capital, they ratified the former articles, and undertook for their king, that he should deliver his hostages to the king of England's officers, in the city of Durham, before the last day of March; that he should also deliver to the said officers four obligatory letters, for the whole sum of £40,000 from the four burghs of Edinburgh, Perth, Dundee, and Aberdeen; that he should give his obligatory letter to the same purpose, before removing from Durham, and should renew the same four days after his arrival in his own kingdom; that the hostages might be changed from time to time for others of the same fortune and quality, and that, if any of them should die in England, others should be sent thither in their room. The marriage of James with the lady Joan Beaufort was celebrated in the beginning of February, 1424. The young king of England presented him with a suit of cloth of gold for the ceremony; and the next day he received a legal discharge of £10,000 to be deducted from the £40,000 at which his ransom was fixed. The ceremony being performed, the king and queen set out for Durham, where the hostages were waiting; and arrived at his own dominions, along with the earl of Northumberland and the chief of the northern nobility, who attended him with great pomp. On the 20th of April, the same year, he was crowned at Scone. During the dependence of the treaty for James's release, the Scots had emigrated to France in such numbers that no fewer than 15,000 of them appeared in arms under the duke of Touraine.

On his return, James found himself in a disagreeable situation. The great maxim of the duke of Albany, when regent, had been to maintain himself in power by exempting the lower class of people from taxes. This plan had been continued by his son Murdoch; but, as the latter was destitute of his father's abilities, the people abused their happiness, and Scotland became such a scene of rapine that no commoner could say he had a property of his own. The Stewart family, on their accession, were possessed of a very considerable patrimonial estate, independent of the standing revenues of the crown, which consisted chiefly of customs, wards, and reliefs. The revenues of the paternal estate belonging to James, had they been regularly transmitted to him, would have more than maintained him in a splendor equal to his dignity, while he was in England; nor would he in that case have had any occasion for an allowance from

the king of England. But, as the duke of Albany never intended that his nephew should return, he parcelled out among his favorites the estate of the family in such a manner that James found all his patrimonial revenues gone, and many of them in the hands of his best friends. This circumstance, of itself sufficiently disagreeable, was attended with two others, which tended to make it more so. The one was that the hostages which had been left for the king's ransom in England, being all of them persons of the first rank, were attended by their wives, families, children, and equipages, which rivalled those of the same rank in England, and drew much ready money out of the nation. The other circumstance was, the expense of the Scottish army in France; where Charles, who had never been in a condition to support it, was now reduced to the utmost necessity; while the revenues of James himself were both scanty and precarious. To remedy these inconveniences, therefore, the king obtained from his parliament an act, obliging the sheriffs of the respective counties to enquire what lands and estates had belonged to his ancestors David II., Robert II., and Robert III.; and he formed a resolution of resuming these lands wherever they could be discovered. At this time many of the most illustrious personages in the kingdom were arrested, and the duke of Albany, his two sons, and the earl of Lennox the duke's father-in-law, were put to death. James proceeded with great spirit to reform the abuses which had pervaded every department of the state, and warmly protected and encouraged learning and learned men. He himself wrote some poetry; and in music was so excellent a composer, that he has been with good reason regarded as the father of Scottish music. He introduced organs into his chapels, and a much better style of architecture into all the public buildings. He was also a warm patron of the useful arts: in short, he did more towards the civilisation of his people than had been done by any of his predecessors. In the mean time the truce continued with England. James, however, seemed not to have any inclination to enter into a perpetual alliance with that kingdom. On the contrary, in 1428, he entered into a treaty with France; by which it was agreed that a marriage should be concluded between the dauphin of France, afterwards Louis XI., and the young princess of Scotland; and so great was the necessity of Charles VII. for troops at that time, that he demanded only 6000 forces as a portion for the princess. The rest of the reign of James was spent in reforming abuses, curbing the authority of the great barons, and recovering the royal estates. In this, however, he used so much severity that he was at last murdered in 1437. The perpetrators of this regicide were the earl of Athol; Robert Graham who was connected with the earl, and discontented on account of his losing the estate of Strathern; and Robert, grandchild and heir to Athol, and one of the king's domestics. The king had dismissed his army, without even reserving to himself a body guard, and was at supper in the Dominican convent of the Black friars near Perth: Graham had for some time

been at the head of a band of outlaws, and brought a party of them to Perth in the dead of the night, posting them near the convent. Walter Stratton, one of the king's cupbearers, on bringing some wine to the king while at supper, perceived armed men in the passage, and gave the alarm, when he was immediately killed. Catharine Douglas, one of the queen's maids of honor, ran to bolt the outer door; but the bar was taken off by Robert Stuart; and, the lady thrusting her arm into the staple, it was instantly broken. Patrick Dunbar, brother to the earl of March, was killed in attempting to defend his sovereign, and the queen received two wounds in attempting to interpose herself betwixt her husband and the assassins. James defended himself as long as he could; but was overpowered at last after receiving twenty-eight wounds.

The crown now devolved upon his son James II., at that time only seven years of age. A parliament was immediately called by the queen-mother, at which the most cruel punishments were decreed to the murderers of the late king. The crime, no doubt, deserved an exemplary punishment; but the barbarities inflicted on some of those wretches are shocking to relate. Within less than six weeks after the death of the king, all of them were brought to Edinburgh, arraigned, condemned, and executed; the earl of Athol and Robert Graham undergoing the most cruel torments, such as pinching with hot irons, dislocation of the joints, &c. The earl of Athol had, besides, a crown of red hot iron put on his head, and was afterwards cut up alive, his heart taken out, and thrown into a fire. Æneas Sylvius, the pope's nuncio, who beheld them, said on this occasion that he was at a loss to determine whether the crime committed by the regicides or the punishment inflicted upon them was the greatest. As the late king had prescribed no form of a regency, in case of his death, the settlement of the government became a matter of great difficulty. Archibald earl of Douglas, who had been created duke of Touraine in France, was by far the greatest subject in the realm; but as he had not been a favorite, and the people were now disgusted with regencies, he was not formally appointed to the administration, though he in fact enjoyed the supreme power as long as he lived; which, however, was but a short time. He died the same year (1438); and Sir Alexander Livingstone of Callendar was appointed to succeed him as governor of the kingdom, that is, to have the executive power, while William Crichton, as chancellor, had the direction of the civil courts. This was a most unfortunate partition of power for the public. The governor and chancellor quarrelled; the latter took possession of the king's person and the castle of Edinburgh, to neither of which he had any right; while the former had on his side the queen mother, a woman of intrigue and spirit. Her son was shut up in the castle of Edinburgh; and in a short time there was no appearance either of law or government. The governor's edicts were counteracted by those of the chancellor in the king's name, and those who obeyed the chancellor were punished by the

governor; while the young earl of Douglas, with his numerous followers and dependents, was a declared enemy of both parties. The queen-mother demanded access to her son, which Crichton could not deny her; and she was accordingly admitted, with a small train, into the castle. She played her part so well, and dissembled with so much art, that the chancellor, imagining that she had become a convert to his cause, treated her with unbounded confidence. Pretending that she had vowed a pilgrimage to the white church at Buchan, she recommended the care of her son's person, till her return, to the chancellor, in the most affectionate terms; but, in the mean time, she secretly sent him to Leith, packed up in a clothes chest; and both she and James were received at Stirling by the governor before the escape was known. As every thing had been managed in concert with Livingstone, he called together his friends, and laying before them the tyrannical behaviour of the chancellor, it was resolved to besiege him in the castle of Edinburgh, the queen promising to open her own granaries for the use of the army. In the mean time, the chancellor anticipating the storm, and applying to the earl of Douglas, that haughty nobleman answered him that he was preparing to exterminate both parties. The siege of Edinburgh castle being formed, the chancellor demanded a parley, and to have a personal interview with the governor; which the latter, who knew the sentiments of Douglas, readily agreed to. Common danger united them, and the chancellor resigning to the other the custody of the castle and the king's person, with the highest professions of duty and loyalty, the two competitors swore an inviolable friendship. Next day the king cemented their union, by confirming both in their respective charges. The lawless example of the earl of Douglas encouraged the other great landholders to gratify their private animosities, sometimes at the expense of their honor, as well as their humanity: and a family difference having occurred between Sir Allan Stuart of Darnley, and Thomas Boyd of Kilmarnock; it was settled that both parties should come to a peaceable agreement at Polmaisthorn, between Linlithgow and Falkirk, where Stuart was treacherously murdered by his enemy. His death was revenged by his brother, Sir Alexander Stuart of Beilmonth, who challenged Bayd to a pitched battle, the principals being each attended by a small army. The conflict was fierce and bloody, each party retiring in its turn, and charging with fresh fury; but at last victory declared for Stuart, the bravest of Boyd's attendants being cut off in the field. About this time the islanders, under two of their chieftains, Lauchlan Maclean and Murdoch Gibson, notorious freebooters, invaded Scotland, and ravaged the province of Lenox. They were opposed by John Colcluhoun of Luss, whom they slew, some say treacherously, and others in an engagement at Lochlomond, near Inchmartin. After this the robbers became more outrageous than ever: all the laboring hands in the kingdom being engaged in domestic broils, and a dreadful famine ensued, attended, as usual, by a pestilence. James II. was now about ten years of age; and the

wisest part of the kingdom agreed that the public distresses were owing to a total disrespect of the royal authority. The young earl of Douglas never had fewer than 1600, and sometimes 2000 horse in his train. He pretended to be independent of the king and the law; that he had a right of judicature upon his own large estates; and that he was entitled to the exercise of royal power. He gave protection to thieves and murderers, affecting to brave the king, made knights, and, according to some writers, endowed certain noblemen, of his own dependents, with a power of sitting in parliament. The queen-mother was not wholly guiltless of those abuses. She had fallen in love with, and married Sir James Stuart, commonly called the Black Knight of Lorn, brother to the lord of that title, and a descendant of the house of Darnley. Affection for her husband caused her to renew her political intrigues; her interest inclined towards the party of the Douglasses. The governor sought to strengthen his authority by restoring the exercise of the civil power. The conduct of lord Callendar was not so defensible, either as to prudence or policy. When the queen expressed her desire that her husband might be admitted to some part of the administration, the governor threw both him and his brother lord Lorn into prison, on a charge of disloyal practices. The queen, being offended at this, was herself confined to a mean apartment in the castle of Stirling; and a convention of the states was called to judge in what manner she was to be proceeded against. The case was difficult; nor is it probable that the governor would have carried matters to such extremity, had he not had strong evidences of her illegal behaviour. She was obliged to dissemble her resentment, by professing before the states that she had always been entirely innocent of her husband's practices. Upon making this purgation (as Lindsay calls it) she was released, with her husband and his brother, being bailed by the chancellor and the lord Gordon, who became sureties for their good behaviour in the penalty of 4000 merks. The governor was afterwards accused of many arbitrary and partial acts: but if we consider his situation, and the violence of the parties, it was almost impossible, consistently with his own safety, to have exerted the virtues either of patriotism or moderation. The chancellor was piqued at the small regard which the governor paid to his person and dignity, and secretly connected himself with the queen-mother. The king and his mother continued at Stirling; where the governor, on pretence of consulting the public safety, and that of the king's person, maintained a strong guard. The queen-mother represented this to her son as a restraint upon his liberty; and, obtaining his consent to put himself into the chancellor's hands, the latter, a man of activity and courage, crossing the Forth in the dark with a strong body of horse, surrounded the king as he was hunting: and, when some of the guards offered to dispute the possession of his person, Sir William Livingston, the governor's eldest son, restrained them, and suffered the king to depart. This happened when the governor was absent from Stirling; and the chan-

cellor entered Edinburgh at the head of 4000 horse, where the king and he were joyfully received. The governor showed no emotion at what had happened; on the contrary, he invited the chancellor to an interview, to settle all differences. Lord Douglas, however, continued to brave both parties. He demanded by his ambassadors, Malcolm Fleming of Cumbernauld, and Allan Lawder, the investiture of the sovereignty of Touraine from Charles VII. of France; which, being readily granted, served to increase his insolence. The first-fruits of the accommodation between the two great officers of state was the holding of a parliament at Edinburgh, for redressing the public disorders; and encouragement was given to all persons who had been injured by Douglas to make their complaints. The numbers which on that occasion resorted to Edinburgh were incredible; parents, children, and women, demanding vengeance for the murder of their relations, or the plunder of their estates; till, by the multiplicity of their complaints, they became without remedy, none being found bold enough to encounter the earl, or to endeavour to bring him to a fair trial. The parties, therefore, were dismissed without relief, and it was resolved to proceed with that haughty noble in a different manner. Letters were written to him by the governor and chancellor in the name of the states, requesting him to appear with his friends in parliament, and to take that lead in public affairs to which they were entitled by their high rank and possessions: and the manner in which these letters were penned operated effectually on his vanity, and made the earl consider them as proceeding from the inability of the government to continue the administration of affairs without him. Without suspecting that any man in Scotland would be so bold as to attack him, he wrote to the chancellor and governor that he intended to set out for Edinburgh: when the chancellor, on pretence of doing him honor, met him on his journey; and, inviting him to the castle of Crichton, entertained him there for some days. The chancellor had not only removed the earl's suspicion, but had made him a kind of convert to patriotism, by painting to him the miseries of his country, and the glory that must redound to him and his friends in removing them. He therefore attended the chancellor to Edinburgh; and, being admitted into the castle, dined at table with the king. Towards the end of the entertainment, a bull's head, the certain prelude of immediate death, was served up. The earl and his brother started to their feet, and endeavoured to escape; but the armed men, rushing in, overpowered them, and, tying their hands and those of Sir Malcolm Fleming with cords, they were carried to the hill and beheaded. The young king endeavoured, with tears, to procure their pardon; for which he was severely checked by his unrelenting chancellor.

In 1443 the king, being arrived at the age of fourteen, declared himself out of the years of minority, and took upon himself the administration of affairs. He appears to have been a prince of great spirit and resolution; and he had occasion for it. Having appointed one Robert Sempil of Fulwood governor of the castle of

Dumbarton, he was killed by one Galbreath (a noted partizan of the earl of Douglas), who seized upon the government of the castle. The young earl of Douglas, finding himself not supported by the chief branches of his family, began to think his safest course would be to return to his duty. He accordingly repaired to the king at Stirling; and, throwing himself at his feet, implored his pardon. The king, finding that he insisted on no terms but that of pardon, and that he had unconditionally put himself into his power, not only granted his request, but made him the partner of his councils. James had always disliked the murder of the earl of Douglas and his brother; and the chancellor, perceiving the ascendancy which this earl was daily gaining at court, thought it high time to provide for his own safety. He therefore resigned the great seal, and retired to the castle of Edinburgh, the custody of which he pretended had been granted to him by the late king during his life, or till the present king should arrive at the age of twenty-one. Lord Callendar, who knew himself equally obnoxious as Crichton, and that he could not maintain his footing by himself, resigned likewise all his posts, but kept possession of the castle of Stirling. As both this and that of Edinburgh were royal forts, the two lords were summoned to surrender them; but, instead of complying, they justified their conduct by the great power of their enemies, who had been so lately at the head of robbers and outlaws; but promised to surrender themselves to the king as soon as he was of lawful age. This answer being deemed contumacious, the chancellor and the late governor, with his two sons Sir Alexander and Sir James Livingston, were proclaimed traitors in a parliament summoned to meet at Stirling. In another parliament held at Perth the same year, an act was passed that all the lands and goods which had belonged to the late king should be possessed by the present to the time of his lawful age. This act was levelled against the late governor and chancellor, who were accused of having alienated to their own uses, or to those of their friends, a great part of the royal effects and jewels; and, their estates being confiscated, the execution of the sentence was committed to John Forrester of Corstorphin, and other adherents of the earl of Douglas. The sentence threw the whole nation into a flame. The castle of Crichton was besieged; and, being surrendered upon the display of the royal banner, it was levelled with the ground. It soon appeared that the governor and chancellor, the latter especially, had many friends; and in particular Kennedy bishop of St. Andrew's, nephew to James I., who sided with them from the dread and hatred they bore to Douglas. Crichton thus soon found himself at the head of a body of men; and, while Forrester was carrying fire and sword into his estates and those of the late governor, his own lands and those of the Douglasses were overrun. Corstorphin, Abercorn, Blackness, and other places were plundered; and Crichton carried off from them more booty than he and his adherents had lost. Douglas was so much exasperated by the great losses he had sustained,

that he engaged his friends, the earl of Crawford and Alexander Ogilvy of Innerquharity, to lay waste the lands of the bishop of St. Andrew's, whom he considered as the chief support of the two ministers. This prelate was not more considerable by his high birth than he was venerable for his virtue; and had, from a principle of conscience, opposed the earl of Douglas and his party. Being conscious he had done nothing that was illegal, he first admonished the earl of Crawford and his coadjutor to desist from destroying his lands; but, finding his admonitions ineffectual, he laid the earl under excommunication. That nobleman was almost as formidable in the northern, as Douglas had been in the southern parts of Scotland. The Benedictine monks of Aberbrothick had chosen Alexander Lindsay, his eldest son, to be judge of their temporalities, until Lindsay proved so chargeable, by the number of his attendants and his high manner of living, to the monks, that their chapter removed him from his post, and substituted in his place Alexander Ogilvy of Innerquharity, guardian to John Ogilvy of Airley, who had an hereditary claim upon the bailiwick. This, notwithstanding their former intimacy, created an irreconcilable difference between the two families. Each competitor strengthened himself by calling in the assistance of his friends; and the lord Gordon taking part with the Ogilvies, to whom he was paying a visit, both parties immediately mustered in the neighbourhood of Aberbrothick. The earl of Crawford, who was at Dundee, immediately posted to Aberbrothick, and, placing himself between the two armies, demanded an interview with Ogilvy; but, before his request could be granted, he was killed by a common soldier. His death exasperated his friends; and a bloody conflict ensued, which ended to the advantage of the Lindsays, that is, the earl of Crawford's party. On that of the Ogilvies were killed Sir John Oliphant of Aberdalgy, John Forbes of Pitsligo, Alexander Barclay of Gartley, Robert Maxwell of Teling, Duncan Campbell of Campbellfether, William Gordon of Burrowfield, and others. With these gentlemen, about 500 of their followers are said to have fallen. Innerquharity was taken prisoner, and carried to the earl of Crawford's house at Finhaven, where he died of his wounds; but lord Gordon escaped by the swiftness of his horse. This battle seems to have kindled the flames of civil discord all over the kingdom. No regard was paid to the magistracy, nor to any but the clergy. The most numerous, fiercest, and best allied family wreaked its vengeance on its foes, either by force or treachery; and the enmity that actuated the parties stifled every sentiment of honor and humanity. The Lindsays, secretly abetted by the earl of Douglas, carried fire and sword through the estates of their enemies; and all the north of Scotland presented scenes of murder and devastation. In the west, Robert Boyd of Dunchal, governor of Dumbarton, treacherously surprised Sir James Stuart of Achmynto, and treated his wife with such inhumanity that she expired in three days in Dumbarton castle. The castle of Dunbar was taken by Patrick Hepburn of Hales. Alex-

ander Dunbar dispossessed the latter of his castle of Hales; but it was retaken by the partisans of the earl of Douglas, whose tenants in Annandale behaved with peculiar fierceness and cruelty. At last the gentlemen of the country, unconnected with these robbers and murderers, shut themselves up in their several houses; each of which in those days was a petty fortress, victualled, and provided in the best manner they could. This seems to have been the first measure that composed the public commotions. The earl of Douglas was sensible that the clergy and the disinterested part of the kingdom considered him as the source of the calamities which the nation suffered; and that James himself would soon be of the same opinion. He therefore sought to avail himself of the juncture, by forming secret but strong connexions with the earls of Crawford, Ross, and other great noblemen, who wanted to see their feudal power restored. The queen dowager and her husband, during this public confusion, had retired to the castle of Dunbar, while it was in Hepburn's possession, where she died soon after. She left by her second husband three sons; John, who in 1455 was made earl of Athole; James, who in 1469, was created earl of Buchan; and Andrew who became bishop of Murray. As the earl of Douglas was an enemy to the queen-dowager's husband, the latter retired to England, where he obtained a pass to go abroad; but, being taken at sea by Flemish pirates, died in confinement. The great point between the king and Sir William Crichton, whether the latter should give up the castle to his majesty, remained still undecided; and by the advice of the earl of Douglas, who had been created lieutenant of the kingdom, it had now suffered a nine months' siege. Crichton and his followers were offered a full indemnity for past offences, and restoration to the king's favor: when he accepted of the conditions, but refused to act in any public capacity till they were confirmed by a parliament. This was soon held at Perth, and he was restored to his estate and honors. By this reconciliation between Douglas and Crichton, the former was left at full liberty to prosecute his revenge against lord Callendar, the late governor, and this he did with rigor. The governor himself, Sir James Dundass of Dundass, and Sir Robert Bruce of Clackmannan, were forced to save their lives by the loss of their estates; but they were sent prisoners to the castle of Dumbarton. Alexander, the governor's eldest son, and two other gentlemen of his name and family, were condemned to lose their heads. Lindsay gives an extract of the speech which Alexander Livingstone, one of the most accomplished gentlemen of his time, made upon the scaffold, in which he complained with great bitterness of the cruel treatment his father, himself, and friends had undergone; and that he suffered by a packed jury of his enemies.

The king being about eighteen years of age, it was now thought proper that a suitable consort should be provided for him; and, after various consultations, Mary, the daughter of Arnold duke of Gueldrés, was chosen, at the recommendation of Charles VII. of France. This produced

an immediate rupture with England. The earls of Salisbury and Northumberland entered Scotland at the head of two armies. The former burnt the town of Dumfries, as the latter did that of Dunbar; while Sir John Douglas of Balveny made reprisals by plundering the county of Cumberland, and burning Alnwick. Upon the return of the English to their own country, additional levies were made, and a fresh invasion of Scotland was resolved upon under the earl of Northumberland, who had a lieutenant, whom the Scots, from the bushiness and color of his beard, called Magnus with the red mane. He was an excellent officer, having been trained in the French wars; and is said to have demanded no other recompense for his services, from the English court, than that he should enjoy all he could conquer in Scotland. The Scots, in the mean time, had raised an army commanded by George Douglas earl of Ormond, and under him by Wallace of Craigie, with the lords Maxwell and Johnston. The English, having passed Solway Frith, ravaged all that part of the country which belonged to the Scots; but, hearing that the earl of Ormond was approaching, called in their parties, and fixed their camp on the banks of the Sark. Their advanced guard was commanded by Magnus; their centre by the earl of Northumberland; and their rear, which was composed of Welsh, by Sir John Pennington, an officer of courage and experience. The right wing of the Scots was commanded by Wallace, the centre by the earl of Ormond, and their left wing by the lords Maxwell and Johnston. Before the battle, the earl of Ormond endeavoured to inspire his men with high resentment against the English, who, he said, had treacherously broken the truce. The signal being given, the Scots under Wallace rushed forward upon their enemies; but, as usual, were received by so terrible a discharge from the English archers that their impetuosity must have been stopped, had not their brave leader put them in mind that their forefathers had always been defeated in distant fights by the English, and that they ought to trust only to their swords and spears. They obeyed, and broke in upon the English, commanded by Magnus, with such fury as soon fixed the fortune of the day on the side of the Scots. The slaughter (for both parties fought with the utmost animosity) fell chiefly upon the division commanded by Magnus, who was killed, together with the whole of his body guard of picked soldiers. Sir John Pennington's division, with that under the earl of Northumberland, was likewise routed; and the whole English army, struck by the loss of their champion, fled towards the Solway; where, the river being swelled by the tide, numbers of them were drowned. The loss of the English in slain amounted to at least 3000 men. Among the prisoners were Sir John Pennington, Sir Robert Harrington, and the earl of Northumberland's eldest son, the lord Percy, who lost his own liberty in forwarding his father's escape. Of the Scots about 600 were killed; but none of note excepting the brave Wallace, who died three months after of his wounds. The booty on this occasion is said to have been greater

than any that had fallen to the Scots since the battle of Bannockburn. The rest of the history of this reign is almost entirely a relation of the cabals and conspiracies of the nobles and other chiefs. The earl of Douglas had entered into a confederacy with the earls of Crawford, Moray, and Ross, and appeared on all occasions with such a train of followers as bade defiance to the royal power. This insolence was detested by the wiser part of the nation; and Maclellan, who was nephew to Sir Patrick Gray, captain of the king's guard, refused to give any attendance upon the earl. This inoffensive behaviour was by the latter considered as a kind of treason, and seizing upon Maclellan's house and person, he sent him prisoner to the castle of Douglas. As Maclellan was a gentleman of great worth and reputation, his uncle Sir Patrick applied to James in his favor; who wrote and signed a letter for his release: and, upon Gray's delivering this letter to Douglas at his castle, the latter seemed to receive it with the highest respect, and to treat Gray with hospitality; but in the mean time he gave private orders that Maclellan's head should be struck off, and his body exposed upon the green before the castle. After dinner the earl told Gray that he was ready to obey the king's commands; and, conducting him to the green, showed him the lifeless trunk. Upon this Gray mounted his horse, and, trusting to his swiftness for safety, was pursued by the earl's attendants to the gates of Edinburgh. The conspiracy against James's government was now no longer a secret. The lords Balveny and Hamilton, with such a number of other barons and gentlemen, had acceded to it, that it was thought to be more powerful than all the force the king could bring into the field. Even Crichton advised James to dissemble. The confederates entered into a solemn bond and oath never to desert one another: all who did not enter into this association were treated as enemies to the public; their lands were destroyed, their effects plundered, and they themselves imprisoned or murdered. Drummond says that Douglas was now able to bring 40,000 men into the field; and that his intention was to have usurped the crown. When James invited him to a conference in the castle of Stirling, he offered to comply, provided he had a safe conduct; which was expedited in the form and manner required. The earl began his march with his usual great retinue, and arrived at Stirling on Shrove Tuesday. He was received by the king as if he had been the best of his friends, and admitted to sup with his majesty, while his attendants were dispersed in the town. The entertainment being over, the king told the earl, 'That, as he was now of age, he was resolved to be the father of all his people, and to take the government into his own hands; that he, therefore, had no reason to be under any apprehensions from his old enemies Callendar and Crichton; that there was no occasion to form any confederacies, as the law was ready to protect him; and that he was welcome to the principal direction of affairs under the crown, and to the first place in the royal confidence; nay, that all former offences done by himself and his friends should be pardoned.'

This speech was the very reverse of what the earl of Douglas expected. It rendered him, indeed, the first subject of the kingdom; but still he was controllable by the civil law. In short, upon the king's peremptorily putting the question to him, he not only refused to dissolve the confederacy, but upbraided the king for his government. This produced a passionate rejoinder on the part of James; but the earl represented that he was under a safe conduct, and that the nature of the confederacy was such that it could not be broken but by the common consent of all concerned. The king insisted upon his setting the example; and, the earl continuing more and more obstinate, James stabbed him with his dagger, and armed men, rushing into the room, finished the slaughter. After the death of the earl of Douglas the confederacy came to nothing. The insurgents excused themselves as being too weak for such an enterprise; and were contented with trailing the safe conduct at a horse's tail, and proclaiming by trumpets and horns the king a perjured traitor. They proceeded no farther, and each departed to his own habitation, after agreeing to assemble with fresh forces about the beginning of April. James lost no time in improving this short respite; and found the nation in general much better disposed in his favor than he had reason to expect. The intolerable oppressions of the great barons made his subjects esteem the civil far preferable to the feudal subjection, and even the Douglasses were divided among themselves; for the earl of Angus and Sir John Douglas of Dalkeith were among the most forward of the royalists. James at the same time wrote letters to the earl of Huntly, to all the noblemen who were not parties in the confederacy, and to the ecclesiastics. Before the effect of those letters could be known, the insurgents had returned to Stirling (where James still kept himself upon the defensive); repeated their insolence, and the opprobrious treatment of his safe conduct; and at last plundered the town, and laid it in ashes. Being still unable to take the castle, partly through their own divisions, and partly through the diversity of their operations, they left Stirling, and destroyed the estate of Sir John Douglas of Dalkeith, whom they considered as a double traitor. They then besieged his castle; but it was so bravely defended by Parick Cockburn, a gentleman of the family of Langton, that they raised the siege. All this time the unhappy country was suffering the most cruel devastations; for matters were now come to such extremity that it was necessary for every man to be a royalist or a rebel. The king was obliged to keep on the defensive; and, though he had ventured to leave the castle of Stirling, he was in no condition to face the rebels. They were in possession of all the strong passes by which his friends were to march to his assistance; and he even consulted with his attendants on the means of escaping to France, where he was sure of an hospitable reception. He was diverted from that resolution by bishop Kennedy and the earl of Angus, who was himself a Douglas, and prevailed upon to wait for the event of the earl of Huntly's attempts. This nobleman, who was

descended from the Seatons, but by marriage inherited the great estates of the Gordons in the north, had raised an army for James, to whose family he and his ancestors, by the Gordons as well as the Seatons, had been always devoted. James was not mistaken in the high opinion he had of Huntly; and in the mean time he issued circular letters to the chief ecclesiastics and bodies politic of his kingdom, setting forth the necessity he was under to proceed as he had done, and his readiness to protect all his loyal subjects against the power of the Douglasses and their rebellious adherents. Before those letters could have any effect, the rebels had plundered the defenceless houses and estates of all who were not in their confederacy. The indignation which the public had conceived against the king, for the violation of his safe conduct, began now to subside; and the behaviour of his enemies seemed to justify what had happened. The forces he had assembled being unable, as yet, to act offensively, he resolved to wait for the earl of Huntly, who by this time was at the head of a considerable army, and had begun his march southwards. He had been joined by the Forbeses, Ogilvies, Leslies, Grants, Irvings, and other relations and dependents of his family; but, having advanced as far as Brechin, he was opposed by the earl of Crauford, the chief ally of the earl of Douglas, who commanded the people of Angus, and all the adherents of the rebels in the neighbouring counties, headed by foreign officers. The two armies joining battle, on the 18th of May, victory was for some time in suspense; till one Coloss of Bonnymoon, or Balnamuin, on whom Crauford had great dependence, but whom he had imprudently disobliged, came over to the royalists with the division he commanded, which was the best armed part of Crauford's army. His defection gave the fortune of the day to the earl of Huntly, as it left the centre flank of Crauford's army entirely exposed. He himself lost one of his brothers; and fled with another, Sir John Lindesay, to his house at Finhaven, where he declared, 'That he would be content to remain seven years in hell, to have in so timely a season done the king his master that service the earl of Huntly had performed, and carry that applause and thanks he was to receive from him.' No author informs us of the loss of men on either side, though all agree that it was very considerable upon the whole. The earl of Huntly lost two brothers, William and Henry; and to indemnify him for his services, and for the presents he had made to his followers, the king gave him the lands of Badenoch and Lochaber. The battle of Brechin was not immediately decisive in favor of the king, but proved so in its consequences. The earl of Moray, a Douglas likewise, took advantage of Huntly's absence to harass and ravage the estates of all the royalists in the north; but Huntly, returning from Brechin with his victorious army, drove the enemy into his own county of Moray, and afterwards expelled him even thence. James was now encouraged, by the advice of his kinsman bishop Kennedy, to proceed against the rebels in a legal manner, by holding a parliament at Edinburgh, to which the confederated lords were

summoned; and, upon their non-appearance, declared traitors. This proceeding seemed to make the rebellion rage more fiercely; and at last the confederates disowned their allegiance to James. The earls of Douglas, Crauford, Ormond, Moray, the lord Balveny, Sir James Hamilton, and others, signed public manifestoes, which were pasted on the doors of the principal churches, importing 'that they were resolved never to obey any command or charge, nor answer any citation for the time coming; because the king, so far from being a just master, was a bloodsucker, a murderer, a transgressor of hospitality, and a surpriser of the innocent.' These atrocious proceedings did no service, however, to their cause. The earl of Huntly continued victorious in the north, where he and his followers, in revenge for the earl of Moray's having burnt his castle of Huntly, ravaged all Moray's estate north of the Spey. When he came to Forres, he burnt one side of the town because it belonged to the earl, and spared the other, the property of his own friends. James thought himself, from the behaviour of Douglas and his adherents, now warranted to come to extremities; and, marching into Annandale, he carried fire and sword through all the estates of the Douglases. The earl of Crauford destroyed the lands of the people of Angus, and of all others who had abandoned him at the battle of Brechin. James, returning from Annandale to Edinburgh, marched northwards to Angus, to reduce the earl of Crauford, who had hitherto deferred throwing himself at the king's feet, only in hopes that better terms might be obtained from James for himself and his party. Perceiving that the earl of Douglas's obstinacy had put an end to all hopes of a treaty, he resolved to make a merit of breaking the confederacy, by being the first to submit. James, having arrived in Angus, was continuing his march through the country, when the earl and some of his chief followers fell on their knees before him on the road, bare-headed and bare-footed; the earl acknowledging his crimes, and imploring forgiveness. James was then attended by his chief counsellors, particularly bishop Kennedy. He asked their advice; which proving merciful, James promised to the earl and his followers restitution of all their estates and honors. The earl, in gratitude, before the king left Angus, joined him with a troop of his friends and followers; and, attending him to the north, was extremely active in suppressing all the remains of the rebellion there. The submission of the earl of Crauford was followed by that of the earl of Douglas; but he soon resumed his rebellious practices, and in 1454 raised an army to fight against the king. The king erected his standard at St. Andrew's, marched thence to Falkland, and ordered all the forces of Fife, Angus, Strathern, &c., to rendezvous at Stirling; which they did to the number of 30,000. Douglas assembled his forces, which amounted to 40,000, some say 60,000 men, on the south bank of the Carron, between Stirling and Abercorn. Bishop Kennedy had advised the king to divide his enemies by offering them pardon separately; and thus in a few days the earl was

deserted by all his numerous army, excepting about 100 of his nearest friends and domestics, with whom he retired towards England. However, in his journey southward, he raised a considerable body of forces, consisting of his own tenants, of outlaws, robbers, and borderers, with whom he renewed his depredations on the loyal subjects of the king. He was opposed by the earl of Angus, who continued firm in the royal cause. An engagement ensued at Ancrum muir; where Douglas was entirely defeated, and he himself with great difficulty escaped to an adjacent wood. His estates were afterwards forfeited to the king. The rest of the reign of James II. was spent in internal regulations for the good of his people. He was killed in 1460 at the siege of Roxburgh castle, by the bursting of a cannon. This siege he had undertaken in favor of the queen of England, wife of Henry VI., who, after losing several battles, and being reduced to distress, was obliged to apply to him for relief. The nobility who were present concealed his death for fear of discouraging the soldiers; and in a few hours after the queen appeared in the camp, and presented her young son James III. as their king.

James III. was not quite seven years of age at his accession to the crown. The administration devolved on his mother, who pushed the siege of Roxburgh castle with so much vigor that the garrison capitulated in a few days; after which the army ravaged the country, and dismantled the castle of Wark. In 1466 negotiations were begun for a marriage between the young king and Margaret princess of Denmark; and in 1468 the following conditions were stipulated;—

1. That the annual rent hitherto paid for the northern isles of Orkney and Shetland should be for ever remitted and extinguished.
2. That king Christian I. should give 60,000 florins of gold for his daughter's portion, whereof 10,000 should be paid before her departure from Denmark; and that the islands of Orkney should be made over to the crown of Scotland by way of pledge for the remainder; with this proviso that they should return to that of Norway after complete payment.
3. That king James should, in case of his dying before the said Margaret, leave her in possession of the palace of Linlithgow, and castle of Down, in Monteith, with all their appurtenances, and the third part of the ordinary revenues of the crown, to be enjoyed by her during life.
4. But, if she chose to return to Denmark, that in lieu of the said life rent, palace, and castle, she should accept of 120,000 florins of the Rhine; from which sum the 50,000 due for the remainder of her portion being deduced and allowed, the islands of Orkney should be reannexed to the crown of Norway. When these articles were agreed upon, Christian found himself unable to fulfil his part of them. Being then engaged in an unsuccessful war with Sweden, he could not advance the 10,000 florins which he had promised to pay down as part of his daughter's fortune. He was therefore obliged to apply to the plenipotentiaries to accept of 2000, and to take a farther mortgage of the isles of Shetland for the other 8000. The Scottish plenipotentiaries, of

whom Boyd, earl of Arran, was one, gratified him in this request; and this concession is thought to have proved fatal to the earl. Certain it is that his father was beheaded for treasonable practices alleged to have been committed long before, and for which he produced a parliamentary indemnity to no purpose; the earl himself was divorced from his wife, the king's sister, and obliged to live in perpetual exile, while the countess was married to another. In 1476 those misfortunes began to come on James which afterwards terminated in his ruin. He had made his brother, the duke of Albany, governor of Berwick; and had entrusted him with very extensive powers upon the borders, where a violent propensity for the feudal law still continued. The Humes and the Hepburns, then the most powerful subjects in those parts, could not brook the duke of Albany's greatness, especially after he had forced them, by virtue of a late act, to part with some of the estates which had been granted them in this and the preceding reign. The pretended science of judicial astrology, by which James was incredibly infatuated, was the most effectual engine that could work their purposes. One Andrew, an infamous impostor in that art, had been brought over from Flanders by James; and he and Schevez, then archbishop of St. Andrew's, concurred in persuading James that the Scottish lion was to be devoured by his own whelps; a prediction that, to a prince of James's turn, seemed of certain accomplishment. The condition to which James reduced himself by his belief in astrology was truly deplorable. The princes upon the continent were smitten with the same infatuation; and the wretches who besieged his person had no safety but by continuing the delusion in his mind. According to Lindsay, Cochran, who had some knowledge of architecture, and had been introduced to James as a master mason, privately procured an old woman, who pretended to be a witch, and who heightened his terrors by declaring that his brothers intended to murder him. James believed her; and the unguarded manner in which the earl of Mar treated his weakness, exasperated him so much, that the earl was arrested, and committed to the castle of Craig-miller; whence he was brought to the Canongate, a suburb of Edinburgh, where he suffered death. The duke of Albany was at the castle of Dunbar when his brother the earl of Mar's tragedy was acted; and James could not be easy without having him likewise in his power. In hopes of surprising him he marched to Dunbar; but the duke, being apprised of his coming, fled to Berwick, and ordered his castle of Dunbar to be surrendered to the lord Evendale, though not before the garrison had provided themselves with boats and small vessels, in which they escaped to England. He ventured to come to Edinburgh; where James was so well served with spies that he was seized, and committed close prisoner to the castle, with orders that he should speak with none but in the presence of his keeper. The duke had probably suspected and provided against this disagreeable event; for we are told that he had agents, who every day repaired to the castle, as if they had come from

court, and reported the state of matters between him and the king, while his keepers were present, in so favorable a light that they made no doubt of his soon regaining his liberty, and being readmitted to his brother's favor. The seeming negotiation at last went on so prosperously, that the duke gave his keepers a kind of a farewell entertainment, previous to his obtaining a formal deliverance; and they drank so immoderately that, being intoxicated, they gave him an opportunity of escaping over the castle wall, by converting the sheets of his bed into a rope. Whoever knows the situation of that fortress will be amazed at the boldness of this attempt; we are told that the duke's valet, the only domestic he was allowed to have, making the experiment before his master, broke his neck; upon which the duke, lengthening the rope, slid down unhurt, and went on board a ship which his friends had provided, and escaped to France. In 1482 the king began to feel the bad consequences of taking into his favor men of worthless characters. His great favorite at this time was Cochran, whom he had raised from a low station to the dignity of earl of Mar. All historians agree that this man made a most infamous use of his power. He obtained at last a liberty of coinage, which he abused so much as to endanger an insurrection; for he issued a base coin called black money by the common people, which they refused to take in payments. His skill in architecture had first introduced him to James; but he maintained his power by other arts; for, knowing that the king's predominant passion was the love of money, he procured it by the meanest and most oppressive methods. James had other favorites still less worthy of the royal countenance; Hommil, a taylor; Leonard, a blacksmith; Torfian, a dancing-master; and some others. The favor shown to these men gave so much offence to the nobility that, after some deliberation, they resolved to remove the king, with some of his least exceptionable domestics (but without offering any violence to his person), to the castle of Edinburgh; and to hang all his worthless favorites over Lauder bridge, the common place of execution. Their deliberation was not kept so secret as not to come to the ears of his favorites, who, suspecting the worst, wakened James before day-break, and informed him of the meeting. He ordered Cochran to repair to it, and to bring him an account of the proceedings. According to Lindsay, who seems to have had very minute information as to this event, Cochran, rudely knocked at the door of the church, just after the assembly had finished their consultation; and, upon Sir Robert Douglas of Lochleven informing them that the earl of Mar demanded admittance, the earl of Angus ordered the door to be thrown open; and, rushing upon Cochran, pulled a massy gold chain from his neck, saying, that a rope would become him better; while Sir Robert Douglas stripped him of a costly hunting horn he wore by his side, telling him he had been too long the hunter of mischief. Cochran, astonished, asked them whether they were in jest or earnest, but they soon convinced him they were in earnest, by pinioning down his arms with a halter. The

earl of Angus, with some of the chief lords, attended by a detachment of troops, then repaired to the king's tent, where they seized his other favorites, Thomas Preston, Sir William Rogers, James Hommil, William Torrfan, and Leonard, and upbraided him in rude terms with his misconduct in government, and even in private life. James only intereaded for the safety of a young gentleman, Ramsay of Balmain. Coehran, with his other favorites, were hanged over Lauder bridge as proposed; and he himself was conducted, under easy restraint, to the castle of Edinburgh. Though confined, he here behaved with great spirit; and refused to pardon those who had confined him, or had any hand in the execution at Lauder. At last, however, he was relieved by the duke of Albany, at the queen's desire. He accomplished his deliverance, as some say, by surprising the castle of Edinburgh; others say the gates were opened, upon a formal requisition made by two heralds; the king then repaired to the abbey of Holyrood-house with his brother, who acted now as his first minister. All the lords who were near the capital came to pay him their compliments; but James was so much exasperated at what had happened that he committed sixteen of them prisoners to the castle. After his release James granted a patent to the citizens of Edinburgh, and enlarged their privileges. In 1487 he finished the secret negotiations in which he had engaged with Henry VII. king of England. The principal articles agreed upon between the two monarchs were, That king James's eldest son should marry Catherine, the third daughter of Edward IV., and sister to the princess Elizabeth, then queen of England; and that James, who was now a widower, should marry queen Elizabeth. A third marriage was also to be concluded between the duke of Rothesay and another daughter of Edward IV. To complete these treaties, and end all controversies concerning the town of Berwick, which the king of Scotland much desired to possess, a congress was to be held the ensuing year. In the mean time a most powerful confederacy was formed against the king; the origin of which was his passion for architecture. Being pleased with the situation of Stirling castle, he resolved to give it all the embellishments which art could bestow; and about this time made it the chief place of his residence. He raised within it a hall, which at that time was deemed a noble structure; and a college, which he called the chapel royal, endowed with an archdeacon who was a bishop, a subdean, treasurer, chanter, &c., and a double set of the other officers usually belonging to such institutions. The expenses necessary for maintaining these establishments were considerable, and the king had resolved to assign the revenues of the rich priory of Coldingham for that purpose. This priory had been generally held by the Hume family, who, through length of time, considered it as their property; they therefore strongly opposed the king's intention. The dispute seems to have lasted some years; for the former parliament passed a vote annexing the priory to the king's chapel royal; and the parliament of this year had passed a statute strictly prohibiting all persons, spiritual and temporal,

to attempt any thing directly or indirectly, contrary or prejudicial to the said union and annexation. The Humes resented their being stripped of so gainful a revenue, the loss of which affected most of the gentlemen of that name; and they united themselves with the Hepburns, another powerful clan in that neighbourhood, in an association, by which both families engaged to stand by each other, and not to suffer any prior to be received for Coldingham, if he was not of one of their surnames. The lords Gray and Drummond soon joined the association; as did many other noblemen and gentlemen, who had their own causes of discontent. Their agents gave out, that the king was grasping at arbitrary power; that he had acquired his popularity by deep hypocrisy; and that he was resolved to be signally revenged upon all who had any hand in the execution at Lauder. The earl of Angus, who was the soul of the confederacy, advised the conspirators to apply to old earl of Douglas to head them; but that nobleman was now dead to all ambition, and, instead of encouraging the conspirators, pathetically exhorted them to break off all their rebellious connexions, and return to their duty. Finding he could not prevail with them, he wrote to all the numerous friends and descendants of his family, and particularly to Douglas of Cavers, sheriff of Teviotdale, dissuading them from entering into the conspiracy, some of his letters to this effect are still extant. This great man survived the application but a short time; for he died without issue at Lindores, on the 15th of April, 1488; and in him ended the first branch of that noble house. He was remarkable for being the most learned of all the Scotch nobility of his time, and for the comeliness of his person.

James appears to have been no stranger to the proceedings of the conspirators; but, though he dreaded them, he depended upon the protection of the law, as they did upon his pusillanimity. His degeneracy in this respect is remarkable. Descended from a race of heroes, he was the first of his family who had been branded with cowardice. But his conduct at this time fully justifies the charge. Instead of vigorously supporting the execution of the laws in his own person, he shut himself up in his castle of Stirling, and raised a body guard; the command of which he gave to Bothwell, master of his household. He likewise issued a proclamation, forbidding any person in arms to approach the court; and Bothwell had a warrant to see the same put into execution. Though the king's proceedings in all this were perfectly agreeable to law, yet they were given out by his enemies as so many indications of his aversion to the nobility, and served only to induce them to parade the country in more numerous bodies. The connexions entered into by James with Henry alarmed the conspirators, however, and made them resolved to strike the great blow, before he could avail himself of an alliance that seemed to place him above all opposition. The acquisition of Berwick to the crown of Scotland, which was looked upon to be as good as concluded; the marriage of the duke of Rothesay with the daughter of the dowager and sister to the consort

queen of England; and, above all, the strict harmony which reigned between James and the states of his kingdom, rendered them in a manner desperate. Besides the earl of Angus, the earls of Argyle and Lennox favored the conspirators; yet their success may be said to have been entirely owing to his English connexions; which they made use of to affirm that Scotland was soon to become a province of England, and that James intended to govern his subjects by an English force. These allegations inclined many, even of the moderate party, to their cause; and they soon took the field, and appointed their rendezvous; until all the south of Scotland was in arms. James continued to rely upon the authority of his parliament; and summoned, in the terms of law, the insurgents to answer at the proper tribunals for their breaches of the peace. The conspirators, far from paying any regard to his citations, tore them in pieces, buffeted and otherwise maltreated the messengers, and set the laws at open defiance. Even north of the Forth, the heads of the houses of Gray and Drummond spread the spirit of disaffection through the populous counties of Fife and Angus; but the counties north of the Grampians continued firm in their duty. The duke of Rothesay was then a promising youth about fifteen years of age; and the subjecting the kingdom of Scotland to that of England being the chief, if not the only cause urged by the rebels for their appearing in arms, they naturally cast their eyes upon that prince, as his appearance at their head would give strength and vigor to their cause; and in this they were not deceived. James, in the mean time, finding that the inhabitants of the southern provinces were either engaged in the rebellion, or at best observed a cold neutrality, embarked on board of a vessel which was then lying in the frith of Forth, and passed to the north of that river, not finding it safe to go by land to Stirling. Arriving at the castle, he gave orders that the duke of Rothesay should be put under the care of Schaw, of Sauche, whom he had made its governor, charging him not to suffer that prince on any account to depart from the fort. The rebels, giving out that James had fled to Flanders, plundered his equipage and baggage before they passed the Forth; and thus supplied themselves with a large sum of money, which proved of the utmost consequence to their affairs. They then surprised the castle of Dunbar, and plundered the houses of every man to the south of the Forth whom they suspected of being a royalist. James was all this time making a progress, and holding courts of justice in the north, where the great families were entirely devoted to his service, particularly the earls of Huntley, Errol, and Marshal. But every day brought him fresh alarms from the south. The conspirators, notwithstanding the promising appearance of their affairs, found, that in a short time their cause must languish, and their numbers dwindle, unless they were furnished with fresh pretexts, and headed by a person of the greatest authority. While they were deliberating who that person should be, the earl of Angus boldly proposed the duke of Rothesay; and an immediate application was made to Schaw, the young prince's

governor, who secretly favored their cause, and was prevailed upon by a considerable sum of money to put the prince into their hands, and declare for the rebels. James, having ordered all the forces of the north to assemble, hurried to Perth, where he appointed the rendezvous of his army, which amounted to 30,000 men. Among the other noblemen who attended him was the famous lord David Lindsay of the Byres (an officer of great courage and experience, having long served in foreign countries), who headed 3000 foot and 1000 horse, mostly raised in Fifeshire. Upon his approaching the king's person, he presented him with a horse of remarkable spirit and beauty, and informed his majesty that he might trust his life to his agility and sure-footedness. The lord Ruthven, who was sheriff of Strathern, and ancestor to the unfortunate earls of Gowry, joined James at the head of 3000 well armed men. The whole army being assembled, James proceeded to Stirling; but was astonished, when he was not only denied entrance into the castle, but saw the guns pointed against his person, and understood, for the first time, that his son was at the head of the rebels. Schaw pretended that the duke of Rothesay had been carried off against his will; but the king's answer was, 'Traitor, thou hast deceived me; and if I live I shall be revenged on thee, and thou shalt be rewarded as thou hast deserved.' James lay that night in the town of Stirling, where he was joined by all his army; and, understanding the rebels were advancing, he formed his line of battle. The earl of Athol, his uncle, who was trusted by both parties, proposed an accommodation; which was effected, according to Abercromby and other historians; but the terms are not recorded. The earl of Athol surrendered himself as a hostage into the hands of the rebels. James was sensible of the advantage which public clamor gave to his enemies; and he applied to the kings of France and England, and the pope, for their interposition. His holiness named Adrian de Castello for his nuncio on this occasion, and the two kings threatened to raise troops for the service of James. But he, by a strange fatality, left the strong castle of Edinburgh, where he might have been in safety till his friends reassembled; and, crossing the Forth, made another attempt to be admitted into the castle of Stirling. Again he was disappointed, and informed that the rebels were at Torwood in the neighbourhood, and ready to give him battle. He was at this time in possession of the castle of Blackness; his admiral, Wood, commanded the Forth; and his loyal subjects in the north were upon their march to join him. Hawthornden says that, while he remained at Blackness, he was attended by the earls of Montrose, Glencairn, and lords Maxwell and Ruthven. To give his northern friends time to join him, he proposed a negotiation; but that was soon at end, upon the rebels peremptorily requiring him to resign his crown to his son, that is, to themselves. The latter had been inured to war, and consisted chiefly of borderers, well armed and disciplined; in which they had the advantage of the king's Lowland subjects, who were unaccustomed to arms. The forces of James were at Falkirk; but they soon passed the Car-

ron, encamped above the bridge near Torwood, and made such dispositions as rendered a battle unavoidable. He was encamped at a small brook named Sauchie-burn, near the same spot of ground where the great Bruce had defeated the English under Edward II. The earl of Monteith, the lords Erskine, Graham, Ruthven, and Maxwell, commanded the first line of the king's army. The second was commanded by the earl of Glencairn, who was at the head of the Westland and Highland men. The earl of Crawford, with the lord Boyd and Lindsay of Byres, headed the rear, wherein the king's main strength consisted, and where he himself appeared in person, completely armed, and mounted upon the horse which had been presented to him by Lindsay. The first line of the royalists obliged that of the rebels to give way; but, the latter being supported by the Annandale men and borderers, the first and second line of the king's army were beat back. The little courage James possessed had forsaken him on the first onset; and he put spurs to his horse, intending to gain the banks of the Forth, and to go on board one of Wood's ships. In passing through the village of Bannockburn, however, a woman who was filling her picher at a brook, frightened at the sight of a man in armor galloping full speed, left it behind her; and, the horse taking fright, the king was thrown to the ground, and carried, bruised and maimed, by a miller into his hovel. He immediately called for a priest to make his confession; and, the rustics demanding his name and rank, 'I was,' said he, 'your king this morning.' The woman, running to the door, called in a priest to confess the king: being introduced into the hovel, he saw the king covered with a coarse cloth; and, kneeling by him, he asked James whether he thought he could recover if medically attended? James answering in the affirmative, the villain pulled out a dagger, and stabbed him to the heart. Such is the dark account given of this prince's unhappy end. The name of the person who murdered him is said to have been Andrew Borthwick, a priest, one of the pope's knights. Some pretend that the lord Gray, and others that Robert Stirling of Keir, was the regicide; and even Buchanan is uncertain as to the name of the person who gave him the fatal blow.

It is probable that the royalists lost the battle through the cowardice of James. Even after his flight his troops fought bravely; but they were discouraged on receiving certain accounts of his death. The prince, young as he was, had an idea of the unnatural part he was acting, and before the battle had given a strict charge for the safety of his father's person. Upon hearing that he had retired from the field, he sent orders that none should pursue him; but they were ineffectual, the rebels being sensible that they could have no safety but in the king's death. When that was certified, hostilities seemed to cease; nor were the loyalists pursued. The number of slain must have been considerable, as the earl of Glencairn, the lords Sempil, Erskine, and Ruthven, and other gentlemen of great eminence, are mentioned. As to the duke of Rothesay, who was now king, he appeared inconsolable when

he heard of his father's death; but the rebels endeavoured to efface his grief, by the profusion of honors they paid him as king. Seeing his remorse and anguish, in reflecting on the unnatural part he had acted, they became apprehensive indeed for their own safety. The catastrophe of James III., however, was not yet become public; and it was thought that he had gone aboard some of the ships belonging to Sir Andrew Wood. Willing to indulge the hope as long as possible, the prince desired an interview with the admiral; but the latter refused to come on shore, unless he had hostages for his safety. These being delivered, Sir Andrew waited upon the young king at Leith. He had by messages assured him that he knew nothing of his father; and had even offered to allow his ships to be searched: yet such was the anxiety of the new king that he could not be satisfied till he had examined him in person. Young James had been long a stranger to his father. When Wood, therefore, entered the room, he asked him, 'Are you my father?' 'I am not,' replied Wood, bursting into tears, 'but I was your father's true servant, and while I live I shall be the determined enemy of his murderers.' This did not satisfy the lords, who demanded whether he knew where the king was. The admiral replied in the negative; and upon their questioning him concerning his manœuvres on the day of battle, when his boats were seen plying backwards and forwards, he told them that he and his brother had determined to assist the king in person; but all they could do was to save some of the royalists. 'I would to God,' says he, 'my king was there safely; for I would defend and keep him skaitless from all the traitors who have cruelly murdered him; and I think yet to see the day that shall behold them hanged and drawn for their demerits.' This spirited declaration, and the freedom with which it was delivered, struck the guilty part of the council with dismay; but the fear of sacrificing the hostages procured Wood his freedom, and he was suffered to depart. When he came on board his fleet, he found his brother preparing to hang the two lords who had been left as hostages; and this would certainly have been their fate, had the admiral been longer detained.

The council now removed to Edinburgh, where James IV. was crowned on the 24th of June 1487. In October this year the nobility, and others interested, converted themselves into a parliament, and passed an act by which they were indemnified for their rebellion against their late sovereign; after which the act was exemplified under the great seal of Scotland, that it might be produced in their justification, if called for by any foreign prince. They next proceeded to the arduous task of vindicating their rebellion in the eyes of the public; and so far did they gain upon the new king by flattery, that he consented to summon the lords who had taken part with his father, before the parliament, to answer for their conduct. In consequence of this, no fewer than twenty-eight lords were cited to appear at Edinburgh in the space of forty days. The first upon the list was lord David Lindsay of the Byres, who was called upon to answer for

the cruel coming against the king at Bannockburn with his father, giving him council to have devoured the king's grace here present; and to that effect giving him a sword and a good horse to fortify him against his son.' Lord Lindsay was remarkable for the bluntness of his conversation and the freedom of his sentiments: being irritated by this charge, he delivered himself in such a manner, concerning the treason of the rebellious lords, as abashed the boldest of them; and, as they were unable to answer him, all they could do was to press him to throw himself upon the king's clemency; which he refused to do. His brother, Patrick Lindsay, undertook to be his advocate, and apologised upon his knees for the roughness of his behaviour; upon which Lindsay was released, on entering into recognizance to appear again at an appointed day: however, he was afterwards sent prisoner by the king's order, for a twelve-month, to the castle of Rothesay. The regicides now endeavoured to gain the public favor by affecting a strict administration of justice. The king was advised to make a progress through the kingdom, attended by his council and judges; while, in the mean time, certain noblemen and gentlemen were appointed to suppress all kinds of disorders in their own lands and those adjoining, till the king came to the age of twenty-one. The memory of the late king was branded in the most opprobrious manner. All justices, sheriffs, and stewards, who were possessed of heritable offices, but who had taken up arms for him, were either deprived of them for three years, or rendered incapable of possessing them for ever. All the young nobility, who had been disinherited by their fathers for taking arms against the late king, were, by act of parliament, restored to their successions. At last, to give a kind of proof to the world that they intended only to resettle the state of the nation, without prejudice to the lower ranks of subjects, who did no more than follow the examples of their superiors, it was enacted, 'That all goods and effects taken from the burgesses, merchants, and those who had only personal estates, or, as they are called unlanded men, since the battle of Stirling, were not only to be restored, but the owners were to be indemnified for their losses; and their persons, if in custody, to be set at liberty. Churchmen, who were taken in arms, were to be delivered over to their ordinaries, to be dealt with by them according to the law.' The castle of Dunbar was ordered to be demolished; and some statutes were enacted in favor of commerce, and for the exclusion of foreigners. These last acts were passed with a view to recompense the boroughs, who had been very active in their opposition to the late king. However the lords, before they dissolved their parliament, thought it necessary to give some public testimony of their disapproving the late connexion with England. It was therefore enacted, 'That as the king was now of age to marry a noble princess, born and descended of a noble and worshipful house, an honorable embassy should be sent to the realms of France, Brittany, Spain, and other places, to conclude the matter.' This embassy was to be splendid: and to consist of a bishop, an earl, or

lord of parliament, a secretary, clergyman, and knight. They were to be attended by fifty horsemen; and £5000 was allowed them for expenses: they were empowered to renew the ancient league between France and Scotland; and, in the mean time, a herald, or, as he was called, a trusty squire, was sent abroad to visit the several courts, to find out a proper match for the king. One considerable obstacle, however, lay in the way of this embassy. The pope had laid under an interdict all those who had appeared in arms against James III.; and the party who now governed Scotland were looked upon by all the powers of Europe as rebels. The embassy was therefore suspended for a considerable time, and it was not till 1491 that the pope could be prevailed upon to take off the interdict. In the mean time the many good qualities which discovered themselves in the young king began to conciliate the affections of his people. Being considered, however, as little better than a prisoner in the hands of his father's murderers, several of the nobility made use of that as a pretext for taking arms. The most forward of these was the earl of Lennox, who with 2000 men attempted to surprise the town of Stirling; but, being betrayed by one of his own men, he was defeated, and the castle of Dumbarton, of which he was the keeper, taken by the opposite party. In the north, the earls of Huntley and Marshal, with the lord Forbes, complained that they had been deceived, and declared their resolution to revenge the late king's death. Forbes, having procured the bloody shirt of the murdered prince, displayed it on the point of a lance, as a banner under which all loyal subjects should enlist themselves. However, after the defeat of Lennox, the northern chieftains found themselves incapable of marching southward. The cause of the murdered king was next undertaken by Henry VII. of England, who made an offer to Sir Andrew Wood of five ships to revenge it. The admiral accepted the proposal; but the English behaving as pirates, and plundering indiscriminately all who came in their way, he thought proper to separate himself from them. Upon this James was advised to send for the admiral, offer him a pardon, and a commission to act against the English freebooters. Wood accepted of the king's offer; and, being well provided with ammunition and artillery, he, with two ships only, attacked the five English vessels, all of which he took, and brought their crews prisoners to Leith. This conduct of Wood was highly resented by the king of England. The Scottish admiral's ships had been fitted out for commerce as well as war, and Henry commanded his best sea-officer, Sir Stephen Bull, to intercept him on his return from a commercial voyage to Flanders. Wood had no more than two ships with him: the English admiral had three; and those much larger, and carrying a greater weight of metal. The English took their station at the island of May, in the mouth of the Frith of Forth, and, having come unawares upon the enemy, fired two guns as a signal for their surrender. The Scottish commander encouraged his men as well as he could; and, finding them determined to stand by him,

began the engagement in sight of numberless spectators on both sides of the Frith. The fight continued all that day and was renewed with redoubled fury in the morning; but, in the mean time, the ebb-tide and a south wind had carried both squadrons to the mouth of the Tay. Here the English fought under great disadvantages, by reason of the sand-banks; and, before they could get clear of them, all the three were obliged to submit to the Scots, who carried them to Dundee. Wood treated his prisoners with humanity; and, having afterwards presented them to king James, the latter dismissed them not only without ransom, but with presents, and a letter to king Henry. To this the English monarch returned a polite answer; a truce was concluded, and all differences were accommodated. James all this time had continued to display such moderation in his government, and appeared to have the advantage of his subjects so much at heart, that they became gradually well affected to his government, and in 1490 all parties were fully reconciled; the next year the happiness of his kingdom was completed by the pope taking off his interdict, and giving the king absolution for his father's death. Tranquillity being thus restored, the negotiations concerning the king's marriage began to take place, but met with several interruptions. In 1493 Henry VII. proposed a match between James and his cousin, the princess Catharine; but this was treated with contempt. Henry made in 1495 another offer of alliance with James; proposing a marriage betwixt him and his eldest daughter Margaret. This proposal was accepted: but, at the time in which he was negotiating the marriage, he not only protected Perkin Warbeck, the avowed pretender to the crown of Henry, but invaded England on his account. This conduct was highly resented by the English parliament; but Henry himself forgave even this insult, and the marriage negotiations were resumed. The bride was not more than ten years and six months old; and, being only the fourth degree of blood from James, it was necessary to procure a dispensation from the pope. This being obtained, a treaty of perpetual peace was concluded between the two nations, on the 1st of July, 1503, being the first that had taken place for 170 years, or since the peace of Northampton, between Robert I. and Edward III. One of the great ends that Henry had in view in promoting his marriage was to detach James from the French interest; no sooner, therefore, was the treaty signed, than he wrote to his son-in-law to this purpose; who, however, politely declined to break with his ancient ally. On the 16th of June, the royal bride set out from Richmond in company with her father, who convoyed her as far as Collyweston, the residence of his mother, the countess of Richmond. After passing some days there the king resigned his daughter to the care of the earls of Surrey and Northumberland. On the borders of Scotland a number of her retinue were permitted to take leave; but those who remained still made a royal appearance. At Lamberton church they were met by James, attended by a numerous train of his nobility and officers of state; and at Edinburgh the nuptials

were celebrated with the greatest splendor. On this occasion the Scots vied, we are told, with the most extravagant of their guests in luxury and display. After the celebration of the nuptials James appears to have enjoyed a tranquillity almost unknown to any of his predecessors; and began to make a considerable figure among the European potentates. But the magnificence of his court and embassies, his liberality to strangers and to learned men, his costly edifices, and, above all, the large sums he laid out in ship-building, brought him into some difficulties; and he so far attended to the advice and example of his father-in-law that he supplied his necessities by reviving dormant penal laws, particularly with regard to wardships and old titles of estates. Though he did this without assembling his parliament, yet he found agents who justified his proceedings, in the manner of the English ministers of the day, Empson and Dudley. At last, however, touched with the sufferings of his subjects, he ordered all prosecutions to be stopped. He even went farther: and, sensible of the detestation into which his father-in-law's avarice had brought himself and his administration, he ordered the ministers who had advised him to these shameful courses to be imprisoned; and several of them died in confinement. About this time James applied himself with incredible assiduity to naval affairs; one ship which he built, the *St. Michael*, is supposed to have been the largest then in the world. She was 240 feet long, thirty-six wide within the sides, and ten feet thick. She carried 300 small artillery, twelve cannons, and 1000 men. The expense was £30,000. He worked with his own hands in building it, and Scotland at this time produced excellent seamen. The first essay of his arms by sea was in favor of his kinsman John of Denmark. This prince was brother to Margaret queen of Scotland; and had partly been called to the throne of Sweden, and partly possessed it by force. He was opposed by the administrator Sture, whom he pardoned after he was crowned. Sture, however, renewing his rebellion, and the Norwegians revolting, John was forced to return to Denmark; but left his queen in possession of the castle of Stockholm, which she bravely defended. This heroic princess became a great favorite with James; and several letters that passed between them are extant. The king of Denmark, next to the French monarch, was the favorite ally of James. It appears, from the histories of the north, that both James and his father had given assistance to him in reducing the Norwegians; and he resolved to become a party in the war against the Swedes, if they continued in their revolt. Previous to this he sent an ambassador to offer his mediation between John and his subjects. The mediation was accepted and the negotiations opened at Calmar. The deputies of Sweden not attending, John prevailed with those of Denmark and Norway to pronounce sentence of forfeiture against Sture and all his adherents. In the mean time the siege of the castle of Stockholm was pressed so warmly that the garrison was diminished to a handful, destitute of all kind of provisions; so that the brave queen was forced to capitulate on

condition that she should be suffered to depart for Denmark; a stipulation perfidiously violated by Sture, she being confined in a monastery. On this occasion James resolved to employ his maritime power. He wrote a letter, conceived in the strongest terms, to the archbishop of Upsal, the primate of Sweden, exhorting him to employ all his authority in favor of the king; and another to the Lubeckers, threatening to declare war against them, as well as the Swedes, if they continued to assist the rebels. According to Hollingshed, James, in consequence of king John's application, gave the command of an army of 10,000 men to the earl of Arran, who replaced John upon his throne. It is certain that, had it not been for James, John must have sunk under his enemies. Sture, hearing that a considerable armament was fitting out in Scotland, agreed to release the queen, and to conduct her to the frontiers of Denmark; where he died. By this time James's armament, which was commanded by the earl of Arran, had set sail; but, perceiving that all matters were adjusted between John and the Swedes, the ships returned sooner than James expected, 'which,' says he, in a letter he wrote afterwards to the queen, 'they durst not have done, had they not brought me an account that her Danish majesty was in perfect safety.' The severity of John having occasioned a fresh revolt James again sent a squadron to his assistance, which appeared before Stockholm, and obliged the Lubeckers to conclude a new treaty. James, having thus discharged his engagements with his uncle, turned his attention towards the Flemings and Hollanders, who had insulted his flag, on account of the assistance he had afforded the duke of Gueldres. He gave the command of a squadron to Barton; who put to sea and treated all the Dutch and Flemish traders who fell into his hands as pirates, sending their heads in hogsheads to James. Soon after Barton returned to Scotland, and brought with him a number of rich prizes. James was then so much respected upon the continent that no resentment was shown either by the court of Spain, whose subjects those Netherlanders were, or any other power in Europe, for this vigorous proceeding. The peace with England continued all the reign of Henry VII.; nor did our Henry VIII., though he had not the same reason as his father to conciliate the Scots, for some time show any disposition to break with them. A breach, however, did soon take place. About thirty years before John Barton, a relation of the above commander, was taken in a trading vessel by two Portuguese captains; and Barton, with several Scotchmen, were killed in defending their property. The action was esteemed cowardly as well as piratical, because it was done under the protection of a large Portuguese squadron. The ship and the remaining part of the crew, with the cargo, were carried to Portugal, whence no redress could be obtained; and James III. granted letters of marque to John and Robert Bartons, heirs to the Barton who had been murdered. Upon the accession of James IV. the letters of marque were recalled, and a friendly correspondence was entered into between James and the king

of Portugal. No redress, however, was to be had from the latter; and Robert Barton being made a prisoner, and his ship a prize, was detained in Zealand, till James procured his deliverance by applying in his favor to the emperor Maximilian. Sir Andrew Barton took part in the quarrel; and, having obtained a like letter of marque, he made dreadful depredations on the Portuguese trade. According to English authors, he also plundered many English ships, on pretence of their carrying Portuguese property, and made the navigation of the narrow seas dangerous to Englishmen. The court of London received daily complaints of his depredations; but, Henry being averse to quarrel with James, these complaints were heard with coldness. The earl of Surrey had then two sons; and he declared to Henry's face that, while he had an estate that could furnish out a ship, or a son who was capable of commanding one, the narrow seas should not be thus infested. Henry could not discourage his generous offers; and letters of marque were accordingly granted to the two young noblemen, Sir Thomas and Sir Edward Howard. The prizes that Barton had taken had rendered his ships immensely rich, consequently they were heavy laden, and unfit for fighting; while the ships of the Howards were clean, and of a superior force. After encountering a great deal of foul weather, Sir Thomas Howard came up with the *Lyon*, commanded by Sir Andrew Barton; and Sir Edward fell in with the *Unicorn*, Barton's other ship. The event was such as might be expected from the inequality of the match. Barton was killed, while he was animating, with his whistle, his men to hold out to the last; and both the Scottish ships, being taken, were carried in triumph to London. James could never forgive the loss of this brave officer. He sent to demand satisfaction; but was answered that Barton and his crew were lawless pirates, and that what had been done against them ought never to be resented amongst sovereign princes. James asserted that Barton was no pirate, because he bore his commission; and that he ought to have been convicted of piratical acts before he was treated as guilty. Henry intimated to James that he was willing to accommodate the affair by way of negotiation; but James rejected the proposal with disdain. Various negotiations took place concerning this and other affairs till 1513; when James, fully resolved upon a war with England, thought it highly necessary that it should have the sanction of his parliament, which he accordingly assembled. The young nobility were not only inspired with the sentiments of James, but had been won over by the French; and the majority of them, as well as of the clergy, were ripe for a war with England. The older statesmen, on the other hand, who saw the flourishing state of Scotland, arising from a long peace, dreaded the ruinous consequences of a war. The queen naturally headed this party; and she was joined by the earl of Angus and the sober part of the nobility. But their arguments made no impression on James, who had received a present from Louis XI. of four ships laden with wine and flour, and two

ships of war completely equipped. He promised to the French queen, upon his honor, that he would take the field against the English; and she had sent him a fresh letter, gently reproaching him for want of gallantry. In short, the reasonings of the wisest and best part of the nobility were over-ruled, and an expedition against England was resolved on. The earl of Hume, who was chamberlain of Scotland, was, at this juncture, at the head of 7000 or 8000 men, with whom he committed great devastation on the English borders. Henry's queen, Catharine of Spain, whom he had left regent of his dominions, issued a commission of array, directed to Sir Thomas Lovel, K. G., for assembling the militia of the counties of Nottingham, Derby, Warwick, Leicester, Stafford, Rutland, Northampton, and Lincoln. The management of this war, however, was chiefly committed to the earl of Surrey, who assembled the militia of Chester, Lancaster, Northumberland, Westmoreland, Cumberland, and the bishopric of Durham. Hume had by this time laid great part of Northumberland waste; and his men were returning home laden with booty. The earl of Surrey, resolving to intercept them, ordered Sir William Bulmer to form an ambush with 1000 archers, at a place called Broomhouse. Bulmer executed his orders with great success. The archers assaulted the Scots all at once, and made such good use of their arrows that their main body was put to flight, 500 killed, and 400 taken, with lord Hume's standard; the greatest part of the plunder being recovered at the same time. The Scots styled this expedition the Ill raid. James was more exasperated than ever by this defeat, and continued his preparations for invading England with additional vigor. His queen did all that became a prudent wife to divert him from his purpose. She endeavoured to work upon his superstition, by recounting to him her ominous dreams. James treating these as mere fictions of the brain, she had recourse to other arts. While he was waiting at Linlithgow for the arrival of his army from the north and the Highlands, he assisted one afternoon at the vespers in the church of St. Michael. Being placed in one of the canons' seats, a venerable man entered, dressed in a long garment of an azure color, and girded round with a towel or roll of linen, his forehead bald, and his yellow locks hanging down his shoulders; in short, he was dressed and formed like St. Andrew, the apostle of Scotland. The church being crowded, this personage made his way to the king's seat; and, leaning over it, said, 'Sire, I am sent hither to intreat you for this time to delay your expedition, and to proceed no farther in your intended journey; for, if you do, you shall not prosper in your enterprise. I am further charged to warn you, if you be so refractory as to go forward, not to use the acquaintance, company, or counsel of women, as ye tender your honor, life, and estate.' After delivering these words he retired through the crowd, and was seen no more, though diligent enquiry was made after him. That this scene was enacted, seems to be past dispute; for Sir David Lindsay, who was then a young man, and present in the church, reported it both to Buchanan and Lind-

say the historians. It is the opinion of historians that the whole was a contrivance of the queen, to whose other afflictions the stings of jealousy were now added. In one of the Scottish inroads into England, one Heron, the proprietor of the castle of Ford, had been taken prisoner and sent to Scotland; where he was detained on a charge of murder, of which he seems to have been innocent. The English historians mention this as having passed after James entered England; but, from the latter part of the supposed phantom's speech, it is probable that it happened before; and that Heron's wife and beautiful daughter had been for some time soliciting James for his deliverance. Be that as it may, James was smitten with the charms of the daughter; and her mother, who was a most artful woman, knew how to avail herself of the conquest. Pretending that she had interest enough to procure the release of lord Johnston and Alexander Home, who were prisoners in England, she was permitted by James to keep a constant correspondence with the earl of Surrey, to whom she is said to have betrayed all James's secrets and measures.

The rendezvous of James's army was at the Barrow-muir, to which James repaired; and, having given orders for the march of his artillery, he lodged at the abbey of Holyrood House. While he was there, another attempt was made to divert him from his purpose of invading England: but James, deaf to all solicitations, mustered his army; and on the 22d August passed the Tweed, encamping that night near the banks of the Twissel. On his arrival at Twisselhaugh, on the 14th, he called an assembly of his lords, and declared that the heirs of all such as should die in the army, or be killed by the enemy during his stay in England, should have their wards, relief, and marriages, of the king; who, upon that account, dispensed with their age. This was the crisis of that prince's fate. Abandoned to his passion for his English mistress, she prevailed with him, at her mother's instigation, to trifle away his time for some days; during which interval the junction of the English army was formed. The earl of Surrey, the English general, was then at Pomfret; but ordered the landholders of the neighbouring counties to certify to him in writing what number of men each could furnish, charging them to be ready at an hour's warning; and laid his plan so as not to bring his army into the field till James had advanced so far into England as to render it difficult for him to retire without a battle. This precaution assisted the lady Ford in persuading James that there was no danger in the delay. In the mean time the earl of Surrey ordered the governors of Berwick and Norham, the two strongest places on the frontiers of England, to prepare for a vigorous resistance; and directed them to certify how long they could hold out; in hopes that, if they made a resolute defence, James would march on, and leave them in his rear. The governor of Norham's answer was, that his castle was so well provided as to leave him no doubt, in case of a siege, to be able to defend it till king Henry should return from abroad and relieve it in per-

son. James, however, besieged it on the 25th of August, and battered it so furiously that he took it by capitulation on the sixth day. James then proceeded to the castle of Etal, belonging to the family of Manners, which he took and demolished likewise, as he also did Wark, and arrived before the castle of Ford. The Scottish army is generally allowed to have consisted of at least 50,000 men when it passed the Tweed. At this time it was encamped on the heights of Cheviot, in the heart of a country naturally barren, and now desolate through the precautions taken by the English general. Being obliged to extend their quarters, for the benefit of subsistence, the mercenary part of them had acquired a considerable plunder, with which, as usual, they retired to their own country, as many more did for want of subsistence. The earl of Surrey knew their situation, and ordered the rendezvous of his army, first at Newcastle, and then near Northam, having certain intelligence of the vast desertions daily happening in the Scottish army. The wetness of the season rendered his march, especially that of the artillery, extremely difficult; but, being joined by several persons of distinction, he arrived on the 3d of September at Alnwick, where he was reinforced by 5000 hardy veteran troops, sent from the English army on the continent; so that his army now consisted of 26,000 men, all completely provided for the field. James having, in the manifesto which he dispersed on his entering England, given the death of Barton as one of the causes of his invasion, the lord-admiral had prevailed with Henry to send him upon this service; and he informed James by a letter that he intended to justify the death of that pirate in the front of the English army. By this time the army of James was, by desertion and other causes, reduced to less than half its numbers; but the chief misfortune attending it was his own conduct. His indolence, inactivity, and scandalous amours, at such a season, had disgusted several of his greatest and best friends; some of whom suspected a correspondence between the English lady and the earl of Surrey. James was deaf to all their remonstrances; until the earl of Angus declared that he was resolved to return home, as he foresaw the ruin of the army was inevitable. He accordingly withdrew to Scotland, but left behind him his two sons. Lord Hume and the earl of Huntley were likewise discontented. The former had brought his men into the field; but, according to some historians, with a design rather to betray than to serve James; but Huntley, though he disliked his conduct, remained firmly attached to his person. The defection or backwardness of those great men seemed to make no impression upon James. He had chosen a strong camp in the neighbourhood of Ford, on the side of a mountain called Flodden Hill; and separated from the English army by the river Till. This advantageous situation put the earl of Surry under great difficulties; for it rendered the Scottish army inaccessible, as it was fortified by artillery, and was well supplied with provisions. The earl drew up a manifesto, with which he charged Rouge Croix herald, who was attended by a trumpet. It contained some pro-

posals for an exchange of prisoners, which seems to have been calculated to give the lady Ford the more credit with James; but concluded with reproaches for his perfidious invasion of England, and a defiance to a general battle. The herald was farther charged with a verbal commission to James, that the earl of Surry had issued orders that no quarter should be given to any of the Scottish army but the king. A council of war was called on this occasion; in which the earl of Huntly and others made strong remonstrances against a general engagement. They showed how fatal it must be to Scotland, should it prove unsuccessful; and that the wisest course James could follow was to return home, where, if he was pursued by the enemy, he could fight to great advantage. Huntly, however, added that he was equally ready to share in his majesty's danger as his glory. Other noblemen, and the French ambassador, represented a retreat as disgraceful to the nobility of Scotland and the arms of James, and used many romantic arguments, which but too well suited with the king's disposition. According to Drummond, the council were of opinion that the king should immediately besiege Berwick; but the majority were of opinion that it was beneath the dignity of James to fight the earl of Surry at that nobleman's requisition. Patrick lord Lindsay of Byres, who was president of the council, expressed himself so strongly on that head, that James, in a passion, is said by the historian Lindsay to have sworn that if he lived to return to Scotland he would hang that nobleman at his own gate. He ordered Rouge Croix to be called in; and, after treating him with great politeness, sent a message to the earl of Surry by one of his own heralds (Islay), importing that he would give the English battle on the Friday following; and that had he received such a message from the earl even in his own castle of Edinburgh, he would have left that, and all other business, to have fought him. With this message, a manifesto, in vindication of James's conduct, was sent by the same herald. The earl of Surry, who was then so infirm that he was carried about in a sedan or chariot, had foreseen that James would return an answer by one of his own heralds; but, unwilling that he should obtain any knowledge of the situation of the English camp, he ordered proper persons to receive him at two miles' distance, where soon after he attended in person. Islay executed his commission, and the English general dismissed him, after bestowing great compliments upon the honor and courage of James. The earl then ordered his army to march in the line of battle towards Wollerhaugh. There he was joined by Rouge Croix, who gave him an account of the strong situation of the Scottish camp; but the advanced posts of the English army were then within three miles of the enemy, and the earl of Surry found his difficulties daily increasing. The roads were broken up, the swelling of the rivers cut him off from the necessary communications for supplying his army, and nothing but a battle could save him either from being disbanded or destroyed. James seems to have so far regarded the advice of his wisest counsellors,

as not to abandon his strong situation. They endeavoured to persuade him that it was sufficient for his honor, if he did not decline the battle on the day appointed; and that his engagement did not bind him to fight upon disadvantageous ground. The Scots, at the same time, knew of their enemy's distresses; and warmly represented to their king that he wanted nothing but patience to be victorious. The earl of Surry, however, again sent Rouge Croix to inform James that he was ready to give him battle, and James was nettled at this tacit imputation upon his courage. It is certain that he neglected the necessary precautions for guarding the passages of the Till, which the English crossed, partly at a place where it was fordable, and partly at a bridge. While the English were passing the bridge, Borthwick, master of the Scottish artillery, fell upon his knees, and begged permission from James to point his cannon against them; but James answered in a passion that it must be at the peril of his (Borthwick's) head, and that he was resolved to see all his enemies that day on the plain before him in a body. The earl of Surry, after passing the Till, took possession of Braxton, which lay to the right of the Scottish camp; and by that manœuvre cut off the communication of his enemies with the Tweed, and commanded the river below Eton castle. The Scottish generals saw themselves now in danger of being reduced to the same straits in which their enemies had been involved two days before. James had intelligence that this was far from being the intention of the English general; and imagining that the latter's intention was to take possession of a strong camp upon a hill between him and the Tweed, which would give the English a farther command of the country, he resolved to be before-hand with the earl, and gave orders for making large fires of green wood, that the smoke might cover his march along the height, to take advantage of that eminence. But, while this stratagem concealed his march, the movements of the enemy were also concealed from him: for, when he came to the brow of the height, he found them drawn up in order of battle on the plain, so close to where he was that his artillery must overshoot them. A battle was now not only unavoidable, but the only means of saving the Scottish army. James's person was so dear to his troops that many of them dressed themselves as nearly as they could in the same coats of armour and with the same distinctions that James wore that day. His generals had earnestly desired him to retire to a place of safety, where he would be secure in all events; but he obstinately refused to follow their advice; and on the 9th of September, 1513, early in the morning, dispositions were ordered for the line of battle. The command of the van was allotted to the earl of Huntly; the earls of Lennox and Argyle commanded the Highlanders under James: and the earls of Crawford and Montrose led the body of reserve. The earl of Surry gave the command of his van to his son, the lord admiral; his right wing was commanded by his other son, Sir Edward Howard; and his left by Sir Marmaduke Constable. The rear was commanded

by the earl himself, lord Dacres, and Sir Edward Stanley. Under those leaders served the flower of all the nobility and gentry then in England. Lord Hume served under the earls of Crawford and Montrose, and Hepburn earl of Bothwell was in the rear. The first movement of the English army was made by the lord admiral, who suddenly wheeled to the right, and seized a pass at Milford, where he planted his artillery so as to command the most sloping part of the ascent where the Scots were drawn up; and it put them into such disorder that the earl of Huntly found it necessary to attack the lord admiral: he drove him from his post; and the consequence must have been fatal to the English, had not his precipitate retreat been covered by some squadrons of horse under the lord Dacres, which gave the admiral an opportunity of rallying. The earl of Surry now advanced to the front, so that the English army formed one continued line, which galled the Scots with perpetual discharges of their artillery and bows. The Highlanders, as usual, impatient to come to a close fight, rushed down the declivity with their broad swords, without order or discipline, and before the rest of the army, particularly the division under lord Hume, advanced to support them. Their impetuosity, however, made a considerable impression upon the main battle; and, the king bringing up the earl of Bothwell's reserve, the conflict became general. By this time the lord admiral, having again formed his men, came to the assistance of his father, and charged the division under the earls of Crawford and Montrose, who were marching to support the Highlanders, among whom the king and his attendants were fighting on foot: while Stanley, making a circuit round the hill, attacked the Highlanders in the rear. Crawford and Montrose, not being seconded by the Humes, were routed; and thus all that part of the Scottish army which was engaged under the king was completely surrounded by the division of the English under Surry, Stanley, and the admiral. In this situation James acted with a coolness not common to his temper. He drew up his men in a circular form, and their valor more than once opened the ranks of the English, or obliged them to stand aloof, and again have recourse to their bows and artillery. The chief of the Scottish nobility made fresh attempts to prevail with James to make his escape while it was practicable; but he obstinately continued the fight. He saw the earls of Montrose, Crawford, Argyle, and Lennox, fall by his side, with the bravest of his men; and, darkness now coming on, he himself was killed by an unknown hand; while the English, ignorant of the victory they had gained, had actually retreated from the field of battle, with a design of renewing it next morning. This disaster was evidently owing to the romantic disposition of the king, and to the want of discipline among his soldiers; though some writers have ascribed it to the treachery of lord Hume. Many of James's domestics knew and mourned over his body; and it appeared that he had received two mortal wounds, one through the trunk with an arrow, and the other on the head with a ball. His coat of armour was presented to queen Ca-

therine, who informed her husband, then in France, of the victory over the Scots. The loss on both sides, in this engagement, is far from being ascertained; though Polydore Virgil, who lived at the time, mentions the loss of the English at 5000, and that of the Scots at 10,000.

After the death of James IV. the administration devolved on the queen dowager; but she being pregnant, and unable to bear the weight of government, accepted of Beaton archbishop of Glasgow and chancellor of Scotland, with the earls of Huntly, Angus, and Arran, to assist her in the public affairs. Soon after her husband's death she had written an affecting letter to her brother the king of England, setting forth the deplorable state of the kingdom, with her own condition, and imploring his friendship and protection for herself and her child. The letter seems never to have been communicated by Henry to his council; but he answered it, and informed his sister that if the Scots would have peace they should have peace, and war if they chose it. 'He added,' says Drummond, 'that her husband had fallen by his own indiscreet rashness, and foolish kindness to France; that he regretted his death as his ally, and should be willing to prohibit all hostility against Scotland during the minority of her son.' For a remedy of present evils, one year and a day's truce was agreed to. But, though Henry might grant this truce to his sister's intreaty, it certainly did not become a national measure; for it appears by a letter dated two years after, from the Scottish council to the king of France, published by Rymer, that the Scots never had desired a truce. So far from that, the French influence, joined to a desire of revenge, remained so strong in the kingdom that, after the meeting of the parliament, some members proposed a renewal of the war. The motion was indeed over-ruled, but they could not be brought to make any advances towards Henry for a peace; and every day was now big with public calamity. The archbishopric of St. Andrew's being vacant, three competitors appeared: viz. 1. Gawin Douglas, abbot of Aberbrothick; 2. John Hepburn, prior of St. Andrew's, a bold, avaricious, restless, but shrewd and sensible priest; and, 3. Forman, bishop of Moray in Scotland, and archbishop of Bourges in France, who had in his interest not only the duke of Albany (son to the traitor duke) first prince of the blood, but also the court of Rome; and, having received the pope's bull and nomination to the dignity, he was considered as the legal archbishop. This preference discouraged Douglas from pursuing his pretensions; but Hepburn being supported by the clan of his own name, and by the Humes, made so formidable a head against his rivals that none could be found daring enough to publish the papal bull. The earl of Hume, however, put himself at the head of his followers, and, notwithstanding all the opposition given by the Hepburns, proclaimed the bull at the cross of Edinburgh; an undertaking which proved that the earl of Hume had more power than the queen; but Hepburn's resolution, and the greatness of his friends, obliged Forman to agree to a compromise. Hepburn was advanced to the see of Moray, without

accounting for the revenues of the archbishopric which he had received during its vacancy; and he gave Forman a present of 3000 crowns, to be divided among his friends and followers.

In April 1514 the posthumous son, of whom the queen had been delivered in Stirling castle, was by the bishop of Caithness baptized Alexander. On the 6th of August she was married to the earl of Angus; than which nothing could be more impolitic. She had neither consulted her brother nor the States of Scotland in the match; and by this marriage she in fact resigned all claim to the regency. But the Douglasses affirmed that the states might lawfully reinstate her in it; and that the peace of the kingdom required it. The earl of Hume put himself at the head of the opposition to this proposal. He dreaded that the farther aggrandisement of Angus must weaken his interest on the borders: and he was joined by a number of the young nobility, who, though otherwise divided, united against Angus. In short, the general opinion was, that the Douglasses were already too great; and that, should the queen be reinstated in the regency, they must be absolute. It was added by the earl of Hume, that, now the queen had made a voluntary abdication of it by her marriage, it ought not to be renewed. At last the duke of Albany was chosen regent. He was possessed of all the qualities requisite; nor did he disappoint the expectations of the public. On his arrival at Glasgow, he took upon him the titles of earl of March, Marr, Garioch, lord of Annandale, and of the Isle of Man, regent and protector of the kingdom of Scotland. At Edinburgh he was received in form by the three estates, and the queen met him at some distance from the town. The parliament then resumed its session, and the three estates took an oath of obedience, till the king, then an infant of four years old, should arrive at maturity. The first thing at which the regent aimed was the conciliating the differences amongst the various contending families in the kingdom; at the same time that he suppressed various daring robbers, one of whom is said to have had no fewer than 800 attendants in his career. He took into favor Hepburn the prior of St. Andrew's, whom he consulted for information concerning the state of Scotland, and who acquainted him with all the feuds and animosities which raged among the great families. He represented the civil power as too weak to curb these potent chieftains: and gave it as his opinion that the regent's administration ought to be supported by foreign arms, meaning those of France. Hepburn also gained an ascendancy over the regent, by money laid out among his domestics, by a fawning and plausible address, and well-directed flatteries; and took care to employ this ascendancy to destroy those who were obnoxious to himself. The earl of Hume thus became obnoxious to the regent, through the insinuations of Hepburn; and soon perceived that neither he nor his friends were welcome guests at court. Alarmed for his safety, he resolved to form a party with the queen-mother and her new husband against the regent: a scheme in which both readily concurred. In the mean time the regent was making a progress

through Scotland, and bloody feuds were raging among the nobles : but, before any remedy could be applied to these disorders, he was informed of the schemes of the queen-mother and her party ; and that she had resolved to fly into England with her infants. On this he returned to Edinburgh ; set out at midnight, and surprised the castle of Stirling, where he found the queen-mother and her children. The regent, after this bold step, took care to show that the care of the royal infants was his chief study. As he himself was nearly allied to the crown, to remove all suspicions, he committed the care of the king and his brother to three noblemen of the most unexceptionable character, of whom one was the earl of Lennox. They were appointed to attend the princes by turns ; to whom also a guard of French and Scots was assigned ; and the queen-mother was left at liberty to reside where she pleased. On this the earl of Hume retired to his own estate ; whence he was soon after drawn, and obliged to fly into England, by the earls of Arran and Lennox. The queen-mother retired to a monastery at Coldstream ; and messengers were despatched to the court of England to know how Henry would have his sister disposed of. He ordered the lord Dacres, his warden of the marches, to attend her to Harbottle castle Northumberland ; where she was delivered of her daughter the lady Mary Douglas, mother of Henry lord Darnley, father of James VI. The regent sent ambassadors to Henry, to vindicate his own conduct. He likewise invited the queen to return to Scotland ; where she should at all times be admitted to see her children. This offer, however, she declined ; and set out for London, where she was affectionately received by her brother. But in the mean time many disorders were committed throughout the kingdom by her party ; though, by the interposition of archbishop Forman, they were terminated without bloodshed ; and the earl of Angus and others returned to their duty. Lord Hume however refused to surrender, or to accept of the regent's terms ; and was of consequence declared a traitor, and his estate confiscated. All this time he had been infesting the borders at the head of a lawless banditti ; and now he began to commit such devastations that the regent marched against him at the head of 1000 troops. Hume, being obliged to lay down his arms, was sent prisoner to Edinburgh castle ; where the regent very unaccountably committed him to the charge of his brother-in-law the earl of Arran. Hume easily gained over this near relation to his party ; and both of them in October 1515 escaped to the borders, where they soon renewed hostilities. Both the earls were now proclaimed traitors, but Hume was allowed fifteen days to surrender himself. This short interval the regent employed in quashing the rebellion, for which purpose the parliament had allowed him 15,000 men. He besieged the castle of Hamilton, the earl of Arran's chief seat, which was in no condition of defence ; but he was prevailed upon by Arran's mother, daughter to James II., and his own aunt, to forbear further hostilities, and to pardon her son. Arran accordingly submitted ; but the public tranquillity was not restored.

An association at the head of which was the earl of Moray, the king's natural brother, had been formed against the earl of Huntly. That nobleman was too well attended to fear any danger by day ; but his enemies introduced some armed troops in the night into Edinburgh. On this a fierce skirmish ensued, in which some were killed on both sides ; but farther bloodshed was prevented by the regent, who confined all the lords in prison till he had brought about a general reconciliation. One Hay, who had been very active in stirring up the quarrels, was banished to France ; and only the earl of Hume now continued in arms. In 1516 died Alexander duke of Rothesay ; an event which brought the regent one degree nearer the crown. Negotiations were then entered into about prolonging the truce with England ; but, Henry insisting upon a removal of the regent from his place, they were dropped. Finding, however, that he could neither prevail on the parliament as a body to dismiss the regent, nor form any party of any consequence against him, he at last consented to a prolongation of the truce for a year. In 1517, the affairs of the regent requiring his presence in France, he resolved before his departure to remove the earl of Hume, who alone continued to disturb the public tranquillity. Under pretence of settling some differences which still remained with England, he called a convention of the nobility, and sent special letters to the earl of Hume and his brother to attend, on account of their great knowledge in English affairs. Both of them obeyed the summons, and were seized and executed as soon as they arrived at Edinburgh. By this severity the regent lost the affections of the people to such a degree that he could scarcely get their places supplied. That of lord-warden of the marches he at last gave to his French favorite Sir Anthony D'Arcy ; and that of lord chamberlain to lord Fleming. Soon after this the regent levied an army, on pretence of repressing some disturbances on the borders. These being speedily quelled, he seized on his return upon the earl of Lennox, and forced him to deliver up his castle of Dumbar-ton ; not choosing to leave it, during his absence, in the custody of a nobleman of suspected fidelity ; and, from similar motives, he afterwards took him along with him to the continent. He then procured himself to be nominated ambassador to France, in which character he left the kingdom, having committed the government to the archbishops of St. Andrew's and Glasgow, the earls of Arran, Angus, Huntly, and Argyle, with the warden D'Arcy, on whom was his chief dependence. On the departure of the regent, the queen-mother left the English court ; and arrived with a noble retinue at Berwick, to visit her son. Here she was received by her husband ; for whom she had contracted an invincible aversion, on account of his infidelities to her bed. However she suppressed her resentment, and accompanied him to Edinburgh. Here she demanded access to her son ; but was refused by D'Arcy. Lord Erskine, however, who was one of those to whom the care of the young king was committed, conveyed him to the castle of Craigmillar (where D'Arcy had no ju-

ridjction), on pretence that the plague was in Edinburgh; and there the queen was admitted; but this gave such offence to D'Arcy that lord Erskine was obliged to carry back the king to the castle of Edinburgh, where all further access was denied to his mother. In short, the behaviour of this favorite was on all occasions so haughty and violent that he rendered himself universally odious; and was at last murdered with all his attendants in his way to Dunse, where he proposed to hold a court of justice. His death was very little regretted; yet his murderers were prosecuted with the utmost severity, and several persons of distinction declared rebels on that account. Meanwhile, the regent was treated with high marks of distinction in France. The king showed him the greatest respect, promised to assist in establishing his authority in Scotland, and confirmed the ancient league between the two kingdoms. Soon after the earl of Lennox arrived from France, with assurances of assistance from the king, who was highly pleased at the zeal of the governors in punishing D'Arcy's murderers; and 500 soldiers arrived with him, to reinforce the garrisons, especially that of Dunbar. All this time the queen-mother continued at Edinburgh, employing herself in attempts to procure a divorce from her husband, under pretence of his having been previously contracted to another. The affairs of the kingdom again began to fall into confusion, and many murders and commotions happened continually. The earl of Arran had the chief direction in the state; but Angus had still great interest, and took every opportunity to oppose him. This produced an encounter at Edinburgh; in which victory declared for Angus, and seventy-two of the routed party were killed, on the 30th of April, 1519. On the 19th of November, 1521, the regent returned from France. He found the kingdom in great disorder. The earl of Angus domineered in the field, but his antagonists outvoted his party in parliament. The queen-mother, who had fixed her affections on a third husband, hated all parties almost equally; but joined the regent, in hopes of his depriving the other two of power. This happened accordingly, and she was with the regent when he made a kind of triumphal entry into Edinburgh, attended by many persons of the first rank. The earl of Angus was now summoned to appear as a criminal; but his wife interceded for him, because he gave her no opposition in the process of divorce. In the mean time Henry VIII., perceiving that the Scots were entirely devoted to the French interest, sent a letter full of accusations against the regent, and threats against the nation, if they did not renounce that alliance. No regard being paid to these requisitions, lord Dacres was ordered to proclaim upon the borders, that the Scots must stand to their peril, if they did not fall in with his measures by the 1st of March, 1522. This producing no effect, Henry seized the effects of all the Scots residing in England, and banished them his dominions, after marking them, according to bishop Lesley, with a cross. A war was the consequence; and, on the 30th April, the earl of Shrewsbury,

Henry's steward of the household, and K. G., was appointed commander-in-chief against the Scots; and lord Dacres made an inroad as far as Kelso, plundering and burning wherever he came. The regent ordered his army to rendezvous at Roslin; but the Scots, remembering the disaster at Flodden, showed an extreme aversion to the war, and told the regent that, though they would defend themselves if they were attacked, they would not engage in a French quarrel. The regent remonstrated, but without effect; and, as the malecontents continued obstinate, he was in danger of being left by himself, when the queen mother interposed, and prevailed upon lord Dacres to agree to a conference, the event of which was a renewal of the negotiations for peace. The regent, perceiving that he had lost his former popularity, determined to revenge himself; and told those whom he could trust, that he was about to return to France, whence he should bring such a force by sea and land as should render it unnecessary for him to ask leave of the Scots any more to invade England. Accordingly he embarked for France on the 25th of October, publicly giving out that he should return the ensuing August. On the regent's arrival in that country, he made a demand of 10,000 foot and 5000 horse for carrying on the war against England; but the situation of Francis I. did not then allow him to spare so many, though he was daily sending over ships with men, ammunition, and money, for the French garrisons in Scotland. At last it was publicly known in England that the regent was about to return with a strong fleet, and 4000 of the best troops of France; upon which Henry determined, if possible, to intercept him. Sir William Fitz-Williams, with thirty-six large ships, was ordered to block up the French squadron in the harbour of Finhead. Sir Anthony Poyntz cruised with another in the Western seas, as Sir Christopher Dow and Sir Henry Shireburn did in the northern with a third squadron. The duke of Albany, being unable to cope with Fitz-Williams, was obliged to set out from another port with twelve ships, having some troops on board. They fell in with Fitz-Williams's squadron; two of their ships were sunk, and the rest driven back to Dieppe. Fitz-Williams then made a descent at Treport, where he burnt eighteen French ships, and returned to his station off Finhead. As soon, therefore, as Fitz-Williams appeared, the duke disembarked his soldiers, as if he had intended to delay his expedition for that year; but a storm soon arising, which obliged the English fleet to return to the Downs, the regent reembarked his men, and, sailing by the western coasts, arrived safe in Scotland. All this time the earl of Surry had been carrying on the most cruel and destructive war in that country; insomuch that, according to cardinal Wolsey, 'there was left neither house, fortress, village, tree, cattle, corn, nor other succour for man,' in Tweedale and March. The regent's return did not immediately put a stop to these devastations; for the intestine divisions in Scotland prevented him from taking the field; his party was weakened by his long absence, and the queen mother had been very active in strengthening the English interest. A parlia-

ment was called in 1523, where it was debated, whether peace or war with England should take place; and the latter was determined on. Henry was at this time so well disposed to cultivate a friendship with Scotland that he offered to James his eldest sister Mary in marriage; but the Scots, animated by the appearance of their French auxiliaries, and corrupted by their gold, rejected all terms, and resolved upon war. However, when the army was assembled, and had advanced to the borders, the regent found the same difficulty he had formerly experienced; for they flatly refused to enter England. With great difficulty he prevailed upon part of them to pass the Tweed; but, not meeting with success, he was obliged to return to Scotland, which at this time was divided into four factions. One of these was headed by the regent, another by the queen, a third by the earl of Arran, and a fourth by Angus, who had lived as an exile under Henry's protection. At last the duke of Albany, finding all parties united against him, resigned his office of regent; and on the 14th of March in that year went on board one of his own ships for France, whence he never returned to Scotland. He did not make a formal abdication of his government; indeed he requested the nobility, whom he convened for that purpose, to enter into no alliance with England during his absence, which he said would continue no longer than the 1st of September following; to make no alteration in the government; and to keep the king at Stirling.

The nobility, impatient for the absence of the regent, readily promised whatever he required but without any intention of performing it; nor, indeed, was it in their power; for it had been previously determined that James himself should now take the administration into his own hands. According to Buchanan, the regent had no sooner returned to France than Scotland relapsed into all the miseries of anarchy. The queen dowager had the management of public affairs, but her power was limited. The earl of Arran, apprehending danger from the English, entered into the views of the French party. The queen-mother's dislike to her husband prevented a union among those who were in the English interest; and Wolsey restored the earl of Angus to all his importance in Scotland. The queen, therefore, had no other way left to keep herself in power but to bring her son into action. On the 29th of July, therefore, James V. removed from Stirling to Holyrood House, where he took upon himself the exercise of government, convoking the nobility, and obliging them to swear allegiance a second time. The truce with England was now prolonged, and the queen's party carried all before them. On the very day in which the last truce was signed with England, the earl of Angus entered Scotland. He had been invited from his exile in France into England where he was caressed by Henry, who disregarded all his sister's intreaties to send him back to France, and now resolved to support him in Scotland. Yet, though his declared intention in sending the earl to Scotland, was, that the latter might balance the French party there, the king enjoined him to sue for a reconciliation with his wife, and to co-operate with the earl of Arran, who now

acted as prime minister. On his return, however, he found himself excluded from all share in the government, but soon found means to form a strong party in opposition to Arran. In the mean time ambassadors were sent to the court of England, to treat of a perpetual peace. At the same time a match was proposed between the young king of Scotland and Henry's daughter. This had originally been a scheme of Henry himself. The ambassadors arrived in London on the 19th December, and found Henry very much disposed both to the peace and to the match. Commissioners were appointed to treat of both; but they were instructed to demand, by way of preliminary, that the Scots should renounce their league with France, and that James should be sent for education to England. The Scottish commissioners declared that they had no instructions on these points; but the earl of Cassils offered to return to Scotland, and bring a definitive answer from the three states; in the mean time the truce was prolonged to the 15th of May, 1525. On his arrival at Edinburgh he found the earl of Angus the leading man in parliament; by whose influence it was determined that the Scots should renounce their league with France, and substitute in place of it a similar league with England; and that the king should be brought up at the English court, till he was of an age proper for marriage; but at the same time they required of Henry to break off all engagements with Charles V., who was the bitter enemy of Francis, and at that time detained him prisoner. To this Henry returned a cold answer, being then engaged in treaties with the emperor, among which one was concerning the marriage of the princess Mary. However, before Cassils returned, a truce of two years and a half was concluded. But now the queen mother, though she had always been a warm advocate for an alliance between the two nations, yet disliked the means of bringing it about. She saw her husband's party increasing every day in power; so that she had no other resource than keeping possession of the king's person, whom she removed to the castle of Edinburgh. Being under the necessity of convening a parliament, it was resolved to hold it within the castle; which, being an unconstitutional measure, the earl of Arran and his party complained. They began with remonstrances, but, finding them ineffectual, they formed a blockade of the castle with 2000 men, and cut off all communication with the town by means of trenches. As no provisions could thus be got into the castle, the queen ordered some of the cannon to be turned against the town, to force the citizens to put an end to the blockade. Several shots were fired; but, when all things appeared ready for a civil war, matters were compromised. It was agreed that the king should remove out to the palace of Holyrood House, whence he should repair with all possible magnificence to his parliament, in the house where it was commonly held; and there a finishing hand was to be put to all differences. This agreement was signed on the 25th of February, 1526. The parliament accordingly met, and the king's marriage with the princess of England was confirmed; but no mention was made of his being sent for

his education into that country; on the contrary, he was committed to the care of eight lords of parliament. These were to have the custody of the king's person, every one his month successively, and the whole to stand for the government of the state; yet with this limitation, 'that the king, by their counsel, should not ordain or determine any thing in great affairs to which the queen, as princess and dowager, did not give her consent.' This partition of power, by giving the queen a negative in all public matters, soon threw every thing into confusion: The earl of Angus, by leading the king into various scenes of dissipation, gained such an ascendancy over him that he became totally guided by him; while the queen mother, finding that she could not have access to her son without her husband, whom she hated, retired with her domestics to Stirling. Thus the young monarch was left under the sole tuition of the earl of Angus, who made a very bad use of his power, engrossing all the places of honor and profit. The archbishop of St. Andrew's, having now joined the queen's party, advised her to make a formal demand upon her husband, that the order of government which had been settled last parliament should take place, and that under a penalty he should set the king at liberty. To this the earl answered that 'having been so highly favored by his good uncle the king of England, and that James himself being under great obligations to him, neither the queen nor the other lords need be in any pain about him, as he chose to spend his time with the earl of Angus rather than with any lord in the kingdom.' James, however, perceived that he was in fact no better than the earl's prisoner, and resolved to recover his liberty. The earls of Argyle and Arran had retired from court, and were living on their own estates; but the earl of Lennox dissembled his sentiments so well, that he was neither suspected by the earl of Angus nor any of the Douglas family. The king, being gained upon by his insinuating behaviour, opened his mind to him, and requested his assistance against his keepers. At the same time he sent letters to his mother and her party, by some domestics, whom Lennox had pointed out, intreating them to remove him from the earl, adding that if this could not be done by any other means they should use force. On receiving this letter the queen and her party assembled their forces at Stirling, and began their march for Edinburgh. Angus, on the other hand, prepared to give them a warm reception, but to carry along with him the king. This resolution being made known to the queen-mother, she was so much concerned for the safety of her son that the whole army was disbanded; and thus the authority of the earl of Angus seemed to be more established than ever. Nothing, indeed, was now wanting to render him despotic but the possession of the great seal, which the archbishop of St. Andrew's had carried to Dunfermline. As no deed of any consequence could be executed without this, he prevailed upon the king to demand it by special message; in consequence of which the archbishop was obliged to give it up. About this time the divorce between the queen-mother and the earl took place; which increased

the dislike of James, while the imprudence of Angus gave every day fresh disgust. As Angus knew that he had no firm support but in the attachment of his followers, he suffered them to rob and plunder the estates of his opponents without mercy. These, again, did not fail to make reprisals; so that, towards the end of 1526, there was scarcely an appearance of civil government in Scotland. Thus the court became almost totally deserted; every nobleman being obliged to go home to defend his own estate. Even Angus himself shared in the common calamity, and hence was frequently obliged to leave the king to the custody of Lennox. To this nobieman the king now made the most grievous complaints, and charged him to contrive some plan for his escape. Lennox accordingly recommended to him the baron of Buccleugh, who was very powerful in the southern parts, and a violent enemy to Angus and the whole family of Douglas. To him he gave orders to foment the disorders in the southern parts to such a degree as to require the king's personal presence to compose them. Buccleugh was then to attack the party, and take the king by force from the Douglasses. This scheme was put in execution, but Buccleugh was defeated, and the attempt proved abortive. After this the earl of Angus behaved towards Lennox with such indifference that Lennox openly declared against him, and advised the king to form a friendship with the archbishop of St. Andrews. This was accordingly done; but the interest of the archbishop and Lennox was overbalanced by that of Arran and the Hamilton family, whom the earl of Angus now drew over to his party. However, the earl of Lennox, having received powers from the king, suddenly retired from court, and published a manifesto, inviting all loyal subjects to assist him in delivering the king from confinement. In consequence of this he was soon joined by a numerous army, with whom he advanced towards Edinburgh. Angus assembled his adherents; and sent orders to the inhabitants of Edinburgh to take the field with the king at their head. The citizens immediately put themselves under arms; but, James pretending to be indisposed, Sir George Douglas, brother to the earl of Angus, said, 'Sir, rather than our enemies should take you from us, we will lay hold of your person; and, should you be torn in pieces in the struggle, we will carry off part of your body.' Upon this speech, which James never forgot, he mounted his horse, and set forward to Linlithgow at a slow pace; insomuch that Sir George Douglas, afraid of not coming in time to succor his brother, made use of many insinuations to push James on to the field of battle. Three expresses arrived from the earl of Angus; the first informing his brother that he was about to engage with a superior army; the second that Angus was engaged with a division of Lennox's army, commanded by the earl of Glencairn; and that Lennox himself was engaged with the Hamiltons. The third informed him that Lennox, if not defeated, was on the point of being so. Upon receiving this last news James hastened to the field of battle, that he might save Lennox, and put an end to the bloodshed; but he came

too late; for the royal party was already defeated with great slaughter; and Lennox himself, after being wounded and taken prisoner, was murdered by Sir James Hamilton. On the night of the battle the king was removed to Linlithgow; and, though he was under the greatest grief for the fate of Lennox, the behaviour of the Douglasses struck him with such terror that he dissembled his sentiments. The earl of Angus led his victorious troops into Fife, in hopes of surprising the queen and the archbishop of St. Andrews. The queen, on the news of his approach, fled, with her new husband Henry Stuart, brother to lord Evandale, to Edinburgh, and both were admitted into the castle. The archbishop fled to the mountains, where he was obliged to keep cattle as a shepherd. Angus, after having plundered the castle of St. Andrew's and the abbey of Dunfermline, returned in triumph in Edinburgh, where he prepared to besiege the castle; but the queen, hearing that her son was among the number of the besiegers, ordered the gates of the castle to be thrown open, and surrendered herself and her husband prisoners to James, who was advised to confine them to the castle. After these successes, the earl of Angus established a court of justice, in which he prosecuted those who had opposed him, among whom was the earl of Cassils. He was offered by Sir James Hamilton, natural son to the earl of Arran, the same who had murdered Lennox, an indemnity, if he would own himself a vassal of that house; but this condition was rejected. Being called to his trial, and accused of having taken arms against the king, a gentleman of his name and family, who was his advocate, denied the charge, and offered to produce a letter under James's own hand desiring him to assist in delivering him from his gaolers. This striking evidence confounded the prosecutor so much that the earl was acquitted; but, on his return home, he was way-laid and murdered by one Hugh Campbell, at the instigation of Sir James Hamilton. During these transactions in the south, many of the Highland clans were perpetrating the most horrid scenes of rapine and murder. The state of the borders was little better than that of the Highlands; but it engaged the attention of Angus more, as he had great interest in these parts. Marching, therefore, against the banditti which infested these parts, he soon reduced them to reason. His power seemed now to be firmly established, insomuch that the archbishop of St. Andrews began to treat with Sir George Douglas, to whom he offered lucrative leases and other emoluments, if he would intercede with Angus in his favor. This was readily agreed to; and the archbishop was allowed to return in safety to his palace about the same time that Angus returned from his expedition against the borderers. Nothing was then to be seen at court but festivities of every kind, in which the queen-mother, who was now liberated, took part; and she was afterwards suffered to depart to the castle of Stirling, which Angus had neglected to secure. In the mean time the archbishop invited the Douglasses to spend some days with him at his castle; which they accordingly did, and carried the king along with them. Here James dissembled so

well that Angus thought there could be no danger in leaving him in the hands of his friends, till he should return to Lothian to settle some public and private affairs. He left the king in the custody of his uncle Archibald, his brother Sir George, and one James Douglas of Parkhead, captain of the guards, who watched the king on pretence of doing him honor. The earl was no sooner gone than the archbishop sent an invitation to Sir George Douglas, desiring him to come to St. Andrews, and there put the last hand to the leases. This was so plausible that he immediately set out for St. Andrews; while his uncle the treasurer went to Dundee, where he had an amour. James, thinking this the best opportunity for an escape, resolved to attempt it, and, by a private message, apprised his mother of his design. It was then the season for hunting, which James often followed in the park of Falkland; and, calling for his forester, he told him that, as the weather was fine, he intended to kill a stag next morning, ordering him at the same time to summon all the gentlemen in the neighbourhood to attend him with their best dogs. He then called for his chief domestics, and commanded them to get his supper early, because he intended to be in the field by day-break; and talked with the captain of his guard of nothing but the excellent sport he expected. Meantime he had engaged two young men, the one a page of his own, the other, John Hart, a helper in his stables, to attend him in his flight, and to provide him with the dress of a groom for a disguise. Having taken leave of his attendants, charging them to be ready early in the morning, and, being left alone, he stole softly out of his bed-chamber, went to the stable, dressed himself in his disguise; and he and his companions, mounting the three best horses, galloped to Stirling castle; into which he was admitted soon after day-break. He commanded all the gates to be secured; and, the queen having previously prepared every thing for a vigorous defence, orders were given that none should be admitted into the castle without the king's permission. About an hour after the king escaped from Falkland, Sir George Douglas returned; and, being assured that the king was asleep, went to bed. But James had been seen and known in his flight; for, in the morning, the bailiff of Abernethy informed Sir George that the king had passed Stirling bridge. An express was despatched, informing Angus of all that had happened. The earl quickly repaired to Falkland, where he and his friends resolved to go to Stirling, and demand access to the king. James by this time had issued letters to the earls of Huntly, Argyle, Athol, Glencairn, Monteith, Rothes, and Eglinton; lords Graham, Livingston, Lindsay, Sinclair, Ruthven, Drummond, Evandale, Maxwell, and Semples. Before all of them could arrive at Stirling, the earl of Angus and his friends were upon their journey to the same place; but were stopped by a herald, commanding them not to approach within six miles of the king's residence. On this the earl deliberated with his party how to proceed. Some were for marching, and taking the castle by surprise; but that was found to be impracticable. The earl and his brother therefore resolved to

make a show of submission to the king's order; and they accordingly went to Linlithgow. By this time all the nobility already mentioned, and many others, had assembled at Stirling; and James, calling them to council, inveighed against the tyranny of the Douglasses with acrimony, and in conclusion, said, 'Therefore I desire, my lords, that I may be satisfied of the said earl, his kin, and friends. For I vow that Scotland shall not hold us both, while I be revenged on him and his.' The result was that proclamation should be made, renewing the order for the Douglasses not to approach the court, and divesting the earl of Angus and his brother of all their public employments. Such was the moderation of the assembly that by their advice James ordered the earl to retire to the north of the Spey till his pleasure should be known; but his brother was commanded to surrender himself a prisoner in the castle of Edinburgh, to take his trial in a very full parliament, to be held in that city next September. The earl and his brother considered all this as a prelude to their destruction; and resolved to surprise the city of Edinburgh, and hold it against the king and parliament, before the latter could assemble. The royal party acted with great spirit. The management of the king's escape, his reception into Stirling, the fortifying that castle, and the ready obedience of his great nobility, some of whom attended him with their followers before they received any summonses, are proofs of wise and spirited deliberations. It was to be expected that the Douglasses, who remained assembled in a numerous body, would make the attempt they made; but the royalists despatched lord Maxwell and the baron of Lochinvar with troops to take possession of the city, till James could arrive with 2000 forces to their relief. Maxwell and Lochinvar made such despatch that they were in possession of the city when the Douglasses appeared before it, and repulsed them; while a terrible storm had scattered the troops under James, before he could come to their assistance, so effectually, that, being left almost without attendants, he might have been taken by the smallest party of the enemy. Upon the retreat of the Douglasses from Edinburgh, the parliament met; and the earl of Angus, his brother, Sir George Douglas, his uncle Archibald Douglas, and Alexander Drummond of Carnock, with some of their chief dependents, were indicted and forfeited in absence (none of them appearing), for 'assembling of the king's lieges, with intention to have assailed his person; detaining of the king against his will and pleasure, and contrary to the articles agreed upon, for two years and more; all which time the king was in fear and danger of his life.' One Banantyne had the courage to plead their cause against these heinous charges; but so exasperated were both the king and parliament against them that the former swore he never would forgive them, and the latter that they never would intercede for them. Nor was it deemed sufficient simply to declare their resolution; but the solemnity of oaths was added, to discourage the king of England from continuing the applications he was daily making for the pardon of Angus; and, to

extinguish all hopes of that kind, James created his mother's third husband lord Methven, and gave him the direction of his artillery. The disgrace and forfeiture of the Douglasses having created many vacancies in the state, Gavin Dunbar, archbishop of Glasgow, and tutor to the king, was nominated lord chancellor, and Robert Carncross, a person, says Buchanan, more eminent for wealth than virtue, was made treasurer; but he was soon after displaced for favoring the Douglasses, and Robert Barton appointed to succeed him. The Douglasses still kept their arms; and, being joined by many outlaws and robbers in the south, they ravaged all the lands of their enemies, carrying their devastations to the very gates of Edinburgh. A commission of lieutenantancy was then given to the earl of Argyle and lord Hume, who did great service in protecting the country from the outlaws. Several villages, however, near Edinburgh, were burnt; and all the provisions the Douglasses could find were carried off to their castle of Tamtalian, which served as their head quarters. The castle of Dunbar remained still in the hands of the duke of Albany's garrison, who recognised no master but him. The place was well stored with artillery of all kinds; and, lying in the neighbourhood of Tamtalian, it was easy to transport them to the siege; but James thought he had no right to make use of them without the consent of one Maurice, governor of the castle. Having summoned, by proclamation, the inhabitants of Fife, Angus, Strathern, Stirlingshire, Lothian, Merse, and Teviotdale, to appear at Edinburgh on the 10th of December, with forty days victuals, to assist in the siege, he sent three noblemen to borrow artillery from Maurice, and to remain as pledges for the safe redelivery of the same; and they were accordingly sent him. This delicacy is the more remarkable as the duke of Albany had given orders that every thing in his castle should be at the king's service. However unanimous the parliament might appear against the Douglasses, yet James was but ill seconded in this attempt. The enemies of the Douglasses had impolitically rendered it treasonable for any person to shelter or protect the earl of Angus, his kinsmen, or followers. This proceeding, in a country where the Douglasses had so many connexions, carried with it an appearance of cruelty and a thirst of revenge, especially as James had chosen such a season for carrying on the siege. In short, after battering the place for some days, and losing one Falconer, his chief engineer, the king abandoned his enterprise. Before this time, a negotiation was going forward between James and the king of England; which proves that the former was now rendered placable towards the Douglasses, and was the reason why the siege was suspended. The truce between Scotland and England was now near expiring; and Henry, under that pretence, gave a commission to the prior of Durham, Thomas Magnus, Sir Anthony Ughtred, captain of the town and castle of Berwick, William Franklyn, chancellor of Durham, and Sir Thomas Tempeste. England was then the principal ally of Francis against the emperor; and this gave a handle for Francis to interpose so far in favor of

the Douglasses, that he brought James to consent to a preliminary negotiation for their obtaining a secure retreat in England.

James being now delivered from all dread of the Douglasses, and under no control from any party, showed excellent dispositions for government. Finding that the borderers were renewing their depredations, he resolved to strike at the root of an evil which had so long disgraced his ancestors, by giving no quarter to the chiefs of these robbers, whose residence was in Liddesdale. This was the more necessary, as their daring attempts had exasperated the English so much, that they had actually burnt a town in Teviotdale; and had killed one Robert Kerr, a man of some consequence. Two of the chiefs of the Scottish borderers were Cockburn of Kenderlaw, and Adam Scot, commonly called the king of the thieves. Both of them were barons; and had been so inured to the practice that they thought there was no crime in robbing; they therefore appeared publicly in Edinburgh; where James ordered them to be apprehended, tried, and hanged. He next proceeded with great firmness against many noblemen and gentlemen, who were suspected of being disaffected to the late peace. All of them had behaved with great loyalty, and some of them had done him the most important services. Of this number were the earl of Hume, lord Maxwell, with the barons of Buccleugh, Farniherst, Polwart, Johnston, and Mark Kerr; yet so zealous was James for the impartial administration of justice that he ordered them all, with many other chiefs of the borderers, to be sent to prison; where they lay till they entered into recognizances, and found bail for their good behaviour. Of all the party of the Douglasses, none of any note, excepting Alexander Drummond of Carnock, was suffered to return home, at the earnest request of the ambassadors and the treasurer Barton. This lenity was of very little consequence; for James having appointed the earl of Murray to be sole warden of the Scottish marches, with power to treat with the earl of Northumberland, their conferences had broken off on account of fresh violences. He now resolved to attempt in person what his predecessors and he had so often failed in by their deputies. As he was known to be fond of hunting, he summoned his nobility to attend him with their horses and dogs; which they did in such numbers, that his hunting retinue consisted of above 8000 persons, two-thirds of whom were well armed. This preparation gave no suspicion to the borderers, as hunting matches in those days commonly consisted of some thousands; and James, having set out upon his diversion, is said to have killed 540 deer. Among the other gentlemen who had been summoned to attend him was John Armstrong of Gilnockhall. He was the head of a numerous clan, who lived with great splendor upon the contributions under which they laid the English borderers. He was himself always attended by twenty-six gentlemen on horseback, well mounted and armed, as his body guards. Having received the king's invitation, he was fond of displaying his magnificence to his sovereign; and, attiring himself and his guard more pompously

than usual, they presented themselves before James, from whom they expected some particular mark of distinction for their services against the English, and for the protection they had always given to their countrymen the Scots. On their first appearance James, not knowing who he was, returned Armstrong's salute, imagining him to be some nobleman; but, upon hearing his name, he ordered him and his followers to be immediately apprehended, and hanged upon the spot. Armstrong begged hard for his life; and offered to serve the king in the field with forty horsemen, besides making him large presents of jewels and money, with many other tempting offers; but the king was inexorable. These and some similar executions restored peace to the borders.

Hitherto we have considered only the civil transactions of Scotland; but religion will now claim a considerable share of our attention. The opinions of Luther had been propagated in Britain soon after his preaching in 1517. They had for some years gained ground, and, when the contentions began between James and his nobility, were become formidable to the established religion. James, having escaped from the hands of his nobles by means of the archbishop of St. Andrew's, was naturally favorable to the clergy, and, as they opposed the reformation, became a zealous persecutor. On the other hand the nobility, having opposed the king and clergy in civil affairs, did so likewise in religion. The clergy finding themselves unequal in argument, had recourse to more violent methods. Rigorous inquisitions were made after heretics, and fires were every where prepared for them. 'The first person,' says Dr. Stuart, 'who was called upon to suffer for the reformed religion was Patrick Hamilton, abbot of Ferne. At an early period of life he had been appointed to this abbacy; and, having imbibed a favorable idea of the doctrines of Luther, he had travelled into Germany, where, becoming acquainted with the most eminent reformers, he was fully confirmed in their opinions. Upon his return to Scotland he exposed the corruptions of the church, and insisted on the advantages of the tenets which he had embraced. A conduct so bold, and the avidity with which his discourses were received by the people, gave an alarm to the clergy. Under the pretence of a religious and friendly conference he was seduced to St. Andrew's by Alexander Campbell, a Dominican friar, who was instructed to remonstrate with him on the subject of the reformation. The conversation they held only served to establish the abbot more firmly in his sentiments, and to inflame his zeal to propagate them. The archbishops of St. Andrews and Glasgow, and other dignitaries of the church, constituting a court, called him to appear before them. The abbot neither lost his courage, nor renounced his opinions. He was convicted accordingly of heretical pravity, delivered over to the secular arm, and executed in 1527. His tenets are thus enumerated in the sentence:— 'Man hath no free will. Man is in sin so long as he liveth. Children, incontinent after their baptism, are sinners. All Christians, that be worthy to be called Christians, do know that they are in grace. No man is justified by works,

but by faith only. Good works make not a good man, but a good man doth make good works; and faith, hope, and charity, are so knit, that he that hath the one hath the rest; and he that wanteth the one of them wanteth the rest.' (Keith's Hist. p. 3). This reformer had not attained the twenty-fourth year of his age. His youth, his virtue, his magnanimity, and his sufferings, all operated in his favor with the people. To Alexander Campbell, who insulted him at the stake, he objected his treachery, and cited him to answer for his behaviour before the judgment seat of Christ. And this persecutor, a few days after, being seized with a frenzy, and dying in that condition, it was believed and affirmed with confidence that Mr. Hamilton was an innocent man and a martyr. A deed so affecting, from its novelty and circumstances, excited throughout the kingdom a universal indignation and curiosity. Particular enquiries were made into the tenets of Hamilton. Converts to the new opinions multiplied in every quarter, and a partiality to them began to prevail even among the Romish clergy. Alexander Seton, the king's confessor, inveighed against the errors and abuses of Popery; neglected in his discourses all mention of purgatory, and pilgrimages, and saints; and recommended the doctrines of the reformed. What he taught was impugned; and, his boldness rising with contradiction, he defended warmly his opinions, and even affirmed that in Scotland there were no true and faithful bishops. A sarcasm so just, and so daring, provoked the whole body of the prelacy. They studied to compass his destruction; and, as Mr. Seton had exhorted the king to a greater purity of life, they hoped to conduct him to the stake; but he fled into England. In 1533 Henry Forest, a Benedictine friar, who adopted the reformed doctrines, was not so fortunate. After having been imprisoned for some time in the tower of St. Andrews, he was brought to trial, condemned, and burnt. He had said that Mr. Hamilton was a pious man and a martyr; and that the tenets for which he suffered might be vindicated. This guilt was aggravated by the discovery that friar Forest was in possession of a New Testament in the English language. A cruelty so repugnant to the feelings of mankind, while it pleased the pride of the ecclesiastics, was destroying their importance, and exciting a general disposition in the people to adopt the principles and sentiments of the reformed. In 1534 archbishop James Beaton of St. Andrews, though remarkable for prudence and moderation, was overawed by his nephew and coadjutor David Beaton and by the clergy. By commission, granted by him, persecutions were carried on with violence. Many were driven into banishment, and many were forced to acknowledge what they did not believe. The more strenuous and resolute were delivered over to punishment. Among these were two private gentlemen, Norman Gourlay and David Stratton. They were tried at Holyrood House before the bishop of Ross; and, refusing to recant, were condemned. King James, who was present, appeared exceedingly solicitous that they should recant their opinions; and Stratton, upon being adjudged to the fire, having

begged for mercy, was about to receive it, when the priests proudly pronounced that the grace of the sovereign could not be extended to a criminal whom their law had doomed to suffer. A few years after, the bishops having assembled at Edinburgh, two Dominican friars, Killor and Beverage, with Sir Duncan Sympson a priest, Robert Forrester a gentleman of Stirling, and Thomas Forest vicar of Dolour in Perthshire, were condemned to be burnt together. At Glasgow a similar scene was acted in 1539; Hieronymus Russel, a gray friar, and a young gentleman named Kennedy, were accused of heresy before the bishop. Russel, when brought to the stake, displaying a deliberate demeanor, reasoned gravely with his accusers, and was only answered with reproaches. Mr. Kennedy, who was not yet eighteen years of age, seemed disposed to disavow his opinions, and to sink under the weight of cruel affliction; but, the exhortation and example of Russel awakening his courage, his mind assumed a firmness and constancy, his countenance became cheerful, and he exclaimed with a joyful voice, 'Now I defy thee, death; I praise my God, I am ready.' James Beaton, archbishop of St. Andrews, having died about this time, the ambition of David Beaton, his coadjutor, was gratified in the fullest manner. He had before been created a cardinal, and was now advanced to the primacy of Scotland. No Scottish ecclesiastic had been ever invested with greater authority; and the reformers had every thing to fear from so formidable an enemy. The natural violence of his temper had swelled into an overbearing insolence. His youth had been passed in scenes of policy and intrigue, which gave him address and knowledge of men. He was dark and designing. No principles of justice were any bar to his schemes; nor did his heart open to any impressions of pity. His ruling passion was an inordinate love of power; and, his consequence depending upon the church of Rome, he maintained its superstitions with the warmest zeal. He seemed to take a delight in perfidiousness and dissimulation; had certainly no religion; and indulged in the most open profligacy of manners. In connexion with these defects he possessed a persevering obstinacy in pursuing his measures, and practised all the arts necessary to advance them. He was scarcely invested in the primacy when he exhibited his taste for magnificence, and his aversion to the reformed. He proceeded to St. Andrews with an uncommon pomp and parade. The earls of Huntly, Arran, Marischal, and Montrose, with the lords Fleming, Lindsay, Erskine, and Seton, honored him with their attendance; and there appeared in his train Gavin archbishop of Glasgow and lord high chancellor, four bishops, six abbots, many private gentlemen, and a vast multitude of the inferior clergy. In the cathedral, from a throne erected by his command, he harangued on the state of religion and the church to this company and a crowd of other auditors. He lamented the increase of heretics; insisted upon their audacity; and urged the necessity of acting against them with rigor. He told this assembly that he had cited Sir John Borthwick to appear before it for maintaining tenets of faith hostile

to the church, and for dispersing heretical books, and he desired their assistance in bringing him to justice. Thirteen articles of accusation were accordingly read against him; but he neither appeared personally nor by any agent or deputy. He was however found guilty; and the cardinal, with a solemnity calculated to strike with awe and terror, pronounced sentence against him. His goods and estate were confiscated; and a painted representation of him was burnt publicly. It was declared that every office of humanity, comfort, and solacement extended to him should be considered as criminal, and be punished with confiscations and forfeitures. Sir John Borthwick, having been apprised of his danger, fled into England, where he was kindly received by Henry VIII., who employed him in negotiations with the Protestant princes of Germany. Cardinal Beaton perceived with concern that this act of severity did not terrify the people. New defections from the church were announced. Andrew Cunningham, son to the master of Glencairn, James Hamilton brother to Patrick Hamilton the martyr, and the celebrated George Buchanan the historian, were imprisoned upon suspicion of heresy; and, if they had not escaped, must have died at the stake. In this declining condition of popery the cardinal held many mournful consultations with the bishops. All their wisdom was employed to devise methods to support their power. The project of an inquisitorial court was conceived. To erect this tribunal they allured James V. with the hopes of the confiscation and spoils which might enrich him, from the persecution and punishment of the reformed. He yielded to their solicitations, and gave them the sanction of his authority. A formal commission was granted, constituting a court of enquiry after heretics, and nominating for its president Sir James Hamilton of Fennard, natural brother to the earl of Arran. The officious zeal of this man, his ambition, and thirst of blood, were acceptable in a high degree to the clergy; and to this had eminence their recommendation had promoted him. Upon the slightest suspicion he was allowed to call any person before him, to scrutinise into his creed, and to absolve or to condemn him. A tribunal so dreadful could not have found a director more suited to it. He was in haste to fill the prisons with culprits, and was marking down the names of all those to whom heresy was imputed by popular report. But, while he was brooding over mischief, and multiplying in fancy the triumphs of his wickedness, an unexpected turn of affairs presented him in the light of a criminal, and brought him to the scaffold. The brother of Mr. Hamilton the martyr, to avoid persecution, had been obliged to go into banishment; but, by the intercession of his friends, he was permitted to return for a short time to his own country, that he might regulate the affairs of his family. He was connected with Sir James Hamilton, and, trusting to the ties of blood, ventured to prolong his stay beyond the period allotted to him. Sir James, willing to give a signal example of severity, and thus to ingratiate himself with the priesthood, resolved to make his own relation the first victim of his power. Mr. Hamilton, however, being

acquainted with the most private machinations of this inquisitor, despatched his son to the king, who was about to pass the Forth in a barge, and entreated him to provide for his safety as Sir James Hamilton had conspired with the house of Douglas to assassinate him. James V. being at variance with the house of Douglas was disposed to believe every thing flagitious of Sir James Hamilton. He ordered the young gentleman to go with expedition to Edinburgh, and to open the matter to the privy-council; and he furnished him with the ring which he sent to them upon these important occasions, which required their address and activity. Sir James Hamilton was apprehended and imprisoned. An accusation of having devised the king's death was preferred against him. His defence appeared unsatisfactory. A jury of men of rank and character pronounced him guilty; and, being condemned to suffer the death of a traitor, he lost his head, and the quarters of his body were exposed on the gates of the city of Edinburgh. The clergy, who could not prevent his trial and execution, regretted his death, but did not appoint a successor to him in their court of inquisition.—Dr. Gilbert Stuart's History of the Reformation.

In other respects, however, James showed great concern for the welfare of his people. Being dissatisfied with the ordinary administration of justice, he had recourse to the parliament of Paris for a model of the like institution in Scotland. Great objections lay to ambulatory courts of justice. The authority of the heritable jurisdiction was almost exclusive of all law; for, though the king might preside in them, yet he seldom did; and appeals to the council were disagreeable and expensive. The institution of the lords of articles threw too much weight into their scale, as no business could be transacted in parliament but what they prepared; and it was in the power of the king to direct them as he pleased. The true source of the public grievances in matters of property lay in the disregard shown to the excellent acts which had passed during the reigns of James I., II., and III., and which had not been supported in the late reigns. The evil had gathered strength during the minority of James V.; and he resolved to establish a standing jury for all matters of law and equity, with a president, who was to be the mouth of the assembly. On the 13th of May, this year, as we find by a curious MS. in the British museum, the lords of the articles laid before the parliament the proposition for instituting the court of session in the following words:—'Item, anent the second artikel concerning the order of justice; because our sovereign lord is maist desirous to have an permanent order of justice for the universal of all his lieges; and therefore tendis to institute an college of cunning and wise men for doing and administration of justice in all civil actions; and therefore thinke to be chosen certain persons maist convenient and qualified yair (there), to the number of fifteen persons, half spiritual, half temporal, with an president.' In 1553 hostilities were recommenced with England; but, after some slight incursions on both sides, a truce again took place. The

chief transactions of these years, however, were the negotiations for the king's marriage. Indeed there is scarcely any monarch mentioned in history who seems to have had a greater variety of choice, or who was more difficult to be pleased. The situation of affairs on the continent of Europe had rendered Scotland a kingdom of great consequence, as holding the balance of power between France and England, and the emperor of Germany; and each of the rival powers endeavoured to gain the favor of James by giving him a wife. In 1534 king Francis offered him his daughter; and the match was strongly recommended by the duke of Albany, who was still living in France. The same year the imperial ambassador arrived in Scotland, and presented, in the name of his master, the order of the golden fleece to James, who had already been invested with that of St. Michael by Francis. At the same time he offered him his choice of three princesses; Mary of Austria, the emperor's sister, and widow of Lewis king of Hungary; Mary of Portugal, the daughter of his sister Eleanora of Austria; or Mary of England, the daughter of Catharine and Henry. Another condition, however, was annexed to this proposal; viz. that, to suppress the heresies of the time, a council should be held for obviating the calamities which threatened the Christian religion. These proposals would have met with a more ready acceptance from James, had not his clergy at this time been disgusted with Charles for allowing too great a latitude to the Protestants of Germany. James, in his answer, returned the emperor his polite acknowledgments for the splendid alliances he had offered him: touched on the proposal of the council as being a measure rather to be wished for than hoped, because it ought to be free and holy, and upon the model of the first councils; and observed that, if such a council could be obtained, he would send ecclesiastics to it; but, if not, every prince ought to reform the errors of the clergy within his own dominions. He bewailed the obstinate conduct of his uncle in his divorce and marriage; and offered his best offices for effecting a reconciliation between him and the emperor, wishing that all the princes of Christendom would unite their arms against their common enemy the Turks. He hinted, very justly, that his imperial majesty had offered more than he could perform, because his cousin, Mary of England, was not at his disposal. That it would be impolitic to give a preference to any of the three princesses, all of them being so illustrious and deserving; but, to show how much he valued an alliance with his imperial majesty, he would become a suppliant to that prince for his niece, daughter to Christian king of Denmark, to become his bride. The ambassador's answer to this unexpected request was that she was already betrothed to the count palatine. But, whether the emperor had any right to offer the English princess or not, it is agreed by most historians that he was offered either Mary or Elizabeth by their father Henry himself. To Mary of Bourbon, the daughter of the duke of Vendosme, he is said to have been contracted; but for some reason or other all these matches were broken off; and the king at last

went to France, where he married Magdalen the eldest daughter of Francis. The nuptials were celebrated at Paris in 1537, with great magnificence; and among other things served up by way of dessert at the marriage feast, were a number of covered cups filled, it is said, with pieces of gold and gold dust, the product of Scotland, which James distributed among the guests. This gold was found in the mines of Crawford Moor, then worked by the Germans. In the beginning of May the royal pair embarked for Leith, under convoy of four large ships of war, and landed on the 28th of the same month. The joy of the Scots was universal, but it was of short continuance; for the young queen died of a fever on the 22d of July the same year. King James did not long remain a widower; for the same year he sent Beaton, abbot of Arbroath, to treat of his second marriage with a French lady, Mary of Guise, duchess-dowager of Longueville. In this he was rivalled by his uncle Henry VIII., but not before James had been contracted to her. Henry, however, not only insisted upon having this lady for his wife, but threw out some menaces against Francis, because he would not comply with his request. In January, 1538, she was married to James, and escorted to Scotland by the admiral of France with a considerable squadron, both James and Francis being suspicious that Henry would make some attempt to intercept the royal bride. But nothing of this kind happened: and she landed safely at Fife Ness; whence she was conducted to the king at St. Andrew's. But, while James was thus completing his domestic arrangements, he was in other matters showing himself a bloody tyrant. Some differences subsisted between the families of Gordon and Forbes in the north. The heir of the house last mentioned had been educated in a loose dissipated manner, and kept company with a worthless fellow named Strahan. Having refused this favorite something he had asked, the latter attached himself to Gordon earl of Huntly, who, it is said, assisted him in forging a charge of treason against Forbes. He was accused of intending to restore the Douglasses to their forfeited estates and honors; which improbable story being supported by some venal evidence, the unhappy young man was condemned and executed as a traitor. The king could not but see the injustice of this execution; and, to make some amends for it, banished Strahan the kingdom. Another execution, which happened a few days after, was even more inhuman. The earl of Angus, finding that he could not regain the favor of the king, had recourse to a method usual in those days for attracting his notice, viz. the committing of depredations on the borders. This crime was sufficient with James to occasion the death of his innocent sister, the dowager lady of Glamis. She had been courted by one Lyon, whom she had rejected in favor of a gentleman of the name of Campbell. Lyon, exasperated at his repulse, found means of admittance to James, whom he filled with the greatest terrors on account of the practices of the family of Angus; and at last charged the lady, her husband, and an old priest, with a design of poisoning the king. The parties were all remarkable for the

quiet and innocent lives they led; and this circumstance was by their diabolical accuser turned to their prejudice, by representing it as the effect of cunning. However, the evidence against the lady appeared so absurd and contradictory that some of the judges were for dropping the prosecution, and others for recommending her case to the king; but the majority prevailed to have it determined by a jury, who brought her in guilty; and she was condemned to be burnt alive on the Castle-hill of Edinburgh. The defence she made would have done honor to the ablest orator, and undeniably proved her innocence, but, though it was reported to James, it was so far from mitigating her sentence that it was aggravated by her husband being obliged to behold her execution. The unhappy man endeavoured to make his way over the castle wall of Edinburgh; but, the rope proving too short, he was dashed in pieces: and lord Glamis her son, though but a child, was imprisoned during the remainder of this reign. The old priest, though put to the torture, confessed nothing, and was freed. Lyon, like Strahan, was banished the kingdom. Whether these and other cruelties had affected the king's conscience, or whether his brain had been touched by the distractions of the different parties is unknown; but it is certain that, in 1540, he began to live retired: his palace appeared like the cloistered retreat of monks; his sleep was haunted by the most frightful dreams, which he construed into apparitions; and the body of Sir James Hamilton seemed continually present to his eyes. Perhaps the loss of his two sons, who died on the same day that Sir James was executed, might have contributed to bring this man more remarkably to his remembrance. No doubt it added to the gloom of his mind; and he now saw his court abandoned by almost all his nobility. At last James was in some degree roused from his inaction, by the preparations made against him by his uncle Henry VIII. of England. Some differences had already taken place: to accommodate which Henry had desired a conference with James at York. But this the latter, by the advice of his parliament, had declined. The consequence was a rupture between the two courts, and the English had taken twenty of the Scots' trading vessels. Henry threatened to revive the antiquated claim of the English superiority over Scotland, and had given orders for a formidable invasion of the Scottish borders. He complained that James had usurped the title of Defender of the Faith, to which he had added the word Christian, implying that Henry was an infidel: but the kings of Scotland had, some time before, been complimented by the papal see with that title. James, on the other hand, threw his eyes towards Ireland, the north part of which was actually peopled with inhabitants, who owned no sovereign but the king of Scotland, and who offered to serve James against the English: some of their chiefs having repaired to Scotland, and done homage to James. Henry had about this time declared himself king of Ireland, of which he was before only styled the lord; and James roundly asserted that he had a preferable claim to at least one-half of that island, which had been peopled by the subjects of Scot-

land. Though the Scottish historians of this reign take very little notice of this incident, James appears to have been very tenacious of his title; and a vast intercourse was certainly carried on between the subjects of Scotland and the northern Irish, who unanimously acknowledged James for their natural sovereign. Indeed, this was the only ground of quarrel that the king, with the least shadow of justice, could allege against Henry. His parliament being met, many public-spirited acts were passed; and, before the assembly was dissolved, the members renewed the acts against leasing making; by which is meant the misrepresenting of the king to his nobles, or the nobles to their king: and James, to dismiss them in good humor, passed an act of free grace for all crimes committed in his minority; the earl of Angus, and Sir George and Sir Archibald Douglas being excepted. Henry, after cutting off the head of his wife Catharine Howard, married and divorced the princess Anne of Cleves, and found himself either deserted or distrusted by all the princes on the continent, Protestant as well as Roman catholic. James and his clergy relied greatly on this public odium incurred by Henry; but the emperor, having again quarrelled with Francis, left Henry, whose dominions they had threatened jointly to invade, at liberty to continue his preparations against the Scots. He first ordered his fleet, then the most formidable of any in the world, to make fresh descents upon Scotland. At the same time he appointed a very considerable army to rendezvous upon the borders, under Sir Robert Bowes, the earl of Angus, and his brothers Sir George and Sir Archibald Douglas. James was every day expecting supplies of money, arms, and other necessaries from Francis; but, these not arriving, he reassembled his parliament on the 14th of March, who gratified him in all his demands. Many excellent regulations were made for the internal government, peace, and security of the kingdom, and against the exportation of money instead of merchandise. Acts were passed for fortifying and embellishing the town of Edinburgh, and for better supplying Scotland with wine. The royal revenue was increased by many additional estates; and the last hand was put to one of the best plans for a national militia that perhaps ever appeared. As yet, excepting in the disappointment which Henry met with from his nephew in not meeting him at York, he had no grounds for commencing hostilities. But the queen-mother was now dead; and consequently the connexion between James and Henry was weakened. Whatever her private character might have been, she was a happy instrument of preventing bloodshed between the two kingdoms. She was buried with royal honors at Perth. James, to all appearance, was at this time in a most desirable situation. His domain, by forfeitures and otherwise, far exceeded that of any of his predecessors. He could command the purses of his clergy; had large sums of ready money in his exchequer; his forts were well stored and fortified; and he was now daily receiving remittances of money, arms, and ammunition from France. All this show of happiness was only in appearance; for the affections of his nobility, and the wiser part of his subjects, were

now alienated from him more than ever, by his excessive bigotry and superstition. He had nominated the earl of Huntly to the command of his army on the borders, consisting of 10,000 men; and his lieutenant-general was Sir Walter Lindsay of Torphichen, who had seen a great deal of foreign service, and was esteemed an excellent officer. Huntly acquitted himself admirably in his commission; and was so well served by his spies as to have certain intelligence that the English intended to surprise and burn Jedburgh and Kelso. The English army under Sir Robert Bowes and the Douglasses, with other northern Englishmen, continued still upon the borders; and one of the resolutions the Scottish nobility and gentry had come to was, not to attack them on their own ground, nor to act offensively, unless their enemies invaded Scotland. Huntly being informed that the English had advanced on the 24th of August to a place called Haldanrig, and that they had destroyed great part of the Scottish and debateable lands, resolved to engage them: and the English were astonished when at day break they saw the Scots drawn up in order of battle. Neither party could now retreat without fighting; and Torphichen, who led the van, consisting of 2000 of the best troops of Scotland, charged the English so furiously that Huntly gained a complete and an easy victory. Above 200 of the English were killed, and 600 taken prisoners; among whom were their general Sir Robert Bowes, Sir William Mowbray, and about sixty of the most distinguished northern barons; the earl of Angus escaping by the swiftness of his horse. The loss of the Scots was inconsiderable. Meanwhile the duke of Norfolk, having raised a great army, had orders to march northwards, and to disperse a manifesto, complaining of James for having disappointed him of his interview at York, and reviving the ridiculous claim of superiority over the kingdom of Scotland. It was plain, from the words of this manifesto, that Henry was still placable towards James; and that he would easily have dropped that claim, if his nephew would have made any advances towards a reconciliation. The condition of James was now deplorable. The few faithful counsellors he had about him, such as Kirkaldy of Grange, then lord treasurer, plainly intimated that he could have no dependence on his nobles, as he was devoted to the clergy; and James sometimes, in a fit of distraction, would draw his dagger upon the cardinal and other ecclesiastics, when they came to him with fresh propositions of murder and proscriptions, and drive them out of his presence. But he had no constancy of mind; and he certainly put into his pocket a bloody scroll that had been brought him by his priests, beginning with the earl of Arran, the first subject of the kingdom. In one of his cooler moments he appointed lord Erskine, and some others of his nobility, to make a fresh attempt to gain time; and Henry even condescended to order the duke of Norfolk (who was then advanced as far as York), the lord privy seal, the bishop of Durham, and others, to treat with him. The conferences were short and unsuccessful. The duke bitterly complained that

the Scots sought only to amuse him till the season for action was over. In short, he considered both them and Learmonth, who was ordered to attend him, as so many spies, and treated them accordingly. It was the 21st of October before he entered the east borders of Scotland. According to the Scottish historians, his army consisted of 40,000 men; but the English have fixed it at 20,000. James affected to complain of this invasion as unprovoked; but he lost no time in preparing to repel the danger. The situation of his nobility, who were pressed by a foreign invasion on the one hand and domestic tyrants on the other, induced them to hold frequent consultations; the king, who was encamped with his army at Falla Moor, hearing of this, removed hastily to Edinburgh; from which he sent orders for his army to advance, and give battle to the duke of Norfolk. The answer of the nobility was, that they were determined not to attack the duke upon English ground; but that, if he invaded Scotland, they knew their duty. The earl of Huntly, who commanded the van of the Scottish army, consisting of 10,000 men, was of the same opinion; but no sooner did Norfolk pass the Tweed than he harassed the English army, cut off their foraging parties, and distressed them in such a manner that the duke agreed once more to a conference for peace; which was managed on the part of the Scots by the bishop of Orkney and Sir James Learmonth; but nothing was concluded. The English general, finding it now impossible to prosecute his invasion, re-passed the Tweed; and was harassed in his march by the earl of Huntly, who desisted from the pursuit when his enemies gained English ground. James, whose army at this time amounted to above 30,000 men, continued still at Edinburgh, from which he sent frequent messages to order his nobility and generals to follow the duke of Norfolk into England; but these were disregarded. James was flattered that now he had it in his power to be revenged for all the indignities that had been offered by England to Scotland. In this he was encouraged by the French ambassador, and the high opinion he had of his own troops. About the beginning of November he came to a resolution of reassembling his army, which was disbanded upon the duke of Norfolk's retreat. This project appeared so feasible and so promising that several of the nobility fell in with it, particularly lord Maxwell, the earls of Arran, Cassils, and Glencairn, with lords Fleming, Somerville, and Erskine: others represented, but in vain, that the arms of Scotland had already gained sufficient honor, by obliging the powerful army of the English, with their most experienced general at their head, to make a shameful retreat before a handful; that the force of Scotland was inferior to that of England; and that an honorable peace was still practicable. It was said, in reply to these considerations, that the state of the quarrel was now greatly altered; that Henry had in his manifesto declared his intention to enslave their country; that he treated the nobility as his vassals; that the duke of Norfolk had been guilty of burning the dwellings of the defenceless inhabitants, by laying above twenty villages and towns in ashes; and that no

Scotchman, who was not corrupted by Henry's gold, would oppose the king's will. The last, perhaps, was the chief argument that prevailed on lord Maxwell, a nobleman of great honor and courage, to agree to carry the war into England by Solway, provided he was at the head of 10,000 men. It was at last agreed that the earl of Arran and the cardinal should openly raise men, as if they intended to enter the east marches, where they were to make only a feint, while lord Maxwell was to make the real attempt upon the west. Private letters were every where circulated to raise the men who were to serve under the lord Maxwell; among whom were the earls of Cassils and Glencairn, the lords Fleming, Somerville, Erskine, and many other persons of great consideration. James, who was never suspected of want of courage, probably would have put himself at the head of this expedition, had he not been dissuaded from it by his priests and minions, who reminded him of the consultations at Falla Moor, and the other treasonable practices of the nobility. They added that, most of them being corrupted by the English gold, he could not be too much on his guard. He was at last persuaded to repair to the castle of Lochmaben near Carlaverock, and there to wait the issue of the inroad. It was probably at this place that James was prevailed on to come to the fatal resolution of appointing one Oliver Sinclair, a son of the house of Roslin, a favorite minion at court, to command the army in chief; and his commission was made out accordingly. On the 23d of November the Scots began their march at midnight; and, having passed the Esk, all the adjacent villages were seen in flames by the break of day. Sir Thomas Wharton, the English warden of those marches, Dacres and Mulgrave, hastily raised about 500 men, and drew them up upon an advantageous ground; when Sinclair, ordering the royal banner to be displayed, and being mounted on the shoulders of two tall men, produced and read his commission. It is impossible to conceive the consternation into which the Scots were thrown upon this occasion; their leaders setting the example, the whole army declared that they would rather surrender themselves prisoners to the English than submit to be commanded by such a general. In an instant all order in the Scottish army was broken down; horse and foot, soldiers and noblemen and peasants, were intermingled. The English general perceived this confusion: 100 of his light-horse advanced; they met with no resistance: the nobles were the first who surrendered themselves prisoners; and, the rest of the English advancing, they obtained a bloodless victory; for even the women and the boys made prisoners of Scotch soldiers, and none were killed. Lord Herbert relates the circumstances of this shameful affair, and agrees with the Scottish authorities on the whole; but mentions that only 800 common soldiers were made prisoners. The chief prisoners were the earls of Cassils and Glencairn, the lords Maxwell, Fleming, Somerville, Olliphant, and Gray, and above 200 gentlemen. James was then at Carlaverock, about twelve miles distant from the place of action, depressed in his spirits, and anxious about the event of the expedition, still called the Raid of Solway Moss.

When the news came, and that the earl of Arran and the cardinal were returned to Edinburgh, he was seized with an additional dejection of mind, which brought him to his grave. In such a situation every cruel action of his life wounded his conscience; and he at last sunk into a sullen melancholy, which admitted of no consolation. From Carlaverock he removed to Falkland; and sometimes expressed himself as if he thought the whole body of his nobility were in a conspiracy against him. The presence of the few attendants who were admitted into his chamber, and who were the wicked instruments of his misconduct, seemed to aggravate his sufferings, and he either could not or would not take any sustenance. His death being now inevitable, Beaton approached his bed side with a paper, to which he is said to have directed the king's hand, pretending that it was his last will. On the 18th of December, while James was in this deplorable state, a messenger came from Linlithgow, with an account that the queen was brought to bed of a daughter; and the last words he was distinctly heard to say were, 'It will end as it began: the crown came by a woman, and it will go with one; many miseries approach this poor kingdom: Henry will either master it by arms, or win it by marriage.' He then turned his face to the wall, and in broken ejaculations pronounced the word Solway Moss, and some faint expressions alluding to the disgrace which the Scots had just suffered there. In this state he languished for some days; and died on the 13th.

V. HISTORY OF SCOTLAND UNTIL THE UNION OF THE SCOTTISH AND ENGLISH CROWNS.—James V. was succeeded by his infant daughter Mary. He had taken no steps for the security of his kingdom, so that ambitious men had now another opportunity of throwing the public affairs into confusion. The situation of Scotland indeed at this time was very critical. Many of the nobility were prisoners in England, and those who remained at home were factious and turbulent. The nation was dispirited. Commotions were daily excited on account of religion, and Henry VIII. had formed a design of adding Scotland to his other dominions. By a testamentary deed which cardinal Beaton had forged in the name of his sovereign, he was appointed tutor to the queen and governor of the realm, and three of the principal nobility were named to act as his counsellors in the administration. The nobility and the people, however, calling in question the authenticity of this deed, which he could not establish, the cardinal was degraded; and the states advanced to the regency James Hamilton, earl of Arran, whom they judged to be entitled to this distinction, as the second person in the kingdom, and the nearest heir, after Mary, to the crown. 'The disgrace of cardinal Beaton,' Dr. Stuart observes, 'might have proved the destruction of his party, if the earl of Arran had been endowed with vigor of mind and ability. But he was too indolent to gain partizans, and too irresolute to fix them. Slight difficulties filled him with embarrassment, and great ones overpowered him. His enemies, applying themselves to the timidity of his disposition, betrayed him into weaknesses; and the esteem which his

gentleness had procured him in private life was lost in the contempt attending his public conduct, which was feeble, fluctuating, and inconsistent. The attachment which he professed for the reformed religion drew to him the love of the people; his high birth, and the mildness of his virtues, conciliated their respect; and, from his name being at the head of the roll of heretics which the clergy had presented to the late king, a sentiment of tenderness was mingled with his popularity. His conduct corresponded, at first, with the impressions entertained in his favor. Thomas Guilleme and John Rough, two celebrated preachers, were invited to live in his house; and he permitted them to declaim openly against the errors of the church of Rome. They attacked and exposed the supremacy of the pope, the worship of images, and the invocation of saints. Cardinal Beaton and the prelates were exceedingly provoked, and indefatigably active to defend the established doctrines. This public sanction afforded to the reformation was of little consequence, however, when compared with a measure which was soon after adopted by Robert lord Maxwell. He proposed that the liberty of reading the scriptures in the vulgar tongue should be permitted to the people; and that, for the future, no heretical guilt should be inferred against any person for having them in his possession or for making use of them. The regent and the three estates acknowledged the propriety of this proposal. Gavin Dunbar archbishop of Glasgow, and chancellor of Scotland, protested, indeed, for himself and for the church, that no act on this subject should pass and be effectual, till a provincial council of all the clergy of the kingdom should consider and determine, whether there was a necessity that the people should consult and study the scriptures in the vulgar tongue; but, his protestation being disregarded, the bill of the lord Maxwell was carried into a law, and the regent made it generally known by a proclamation. From this period copies of the bible were imported in great numbers from England; and, men allured by an appeal so flattering to their reason, were proud to recover from the supine ignorance in which they had been kept by an artful priesthood. To read became a common accomplishment; and books were multiplied in every quarter, which disclosed the pride, the tyranny, and the absurdities of the Romish church and superstitions. The death of James V. proved very favorable to the ambitious designs of Henry. He now proposed a union of the two kingdoms by the marriage of his son Edward VI. with Mary the young queen of Scotland. To promote this, he released the noblemen who had been taken prisoners at Solway, after having engaged them on oath, not only to concur in promoting the alliance, but to endeavour to procure him the charge and custody of the young queen, with the government of her kingdom, and the possession of her castles. The earl of Angus, and his brother, who had been fifteen years in exile, accompanied them to Scotland, and brought letters from Henry recommending them to the restitution of their honors and estates. The regent was inclined to favor the demands of persons of such

eminent station; but, though the states were inclined to the marriage, they refused to permit the removal of the queen into England, and treated with contempt the idea of giving the government of Scotland and the care of the castles to the king of England. Sir Ralph Sadler, the English ambassador, exerted all his endeavours to induce the regent to comply with the requisitions of his master; but all his intrigues were unsuccessful; and Henry at last authorised the commissioners to consent to treaties of amity and marriage, on the most favorable terms that could be procured. In consequence of these powers, it was agreed that a firm peace and alliance should take place between the two nations, and that they should mutually defend and protect one another in case of an invasion. The queen was to remain within her own dominions till she was ten years of age; and Henry was not to claim any share in the government. Six nobles, or their apparent heirs, were to be surrendered to him in security for the conveyance of the young queen into England, and for her marriage with prince Edward, as soon as she was ten years of age. It was also stipulated that, though the queen should have issue by Edward, Scotland should retain not only its name, but its laws and liberties. These conditions, however advantageous to Scotland, yet did not give entire satisfaction. Beaton, who had been imprisoned on suspicion of treasonable schemes, and was now released from his confinement by the influence of the queen-dowager, took all opportunities of exclaiming against the alliance, as tending to destroy the independency of the kingdom. He pointed out to the churchmen the dangers which arose from the prevalence of heresy, and urged them to unanimity and zeal. Awakening all their fears and selfishness, they granted him a large sum of money, with which he might gain partisans; the friars were instructed to preach against the treaties with England; and fanatical men were instructed to display their rage in offering indignities to Sir Ralph Sadler. Cardinal Beaton was not the only antagonist the regent had to deal with. The earls of Argyle, Huntly, Bothwell, and Murray, concurred in the opposition; and having collected some troops, and possessed themselves of the queen's person, they assumed all the authority of the government. They were joined by Matthew earl of Lennox, who was made to hope that he might espouse the queen-dowager and obtain the regency. He was also inclined to oppose the earl of Arran, from an ancient quarrel between their families, and from a claim he had to supersede him, both in the enjoyment of his personal estates and in the succession to the crown. The regent, alarmed at such a powerful combination, inclined to attend to some advances made him by the queen-dowager and cardinal. To refuse to confirm the treaties, after he had brought them to a conclusion, was, however, a step so repugnant to probability, that he could not be prevailed upon to adopt it. He therefore, in a solemn manner, ratified them in the abbey-church of Holyrood House, and commanded the great seal of Scotland to be appended to them. The same day he went to St. Andrews and issued a mandate to the cardi-

nal, requiring him to return to his allegiance. To this the prelate refused to pay any attention, or to move from his castle; upon which the regent denounced him a rebel, and threatened to compel him to submission by military force. But, in a few days after, the pusillanimous regent, meeting with Beaton, forsook the interest of Henry VIII. and embraced that of the queen-dowager and of France. Being in haste also to reconcile himself to the church of Rome, he renounced publicly, at Stirling, the opinions of the reformed, and received absolution from the hands of the cardinal. By this mean-spirited conduct the regent exposed himself to universal contempt, while cardinal Beaton usurped the whole authority. The earl of Lennox, finding that he had no hopes of success in his suit to the queen-dowager, engaged in negotiations with Henry, to place himself at the head of the Scottish lords who were in the English interest, and to assert the cause of the reformation.

The consequence of all this was a rupture with England. Henry not only delayed to ratify the treaties on his part, but ordered all the Scottish ships in the harbour of England to be taken and confiscated. This violent proceeding inflamed the national disgusts against the English alliance; and the party of the cardinal and queen-dowager thus obtained an increase of popularity. Henry himself, however, was so much accustomed to acts of outrage and violence, that he seemed to think the step he had taken a matter of no moment; and therefore demanded that the hostages, in terms of the treaty of marriage, should still be delivered up to him. But the cardinal and regent informed his ambassador, Sir Ralph Sadler, that from their own authority they could not command any of the nobles to be committed to him as hostages; and that the offensive strain of behaviour assumed by the English monarch might have altered the sentiments of the Scottish parliament with regard to a measure of such importance. After much altercation the conferences were broken off: and, as the lords who were released from captivity had promised to return prisoners to England, it now remained with them to fulfil their promise. None of them, however, had the courage to do so, excepting the earl of Cassils; and Henry, being struck with his punctilious sense of honor, dismissed him loaded with presents. Cardinal Beaton, being thus in possession of power, took measures to secure it. The coronation of the queen was celebrated at Stirling; a council was chosen to direct and assist the regent in the greater affairs of state, at the head of which was the queen-dowager: John Hamilton, abbot of Paisley, who had acquired an ascendancy over the regent, was promoted to the privy seal, and made treasurer of the kingdom; and cardinal Beaton, upon the request of the regent and the three estates, accepted the office of lord high chancellor. After the flatteries and the hopes with which the earl of Lennox had been amused, the cardinal had reason to dread the utmost warmth of his resentment. He had therefore written to Francis I. giving a detail of the critical situation of affairs in Scotland, and entreating him to recall to France the earl of Lennox, who was now

interested to oppose the influence and operations of the queen-dowager. But the indignation, with which the treachery of the cardinal had inflamed the earl of Lennox precipitated him into immediate action, and defeated the intention of this artifice. In the hostile situation of his mind towards Scotland, an opportunity of commencing hostilities had presented itself. Five ships had arrived in the Clyde from France, loaded with warlike stores, and having on board the patriarch of Venice, Peter Contarini, legate from Paul III., with La Brosse, and James Mesnaige, ambassadors from France; and 30,000 crowns, which were to be employed in strengthening the French faction, and to be distributed by the queen-dowager and the cardinal. Prevailing with the commanders of these vessels, who conceived him to be the fast friend of their monarch, he secured this money for his own use, and deposited the military stores in his castle of Dumbarton, under the care of George Stirling, the deputy governor, who at this time was entirely in his interests. By the successful application of this wealth the earl of Lennox called forth the full exertions of his party in levying a formidable army, with which he threatened the destruction of the regent and the cardinal, offering them battle in the fields between Leith and Edinburgh. The regent, not being in a condition to accept the challenge of his rival, had recourse to negotiation. Cardinal Beaton and the earl of Huntly proposed terms of amity, and exerted themselves with so much address that the earl of Lennox, losing the opportunity of chastising his enemies, consented to an accommodation, and indulged anew the hope of obtaining the queen-dowager in marriage. His army was dismissed, and he threw himself at the feet of his mistress, by whom he was, in appearance, favorably received; but many of his friends were seduced from him under different pretences; and at last, apprehending his total ruin from some secret enterprise, he fled to Glasgow, and fortified himself in that city. The regent collecting an army marched against him; and having defeated his friend the earl of Glencairn, in a bloody encounter, was able to reduce the place of strength in which he confided. In this ebb of his fortune, the earl of Lennox had no hope but from England. The revolution produced in the political state of Scotland by the arts of cardinal Beaton, while it defeated the intrigues of Henry VIII., pointed all its strength against the progress of the reformation. After abandoning his old friends, the regent, in connexion with the cardinal, was ambitious to undo all the services he had rendered to them. The three estates annulled the treaties of amity and marriage, and empowered commissioners to conclude an alliance with France. The regent discharged the two preachers Guilame and Rough, whom he had invited to impugn the doctrines of the church; and he drove back into England many pious persons, whose zeal had brought them to Scotland, to explain and advance the new opinions. He caressed with particular respect the legate whom the pope had sent to discourage the marriage of the young queen with the prince of Wales, and to promise his assistance against the enterprises of Henry VIII. He procured an act of parliament to be

passed for the persecution of heretics; and, upon the foundation of this authority, the most rigorous proceedings were concerted against the reformed; when the arms of England, rousing the apprehensions of the nation, gave the fullest employment to the regent and his counsellors. In the rage and anguish of disappointed ambition, the earl of Lennox made an offer to assist the views of the king of England; who, treating him as an ally, engaged, in the event of success, to give him in marriage his niece lady Margaret Douglas, and to invest him in the regency of Scotland. To establish the reformation in Scotland, to acquire the superiority over it to Henry VIII., and to effectuate the marriage of the prince of Wales with the queen of Scots, were the great objects of their confederacy. Henry, though engaged in a war with France, which required all his military force, could not resist the opportunity to execute his vengeance against Scotland. Edward Seymour earl of Hartford was appointed to command 10,000 men, who were embarked at Tinnmouth, about a fleet of 200 ships, under the direction of Sir John Dudley, lord Lisle. This army landed without opposition near Leith, and the earl of Hertford made it known to Sir Adam Otterburn, the provost of Edinburgh, that his commission empowered him to lay the country waste and desolate, unless the regent should deliver up the young queen to the king of England. It was answered that every extremity of distress would be endured, before the Scottish nation would submit to so ignominious a demand: 600 horse from Berwick, under lord Evers, now joined the earl of Hertford. Leith and Edinburgh, after a feeble resistance, yielded to the English commander, who abandoned them to pillage, and then set fire to them. A cruel devastation ensued in the surrounding villages and country, and an immense booty was conveyed on board the English fleet. But, while extreme terror was every where excited, the earl of Hertford reembarked a part of his troops, and ordered the remainder to march with expedition to the frontiers of England. The regent, assisted by cardinal Beaton and the earls of Huntly, Argyle, Bothwell, and Murray, was active, in the mean time, to collect an army, and to provide for the security of the kingdom. He felt, therefore, the greatest surprise on being relieved so unexpectedly from the most imminent danger; and an expedition conducted with so little discernment did not advance the measures of Henry VIII. To accomplish the marriage of the young queen with the prince of Wales, to possess himself of her person, or to achieve a conquest over Scotland, were all circumstances apparently within the reach of the English commander; and yet, in the moment of victory, he neglected to prosecute his advantages, and having inflamed the animosities of the Scottish nation, by a display of the passions and cruelty of his master, left them to recover from their disaster, and to improve their resources. The earl of Lennox, taking the opportunity of the English fleet, went to consult with Henry VIII. upon the desperate state of his affairs. He renewed his engagements with this monarch; and received in marriage the lady Margaret Douglas,

with possessions in England. Soon after he arrived in the Frith of Clyde, with eighteen ships and 600 soldiers, that he might secure the castle of Dumbarton, and employ himself in plundering and devastation. But George Stirling, to whom the castle was intrusted, refused to surrender it; and even obliged him to re-embark his troops. After engaging in a few petty incursions and skirmishes, he returned to England. In 1544 Henry consented to a truce; and Scotland, says Dr. Stuart, after having suffered the miseries of war, was subjected to the horrors of persecution. The regent had procured an act of parliament for the persecution of the reformed; and the cardinal, to draw to himself an additional splendor and power, had obtained from the pope the dignity of legate à latere. A visitation of his own diocese appeared to him the most proper method of commencing the proposed extirpation of heresy; and he carried with him in his train the regent, and many persons of distinction, to assist in his judicatories, and to share in his disgrace. In the town of Perth many persons were accused and condemned. The most trifling offences were regarded as atrocious crimes, and made the subjects of prosecution and punishment. Robert Lamb was hanged for affirming that the invocation of saints had no merit to save. William Anderson, James Reynold, and James Finlayson, for having abused an image of St. Francis, by putting horns upon his head. James Hunter, having kept them company, was found to be equally guilty, and hanged likewise. Helen Stirke, having refused, when in labor, to invoke the assistance of the Virgin, was drowned. Many of the burgesses of Perth, being suspected of heresy, were sent into banishment; and the lord Ruthven, the provost, was upon the same account dismissed from his office. The cardinal was equally strenuous in persecuting heresy elsewhere. But the clamor attending the executions of men of inferior station was now lost in the fame of the martyrdom of Mr. Wishart; a person who, while he was respectable by his birth, was highly eminent from the opinion entertained of his capacity and endowments. The historians of the protestant persuasion have spoken of this reformer in terms of the highest admiration. They extol his learning as extensive, insist on the extreme candor of his disposition, and ascribe to him the utmost purity of morals. They even imputed to him the spirit of prophecy. It may be sufficient to affirm that George Wishart was the most eminent preacher who had hitherto appeared in Scotland. His mind was cultivated by reflection and study, and he was amply possessed of those abilities and qualifications which excite the passions of the people. His ministry had been attended with the most flattering success; and his courage to encounter danger grew with his reputation. The day before he was apprehended, he said to John Knox, 'I am weary of the world, since I perceive that men are weary of God.' He had already reconciled himself to that terrible death which awaited him. He was found in the house of Cockburn of Ormiston, in East Lothian; who, refusing to deliver him to the servants of the regent, the earl of

Bothwell, the sheriff of the county, required that he should be entrusted to his care, and promised that no injury should be done to him. But the authority of the regent and his counsellors obliged the earl to surrender his charge. He was conveyed to the cardinal's castle at St. Andrews, and his trial was hurried on. The cardinal and the clergy, proceeding in it without the concurrence of the secular power, adjudged him to be burnt alive. In the circumstances of his execution there appears a deliberate and most barbarous cruelty. When led out to the stake, he was met by priests, who, mocking his condition, called upon him to pray to the virgin, that she might intercede with her Son for mercy to him. 'Forbear to tempt me, my brethren,' was his mild reply. A black coat of linen was put upon him by one executioner, and bags of powder were fastened to his body by another. Some pieces of ordnance were pointed to the place of execution. He spoke to the spectators, intreating them to remember that he was to die for the true gospel of Christ. Fire was communicated to the faggots. From a balcony in a tower of his castle, which was hung with tapestry, the cardinal and the prelates, reclining upon rich cushions, beheld the inhuman scene. This insolent triumph, more than all his afflictions, affected the magnanimity of the sufferer. He exclaimed that the enemy, who so proudly solaced himself, would perish in a few days, and be exposed ignominiously in the place which he now occupied. Cardinal Beaton took a pleasure in receiving the congratulations of the clergy upon a deed which it was thought would fill the enemies of the church with terror. But the indignation of the people was more excited than their fears. All ranks of men were disgusted with an exercise of power which despised every boundary of moderation and justice. The prediction of Mr. Wishart, suggested by the general odium which attended the cardinal, was considered by the disciples of this martyr as the effusion of a prophet; and perhaps gave occasion to the assassination that followed. Their complaints were attended to by Norman Lesley, the eldest son of the earl of Rothes, whom the cardinal had treated with indignity, though he had profited by his services. He consented to be their leader. The cardinal was in his castle of St. Andrews, which he was fortifying after the strongest fashion of that age. The conspirators, at different times, early in the morning entered into it. The gates were secured; and appointing a guard, that no intimation of their proceedings might go to the cardinal, they dismissed from the castle all his workmen separately, to the number of 100, and all his domestics, who amounted to no fewer than fifty persons. The eldest son of the earl of Arran, whom he kept as a hostage for his father's behaviour, was alone detained by them. The prelate, alarmed with their noise, looked from his window, and was informed that his castle was taken by Norman Lesley. It was in vain that he endeavoured to secure the door of his chamber by bolts and chests. The conspirators brought fire, and were ready to apply it, when, admitting them, he implored their mercy. Two of them struck him hastily with their swords. But James Melvil, rebuking their passion, told them that this work

and judgment of God, though secret, ought to be done with gravity. He reminded the cardinal, in general terms, of the enormity of his sins, and reproached him in a more particular manner with the death of Mr. Wishart. He swore that no hopes of his riches, no dread of his power, and no hatred to his person, were any motives which actuated him; but that he was moved to accomplish his destruction by the obstinacy and zeal manifested by him against Christ Jesus and his holy gospel. Waiting for no answer, he thrust the cardinal three times through the body with his dagger, on the 29th of May, 1546. The rumor that the castle was taken giving an alarm to the inhabitants of St. Andrew's, they came in crowds to gratify their curiosity, and to offer their assistance, according to the sentiments they entertained. The adherents and dependents of the cardinal were clamorous to see him; and the conspirators, carrying his dead body to the very window from which he had beheld the sufferings of Mr. Wishart, exposed it to their view.

The truce, in the mean time, which had been concluded with England was frequently interrupted; but no memorable battles were fought. Mutual deprivations kept alive the hostile spirit of the two kingdoms; and while the regent was making military preparations, which gave the promise of important events, a treaty of peace was finished between England and France, in which Francis I. took care to comprehend the Scottish nation. In this treaty it was stipulated by Henry that he was not to wage war against Scotland, unless he should be provoked by new and just causes of hostility. But the murderers of cardinal Beaton, apprehensive of their safety, had despatched messengers into England with applications to Henry for assistance; and, being joined by more than 120 of their friends, they took the resolution of keeping the castle, and of defending themselves. Henry, notwithstanding his treaty with France, resolved to embrace this opportunity of augmenting the disturbances of Scotland. He hastened to collect troops; and the regent and his counsellors pressed France for supplies in men and money, and military stores and artillery. The high places which the cardinal occupied were filled up immediately upon his death. John Hamilton, abbot of Paisley, was elected archbishop of St. Andrews, and George earl of Huntly was promoted to be chancellor. By these officers the regent was urged to proceed with vigor against the conspirators; and it was a matter of the greatest anxiety to him to recover his eldest son, whom they detained in custody. The clergy had, in the most solemn manner, pronounced them to be accursed; and agreed to furnish, for four months, a monthly subsidy of £3000 to defray the expense of reducing them to obedience. The queen dowager and the French faction were eager at the same time, to concur in avenging the assassination of a man to whose counsels and services they were so greatly indebted. And, that no dangerous use might be made of the eldest son of the earl of Arran, who, after his father, was the heir of the monarchy, an act of parliament was passed, excluding him from his birth-right while he remained in the possession of the

enemies of his country, and substituting his brothers in his place, according to their seniority. The dark politics of Henry suggested the necessity of this expedient; and in its meaning and tendency there may be remarked the spirit and greatness of a free people. A powerful army laid siege to the castle of St. Andrews, and continued their operations during four months; but no success attended the assailants. The fortifications were strong; and a communication with the besieged was open by sea to the king of England, who supplied them with arms and provisions. The garrison received his pay, and the principal conspirators had pensions from him. In return for his generosity, they were engaged to promote the marriage of his son with the young queen; to advance the reformation; and to keep in custody the eldest son of the regent. Negotiation succeeded to hostility; and as the regent expected assistance from France, and the conspirators had the prospect of support from an English army, both parties were disposed to gain time. A treaty was entered into, in which the regent engaged to procure from Rome an absolution to the conspirators, and to obtain to them from the three estates an exemption from prosecutions of every kind. Upon the part of the besieged, it was stipulated, that, when these conditions were fulfilled, the castle should be surrendered, and the regent's son be delivered up to him. In the mean time Henry VIII. died; and in a few weeks after Francis I. also paid his debt to nature. But the former, before his death, had recommended the prosecution of the Scottish war; and Henry II., the successor of Francis, was eager to show his attention to the ancient ally of his nation. When the absolution arrived from Rome, the conspirators refused to consider it as valid; and an expression used by the pope, implying an absurdity, furnished an apology for their conduct. They knew that the counsellors of Edward VI. were making vigorous preparations to invade Scotland; they were confident of their present ability to defend themselves; and the advocates for the reformation encouraged them. The latter indeed, in the mean time, adopted too many of the intolerant maxims of the Roman Catholics, and many of them congratulated the conspirators upon what they called their godly deed and enterprise. Rough, who had formerly been chaplain to the regent, entered the castle and joined them. At this time also John Knox began to distinguish himself in an eminent manner, both by his success in argument, and the unbounded freedom of his discourse; while the Roman clergy, every where defeated and ashamed, implored the assistance of the regent and his council, who assured them that the laws against heretics should be put in execution.—Stuart's History. In the mean time the castle of St. Andrews, being invested by a fleet of sixteen sail under admiral Strozzi from France, was obliged to capitulate. Honorable terms were granted to the conspirators; but, after being conveyed to France, they were cruelly used, from the hatred entertained by the Catholics against the Protestants. Many were confined in prisons; and others, among whom, says Dr. Stuart, was John Knox, were sent to the galleys.

The castle itself was razed to the ground. The same year, 1547, Scotland was invaded by an English army under the duke of Somerset, who had been chosen protector of England during the minority of Edward VI. The design of this invasion was to oblige the Scots to comply with the scheme of Henry VIII., and conclude a marriage between Edward and the young queen of Scotland. The English army consisted of 13,000 men; besides which the protector had a fleet of sixty sail, one-half of which were ships of war, and the others were vessels laden with provisions and military stores. On the other hand, the regent opposed him with an army of 40,000. Before the commencement of hostilities, however, the duke of Somerset addressed a letter to the government, in which he pressed the marriage with such powerful arguments, and so clearly showed the benefits which would result from it to both nations, that the regent and his party, who were averse to peace, thought proper to suppress it, and to circulate a report that the English had come to force away the queen, and to reduce the kingdom to a state of dependence. All hopes of an accommodation being thus removed, the English army advanced to give battle to the Scots. They found the latter posted in the most advantageous situation, around the villages of Musselburgh, Inveresk, and Monkton; so that he could not force them to an action, at the same time that he found himself in danger of having his communication with his ships cut off, which would have totally deprived his army of the means of subsistence. In this dangerous situation he had again recourse to negotiation, and offered terms still more favorable than before. He now declared himself ready to retire into England, and to make ample compensation for the injuries committed by his army, if the Scottish government would promise that the queen should not be contracted to a foreign prince, but should be kept at home till she was of age to choose a husband for herself, with the consent of the nobility. These concessions increased the confidence of the regent so much, that, without taking advantage of the strength of his situation, he resolved to come to a general engagement. The protector moved towards Pinkey, a gentleman's seat, east of Musselburgh; and the regent, conceiving that he meant to take refuge in his fleet, changed the strong ground in which he was encamped. He commanded his army to pass the Esk, and to approach the English forces, which were posted on the middle of Faside Hill. The earl of Angus led on the van; the main body marched under the regent; and the earl of Huntly commanded in the rear. It was the regent's intention to seize the top of the hill. The lord Gray, to defeat this purpose, charged the earl of Angus, at the head of the English cavalry. They were received upon the points of the Scottish spears, which were longer than the lances of the English horsemen, and put to flight. The earl of Warwick, more successful with his command of infantry, advanced to the attack. The ordnance from the fleet assisted his operations; and a brisk fire from the English artillery, which was planted on a rising ground, served still more to intimidate

the Scottish soldiery. The remaining troops under the protector were moving slowly and in the best order, to take a share in the engagement. The earl of Angus was not well supported by the regent and the earl of Huntly. A panic spread through the Scottish army. It fled in different ways, presenting a scene of the greatest havoc and confusion. Few perished in the fight; but the chase continuing in one direction to Edinburgh, and in another to Dalkeith, with the utmost fury, a prodigious slaughter was made. The loss of the English did not amount to 500 men; but 10,000 soldiers perished on the side of the Scots. A multitude of prisoners were taken; and among these the earl of Huntly, the lord high chancellor.

Amidst the consternation of this decisive victory, the duke of Somerset had a full opportunity of effectuating the marriage and union projected by Henry VIII., and on the subject of which such fond anxiety was entertained by the English nation. But, the cabals of his enemies threatening his destruction at home, he yielded to the necessities of his ambition, and marched back into England. He took precautions, however, to secure an entry into Scotland, both by sea and land. A garrison of 200 men was placed in the isle of St. Kolumba in the Forth, and two ships of war were left as a guard to it. A garrison was also stationed in the castle of Broughty, in the mouth of the Tay. When he passed through the Merse and Teviotdale, the leading men of these counties repaired to him; and, taking an oath of allegiance to king Edward, surrendered their places of strength. Some of these he demolished, and to others he added new fortifications. Hume castle was garrisoned with 200 men, and entrusted to Sir Edward Dudley; and he posted 300 soldiers, with 200 pioneers, in the castle of Roxburgh, under Sir Ralph Bulmer. The only resource of the regent now was the hope of assistance from France. The young queen was lodged in the castle of Dumbarton, under the care of the lords Erskine and Livingstone; and ambassadors were sent to Henry II. of France, acquainting him with the disaster at Pinkey, and imploring his assistance. The regent had asked permission from the protector to treat of peace, and the earl of Warwick was appointed to wait for them at Berwick; but none were ever sent on the part of Scotland. Hostilities were soon recommenced by the English. Lord Gray led an army into Scotland, fortified the town of Haddington, took the castles of Yester and Dalkeith, laid waste the Merse and the counties of East and Mid-Lothian. On the other hand, in June, 1548, M. De Desse, a French officer of great reputation, landed at Leith with 6000 soldiers, and a formidable train of artillery. In the mean time the regent was in disgrace on account of the disaster at Pinkey; and the queen-dowager, to supersede his authority, improved this circumstance to her own advantage. As her power and interest could best be supported by France, she resolved to enter into the strictest alliance with that kingdom. It had been proposed that the dauphin of France should marry the queen of Scotland; and this proposal now met with many partisans, the hos-

tilities of the English having lost a great number of friends to the cause of that country. It was resolved to send the queen immediately to France, which would remove the cause of the present contentions, and her subsequent marriage with the dauphin would in the fullest manner confirm the friendship betwixt the two nations. The French government also entered deeply into the scheme: and, to promote it, made presents of great value to many of the Scottish nobility. The regent himself was gained over by a pension of 12,000 livres, and the title of duke of Chatelherault. M. de Villegagnon, who commanded four galleys in the harbour of Leith, making a feint as if he intended to proceed instantly to France, tacked about to the north, and, sailing round the isles, received the queen at Dumbarton; whence he conveyed her to France, and delivered her to her uncles, the princes of Lorraine, in July, 1548. The siege of Haddington had been undertaken as soon as the French auxiliaries arrived, and was now conducted with vigor. To reinforce the garrison 1500 horse advanced from Berwick; but, an ambuscade being laid for them, they were almost totally destroyed. Another body of English troops, however, which amounted only to 300 persons, was more successful. Eluding the vigilance of the Scots and the French, they entered Haddington, and supplied the besieged with ammunition and provisions. Lord Seymour, high admiral of England, made a descent upon Fife with 1200 men and some pieces of artillery; but was driven back to his ships with great slaughter by James Stuart, natural brother to the young queen, who opposed him at the head of the county militia. A second descent was made by him at Montrose; but, being equally unsuccessful there, he left Scotland without performing any important achievement. Having collected an army of 17,000 men, and adding to it 3000 German Protestants, the protector put it under the direction of the earl of Shrewsbury. Upon the approach of the English, Desse, though he had been reinforced with 15,000 Scots, thought it more prudent to retreat than to hazard a decisive battle. He raised the siege of Haddington, and marched to Edinburgh. The earl of Shrewsbury did not follow him to force an engagement: jealousies had arisen between the Scots and the French. The insolence and vanity of the latter, encouraged by their superior skill in military arts, had offended the quick and impatient spirit of the former. The fretfulness of the Scots was augmented by the calamities inseparable from war; and, after the conveyance of the young queen to France, the peculiar advantage conferred upon that kingdom by this transaction was fully understood, and appeared highly disgraceful and impolitic. In this state of their humor Desse found not at Edinburgh the reception he expected. The quartering of his soldiers produced disputes, which ended in an insurrection of the inhabitants. The French fired among the citizens. Several persons of distinction fell, and among these were the provost of Edinburgh and his son. The national discontents and inquietudes were driven, by this event, to the most dangerous extremity; and

Desse, who was a man of ability, thought of giving employment to his troops, and of flattering the people by the splendor of some martial exploit. The earl of Shrewsbury, after supplying Haddington with troops, provisions, and military stores, retired with his army into England. Its garrison was in the enjoyment of security, and unsuspecting of danger. Marching in the night, Desse reached this important post; and, destroying a fort of observation, prepared to storm the main gates of the city, when the garrison took the alarm. A French deserter pointing a double cannon to the thickest ranks of the assailants, the shot was incredibly destructive, and threw them into confusion. In the height of their consternation, a vigorous sally was made by the besieged. Desse renewed the assault in the morning, and was again discomfited. He now turned his arms against Broughty castle; and, though unable to reduce it, yet recovered the neighbouring town of Dundee, which had fallen into the possession of the enemy. Hume castle was retaken by stratagem. Desse entered Jedburgh, and put its garrison to the sword; ravaged the English borders in different incursions, and obtained several petty victories. Leith, which from a small village had grown into a town, was fortified by him; and the island of Inchkeith, nearly opposite to the harbour, being occupied by English troops, he made them prisoners, after a brisk encounter. His activity and valor could not, however, compose the discontents of the Scots; and, the queen-dowager having written to Henry II. to recall him, he was succeeded in his command by M. de Thermes, who was accompanied into Scotland by Monluc bishop of Valence, a person highly esteemed for his address and ability. This ecclesiastic was designed to supply the loss of cardinal Beaton, and to discharge the office of lord high chancellor of Scotland. But the jealousies of the nation increasing, and the queen-dowager herself suspecting his ambition and turbulence, he soon returned home. De Thermes brought with him from France a reinforcement of 1000 foot, 2000 horse, and 100 men at arms. He erected a fort at Aberlady, to distress the garrison of Haddington, and to intercept its supplies. At Coldingham he destroyed a troop of Spaniards in the English pay. Fast castle was regained by surprise. Distractions in the English court did not permit the protector to act vigorously in the war. The earl of Warwick was diverted from marching an army into Scotland. An infectious distemper had broke out in the garrison at Haddington; and it could not hold out for any time against the Scots. The earl of Rutland, therefore, with a body of troops, entered the town; and, after setting fire to it, conducted the garrison and artillery to Berwick. The regent was solicitous to recover the other places still in the power of the English. De Thermes laid siege to Broughty castle, and took it. He then besieged Lauder; and the garrison was about to surrender at discretion, when the news arrived that a peace was concluded between France, England, and Scotland. By this treaty Henry II. obtained the restitution of Boulogne and its dependencies, which had been taken from him by

the king of England, and for which he paid 400,000 crowns. No opposition was to be given to the marriage of the queen of Scotland with the dauphin: the fortresses of Lauder and Douglas were to be restored to the Scots, and the English were to destroy the castles of Roxburgh and Eymouth. After the ratifications of the articles, the queen-dowager embarked with Leon Stozzi for France, attended by many of the nobility. Having arrived there, she communicated to the king her design of assuming the government of Scotland, and he promised to assist her. But the jealousy which prevailed between the Scots and French rendered the accomplishment of this design very difficult. To remove the regent by an act of power might endanger the scheme altogether; but it might be possible to persuade him to resign his office. For this purpose intrigues were immediately commenced; indeed the regent himself contributed to promote their schemes by his violent persecution of the reformed. The peace was hardly proclaimed, when he provoked the public resentment by an action of sanguinary insolence. Adam Wallace, a man of simple manners, but of great zeal for the reformation, was accused of heresy, and brought to trial in the church of the Black Friars at Edinburgh. In the presence of the regent, the earl of Angus, Huntly, Glencairn, and other persons of distinction and rank, he was charged with preaching without any authority of law, with baptizing one of his own children, and with denying the doctrine of purgatory; and it was strenuously objected to him that he accounted prayers to the saints and the dead to be a useless superstition; that he had pronounced the mass to be an idolatrous service; and that he had affirmed that the bread and wine in the sacrament of the altar, after the words of the consecration, do not change their nature, but continue to be bread and wine. These offences were esteemed too terrible to admit of any pardon.—The earl of Glencairn alone protested against his punishment. The pious sufferer bore with resignation the contumelious insults of the clergy; and by his courage and patience at the stake recommended the opinions he had embraced. Other acts of atrocity and violence stained the administration of the regent. In his own palace, William Crichton, a man of family and reputation, was assassinated by lord Semple. No attempt was made to punish the murderer. His daughter was the concubine of the archbishop of St. Andrews, and her tears and entreaties were more powerful than justice. John Melvil, a person respectable by his birth and his fortune, had written to an English gentleman, recommending to his care a friend who was then a captive in England. This letter contained no improper information in matters of state; and no suspicion of any crime against Melvil could be inferred from it. Yet the regent brought him to trial upon a charge of high treason; and, for an act of humanity and friendship, he was condemned to lose his head. The estate of Melvil, forfeited to his family, was given to David, the youngest son of the regent.

Amidst the amusements of the French court, the queen-dowager was not inattentive to the

scheme of ambition which she had projected. The earls of Huntly and Sutherland, Marischal and Cassils, with lord Maxwell, and other persons of éminence who had accompanied her to France, were gained over to her interests. Robert Carnegie of Kinnaird, David Panter, bishop of Ross, and Gavin Hamilton, commendator of Kilwinning, being also at this time in that kingdom, and having the greatest weight with the regent, were treated with a most punctilious respect. Henry declared to them his earnest wish that the queen-dowager might attain the government of Scotland. In case the regent should consent to this measure, he expressed a firm intention that no detriment should happen to his consequence and affairs; and he desired them to inform him that he had already confirmed his title of duke of Chatelherault, had advanced his son to be captain of the Scots gendarmes in France, and was ready to tender other marks of favor to his family. With this message, Mr. Carnegie was sent to Scotland; and a few days after he was followed by the bishop of Ross. The bishop, being a man of eloquence and authority, obtained a promise from the regent to resign; and for this service he received, as a recompense, an abbey in Poitou. The queen-dowager, full of hopes, now prepared to return to Scotland, and in her way thither made use of a safe-conduct obtained from Edward VI. by the king of France. The English monarch, however, had not yet forgót the beautiful queen of Scotland; and did not fail to urge his superiority of claim to her over the dauphin. The queen-dowager did not seriously enter upon the business: only in general terms complained of the hostilities committed by the English; and two days after this conversation she proceeded towards Scotland, where she was conducted by the earl of Bothwell, lord Hume, and some other noblemen, to Edinburgh, amidst the acclamations of the people. She had not long been returned to the capital, when the bad conduct of the regent afforded her an opportunity of exerting her influence. The regent, having proposed a judicial circuit through the kingdom, under pretence of repressing crimes and disorders, molested the people by plunder and rapine. Great fines were levied for offences pretended as well as real; and the protestants in particular were the objects of his severity. In his progress he was accompanied by the queen dowager; and, as she affected to behave in a manner directly opposite, the most disagreeable comparisons were made between her and the regent. The bishop of Ross did not fail to put him in mind of his promise, but he wished still to continue in power. His resolution, however, failed him, on the intimation of a parliamentary enquiry into his administration. An agreement with the queen dowager then took place; and it was stipulated that he should succeed to the throne upon the death of the queen without issue; that his son should enjoy the command of the gendarmes; that no enquiry should be made into the expenditure of the royal treasures; that no scrutiny into his government should take place; and that he should enjoy in the most ample manner his duchy and his pension. These articles were ra-

tified at an assembly of parliament, and the queen-dowager was formally invested with the regency.

Mary of Lorraine, the new regent, though she had with great difficulty attained the summit of her wishes, seemed to be much less conversant in the arts of government than in those of intrigue. She was scarcely settled in her new office when she rendered herself unpopular by her too great attachment to France, and by her persecution of the Protestants. She was entirely guided by the counsels of her brothers, the duke of Guise and the cardinal of Lorraine; and paid a devoted attention to those of M. d'Oysel the French ambassador. Several high offices were filled with Frenchmen, which excited the highest resentment of the Scottish nobility; and the commonalty were instantly prejudiced against her by the partiality she showed to the Papists. At first, however, she enacted many salutary laws; and, while she made a progress herself through the southern provinces of the kingdom to hold justiciary courts, she endeavoured to introduce order and law into the western counties and isles: first by the earl of Huntly, and afterwards by the earls of Argyll and Athol, to whom she granted commissions for this purpose. In another improvement, which the queen-regent attempted by the advice of her French council, she found herself opposed by her own people. It was proposed that the possessions of every proprietor of land in the kingdom should be valued and entered into registers; and that a proportional payment should be made by each. The application of this fund was to maintain a regular and standing body of soldiers. This guard or army, it was urged, being at all times in readiness to march against an enemy, would protect effectually the frontiers; and there would no longer be any necessity for the nobles to be continually in motion on every rumor of hostility or incursion from English invaders. No art, however, or argument could recommend these measures. A perpetual tax and a standing army were conceived to be the genuine characteristics of despotism. All ranks of men considered themselves insulted and abused; and 300 tenants of the crown assembling at Edinburgh, and giving way to their indignation, sent their remonstrances to the queen-regent in such strong and impressive language as induced her to abandon the scheme. Yet still the attempt which she had made left an impression in the minds of the people. They suspected her to be a secret enemy to their government and liberties; and they were convinced that Henry II. was engaging her in artifices that he might reduce Scotland to be a province of France. While an alarm about their civil rights was spreading among the people, the Protestants were rising daily in their spirit and in their hopes. John Knox, whose courage had been confirmed by misfortunes, and whose talents had improved by exercise, was at this time making a progress through Scotland. The characteristic peculiarities of Popery were the favorite topics of his declamation and censure. He treated the mass, in particular, with the most sovereign contempt, representing it as a remnant of idolatry. Many

of the nobility and gentry afforded him countenance and protection. They invited him to preach at their houses, and partook with him in the ordinances of religion after the reformed method. Religious societies and assemblies were held publicly in defiance of the Papists; and celebrated preachers were courted with assiduity to officiate in particular districts and towns. The clergy cited him to appear before them at Edinburgh, in the church of the Blackfriars. On the appointed day he presented himself, with a numerous attendance of gentlemen, who were determined to exert themselves in his behalf. The priesthood did not choose to proceed in his prosecution; and Knox, encouraged by this symptom of their tear, took the resolution to explain and inculcate his doctrines repeatedly and openly in the capital. In 1556 the earl of Glencairn took the earl Marischal to hear the exhortations of this celebrated preacher; and they were so much affected with his reasonings and rhetoric that they requested him to address the queen-regent upon the subject of the reformation of religion. In compliance with this request, he wrote a letter in terms more forcible than pleasing, and the earl of Glencairn delivered it with his own hand, in the expectation that some advantage might be obtained for the reformed. But the queen-regent was no less offended with the freedom of the nobleman than of the preacher; and, after perusing the paper, she gave it to James Beaton, archbishop of Glasgow, with an expression of disdain: 'Here, my lord, is a pasquil.' Amidst these occupations Knox received an invitation to take the charge of the English congregation at Geneva; which he accepted. The clergy called upon him, in his absence, to appear before them, condemned him to death as a heretic, and ordered him to be burned in effigy. This injurious treatment did not in the least obstruct the progress of the reformation. Desertions were made from popery in every town and village; and even many members of the church, both secular and regular, were forward to embrace the new principles, and to atone for their past mistakes by the bitterest raileries against the corruptions and folly of the Romish faith. The priests were treated in all places with ridicule and contempt. The images, crucifixes, and relics, which served to rouse the decaying fervors of superstition, were stolen from the churches, and trampled under foot. The bishops implored the assistance of the queen regent. Citations were given to the preachers to appear in their defence. They obeyed; but with such a formidable retinue that it was with difficulty she was permitted to apologise for her conduct. James Chalmers of Gaitgirth, pressing forward from the crowd, addressed himself to her: 'We vow to God that the devices of the prelates shall not be carried into execution. We are oppressed to maintain them in their idleness. They seek to undo and murder our preachers and us; and we are determined to submit no longer to this wickedness.' The multitude, applauding this speech, put their hands to their daggers. A trusty messenger was despatched to Geneva, inviting John Knox to return to his own country; but, upon further consideration, by opposite de-

spatches, Knox was requested to delay his journey for some time. To this zealous reformer their unsteadiness was a matter of serious affliction; and, in the answer, he rebuked them with severity, but entreated them not to faint under their purposes, from apprehensions of danger. To particular persons he wrote other addresses; and to all of them the greatest attention was paid. In 1557 a formal bond of agreement, which obtained the appellation of the first covenant, was entered into, and all the more eminent persons who favored the reformation were invited to subscribe it. The earls of Argyle, Glencairn, and Morton, with the lord Lorn, and John Erskine of Dun, led the way by subscribing it. All the subscribers to this deed, renouncing the superstitions and idolatry of the Church of Rome, promised to apply continually their whole power and wealth, and even to give up their lives, to forward and establish the word of God. They distinguished the reformed by calling them the Congregation of Christ; and, by the opprobrious title of the Congregation of Satan, they peculiarised the favorers of Popery. After the leaders of the reformation had subscribed the first covenant they addressed letters to Knox, urging in the strongest terms his return to Scotland; and, that their hopes of his assistance might not be disappointed, they sent another address to Calvin, the celebrated reformer, begging him to join his commands to their entreaties. The archbishop of St. Andrews, who perceived the rising storm, was in a difficult situation. A powerful combination threatened ruin to the church; and he had separated himself from the politics of the queen-regent. The zeal of the Roman Catholics pointed out strong measures to him; and his dispositions were pacific. The clergy were offended with his remissness. The reformers detested his loose principles, and were shocked with the depravity of his life. He tried the force of address and did not succeed. He then resolved to be severe, and was still more unsuccessful. The earl of Argyle was the most powerful of the reformers. To allure him from his party the archbishop of St. Andrews employed Sir David Hamilton. But the kindness he affected, and the advices he bestowed, were no compliment to this nobleman; and his threats were despised. The reformers, instead of losing their courage, felt a sentiment of exultation and triumph; and the earl of Argyle dying about this time he not only maintained the new doctrines in his last moments, but entreated his son to promote the public preaching of the gospel, and the utter ruin of superstition and idolatry. At length the archbishop and the prelates resolved on a furious persecution of the reformed. Walter Mill, a priest, having been long under the suspicion of heresy, was carried to St. Andrews, committed to prison, and accused before the archbishop and his suffragans. He was in an extreme old age; and had struggled all his life with poverty. He sunk not, however, under the hardness of his fate. To the articles of his accusation he replied with signal recollection and fortitude. The firmness of his mind, in the emaciated state of his body, excited admiration; and the insults of his enemies, and their contempt

served to discover his superiority over them. When the clergy declared him a heretic no temporal judge could be found to condemn him to the fire. He was respited to another day; and such great sympathy prevailed for his misfortunes that it was necessary to allure one of the archbishop's domestics to supply the place of the civil power, and to pronounce the sentence of condemnation. When brought to the stake he praised God that he had been called to seal the truth with his life; and he conjured the people, as they would escape eternal death, not to be overcome by the errors and the artifices of monks and priests, abbots and bishops. The barbarity of this execution affected the reformers with inexpressible horror. Subscriptions for mutual defence were taken. The leaders of the reformation, dispersing their emissaries to every quarter, encouraged the vehemence of the multitude. The covenant to establish a new form of religion extended far and wide. When the leaders of the reformation were apprised of the ardent zeal of the people, and considered the great number of subscriptions which had been collected in the different counties of the kingdom, they assembled to deliberate concerning the steps to be pursued. It was resolved that a public supplication of the whole body of the Protestants should be presented to the queen-regent; which, after complaining of the injuries they had suffered, should require her to bestow upon them her support and assistance, and urge her to proceed in the work of a reformation. To explain their full meaning, a schedule, containing particular demands, was to be presented to her scrutiny. To Sir James Sandilands of Calder they committed the important charge of their manifesto and articles of reformation. His character was in the highest estimation; his services to his country were numerous; his integrity and honor were superior to all suspicion; and his age and experience gave him authority and reverence. The petition of the Protestants was expressed in strong but respectful terms. They told the queen regent that, though they had been provoked by great injuries, they had yet, during a long period, abstained from assembling themselves, and from making known to her their complaints. Banishment, confiscation of goods, and death in its most cruel shape, were evils with which the reformed had been afflicted; and they were still exposed to these dreadful calamities. Compelled by their sufferings they presumed to ask a remedy against the tyranny of the prelates and the estate ecclesiastical. They had usurped an unlimited dominion over the minds of men. Whatever they commanded, though without any sanction from the word of God, must be obeyed. Whatever they prohibited, though from their own authority only, it was necessary to avoid. All arguments and remonstrances were equally fruitless and vain. The fire, the faggot, and the sword, were the weapons with which the church enforced and vindicated her mandates. By these, of late years, many of their brethren had fallen; and, upon this account, they were troubled and wounded in their consciences. For, conceiving themselves to be a part of that power which God had established in this kingdom, it was their

duty to have defended them, or to have concurred with them in an open avowal of their common religion. They now take the opportunity to make this avowal. They break a silence which may be misinterpreted into a justification of the cruelties of their enemies; and, disdaining all farther dissimulation in matters which concern the glory of God, their present happiness, and their future salvation, they demand that the original purity of the Christian religion shall be restored, and that the government shall be so improved as to afford to them a security in their persons, their opinions, and their property. With this petition of the Protestants Sir James Sandilands presented their schedule of demands, or the preliminary articles of the reformation. They were in the spirit of their supplication, and of the following tenor:— I. It shall be lawful to the reformed to peruse the Scriptures in the vulgar tongue; and to employ also their native language in prayer publicly and in private. II. It shall be permitted to any person qualified by knowledge to interpret and explain the difficult passages in the Scriptures. III. The election of ministers shall take place according to the rules of the primitive church; and those who elect shall enquire diligently into the lives and doctrines of the persons whom they admit to the clerical office. IV. The holy sacrament of baptism shall be celebrated in the vulgar tongue, that its institution and nature may be the more generally understood. V. The holy sacrament of the Lord's Supper shall likewise be administered in the vulgar tongue; and in this communion, as well as in the ceremonial of baptism, a becoming respect shall be paid to the plain institution of Christ Jesus. VI. The wicked and licentious lives of the bishops and estate ecclesiastical shall be reformed; and, if they discharge not the duties of true and faithful pastors, they shall be compelled to desist from their ministry and functions.

The queen-regent now found it necessary to flatter the Protestants. She assured them by Sir James Sandilands, their orator or commissioner, that every thing they could legally desire should be granted to them; and that, in the mean time, they might, without molestation, employ the vulgar tongue in their prayers and religious exercises. But, upon the pretence that no encouragement might be given to tumults and riot, she requested that they would hold no public assemblies in Edinburgh or Leith. The Congregation, for this name was now assumed by the Protestants, were transported with these proofs of her regard; and, while they sought to advance still higher in her esteem by the inoffensive quietness of their carriage, they were encouraged in the undertaking they had begun. Nor to the clergy, who at this time were holding a provincial council at Edinburgh, did the Congregation scruple to communicate the articles of the intended reformation. The latter received their demands with a storm of rage, which died away, however, in innocent debility. Upon recovering from their passions, they offered to submit the controversy between them and the reformed to a public disputation. The Congregation did not refuse this mode of trial; and desired, as their

only conditions, that the Scriptures might be considered as the standards of orthodoxy and truth, and that those of their brethren who were in exile and under persecution might be permitted to assist them. These reasonable requests were not, however, complied with; and the church would allow no rule of right but the canon law and its own councils. Terms of reconciliation were then offered on the part of the estate ecclesiastical. It held out to the Protestants the liberty of praying and administering the sacraments in the vulgar tongue, if they would pay reverence to the mass, acknowledge purgatory, invoke the saints, and admit of petitions for the dead. To conditions so ineffectual and absurd the Congregation did not deign to return any answer. The meeting of the parliament approached. The parties in contention were agitated with anxieties, apprehensions, and hopes. An expectation of firm and open assistance from the queen-regent gave courage to the reformed; and, from the parliamentary influence of their friends in the greater and the lesser baronage, they expected the most important services. They drew up with eagerness the articles which they wished to be passed into a law; and, as the spirit and sense of their transactions are to be gathered in the completest manner from the papers which were framed by themselves, it is proper to attend to them. Their petitions were few and explicit. I. They could not, in consequence of principles which they had embraced from a conviction of their truth, participate in the Romish religion. It was therefore their desire that all the acts of parliament giving authority to the church to proceed against them as heretics should be abrogated; or at least that their power should be suspended till the disputes which had arisen were determined and brought to a conclusion. II. They did not mean that all men should be at liberty to profess what religion they pleased, without the control of authority. They consented that all transgressors in matters of faith should be carried before the temporal judge. But it was their wish that the clergy should have only the power to accuse; and they thought it conformable to justice that a copy of the criminal charge should be lodged with the party upon trial, and that a competent time should be allowed him to defend himself. III. They insisted that every defence consistent with law should be permitted to the party accused; and that objections to witnesses, founded in truth and reason, should operate to his favor. IV. They desired that the party accused should have permission to interpret and explain his own opinions; and that his declaration should carry a greater evidence than the deposition of any witness; as no person ought to be punished for religion, who is not obstinate in a wicked or damnable tenet. V. In fine they urged that no Protestant should be condemned for heresy, without being convicted by the word of God, of the want of that faith which is necessary to salvation. The congregation presented these articles to the queen-regent, expecting that she would not only propose them to the three estates assembled in parliament, but employ all her influence to recommend them. But, finding them-

selves disappointed, they began to suspect her sincerity; and they were sensible that their petitions, though they should be carried in parliament, could not pass into a law without her consent. They therefore abstained from presenting them: but, as their complaints and desires were fully known in parliament, they ordered a solemn declaration to be read there in their behalf, and demanded that it should be inserted in the public records. In this declaration, after expressing their regret for having been disappointed in their scheme of reformation, they protested that no blame should be imputed to them for continuing in their religion, which they believed to be founded in the word of God; that no danger of life, and no political pains, should be incurred by them, for disregarding statutes which support idolatry, and for violating rites which are of human invention; and that, if insurrections and tumults should disturb the realm, from the diversity of religious opinions, and if abuses should be corrected by violence, all the guilt, disorder, and inconvenience thence arising, instead of being applied to them, should be ascribed solely to those who had refused a timely redress of wrongs, and who had despised petitions presented with the humility of faithful subjects, and for the purposes of establishing the commandments of God, and a most just and salutary reformation. The three estates received this protest with attention and respect; but the intention of inserting it in the national records was abandoned by the congregation upon a formal promise from the queen-regent that all the matters in controversy should speedily be brought by her to a fortunate issue. While the protestants were thus making the most vigorous exertions in behalf of their spiritual liberties, the queen-regent, to establish herself the more effectually, used every effort to promote the marriage of her daughter with the dauphin of France. In 1557 commissioners were appointed to negotiate this marriage; but, while these negotiations were going on, the court of France acted in the most perfidious manner. At the age of fifteen, after solemnly ratifying the independency of Scotland, and the succession of the crown in the house of Hamilton, queen Mary was influenced by the king and her uncles, the princes of Lorraine, to sign privately three extraordinary deeds or instruments. By the first she conveyed the kingdom of Scotland to the king of France and his heirs, in the default of children of her own body. By the second she assigned him, if he should die without children, the possession of Scotland, till he should receive a million of pieces of gold, or be amply recompensed for the sums expended by him in the education of the queen of Scotland in France. By the third she confirmed both these grants in an express declaration that they contained the pure and genuine sentiments of her mind; and that any papers which might be obtained, either before or after her marriage, by means of the Scottish parliament, should be invalid, and of no force nor efficacy. On the 24th of April the nuptials were celebrated with uncommon pomp; and the dauphin Francis was allowed to assume the title of king of Scotland.

The French court demanded for the dauphin the crown and other ensigns of royalty belonging to Scotland; but the commissioners had no power to comply with the request. It was then desired that, when they returned home, they should use all their influence to procure the crown matrimonial of Scotland for the dauphin. This also was refused; the court of France was disgusted; and four of the commissioners died, it was supposed of poison, given them by the princes of Lorraine. This subject, however, was pressed, on the return of the surviving commissioners, by the king of France himself, the queen of Scotland, and the queen-regent. The Protestants also joined their interest, hoping thereby to gain over the queen and queen-regent to their party; so that an act of parliament was at length passed, by which the crown matrimonial was given to the dauphin during the time of his marriage with queen Mary; but without any prejudice to the liberties of the kingdom, to the heirs of her body, or to the order of succession. With so many restraints it is difficult to see the advantages which could accrue from this gift so earnestly sought after; and it is very probable that the usurpations of France in consequence of it would have been productive of many disturbances; but these were prevented by the death of Francis II., in December 1560. But before this event took place, Scotland was, by the intrigues of France, involved in confusion on another account. After the death of Mary I. queen of England, and daughter to Henry VIII., the princes of Guise insisted on the claim of Mary queen of Scots to the crown of England, in preference to that of Elizabeth, whom they looked upon as illegitimate. This claim was supported by the king of France, who prevailed with the queen of Scots herself to assume the title of queen of England, and to stamp money under that character. The arms of England were quartered with those of France and Scotland; and employed as ornaments for the plate and furniture of Mary and the dauphin. Thus was laid the foundation of an irreconcilable quarrel between Elizabeth and Mary; and to this we may ascribe the inveteracy with which the former persecuted the unhappy queen of Scotland every time she had it in her power. But, while they imprudently excited a quarrel with England, they yet more imprudently quarrelled also with the majority of the people of Scotland. As Elizabeth professed the Protestant religion, it was easily foreseen that the congregation, or body of the reformed in Scotland, would never consent to act against her in favor of a popish power; and, as they could not be gained, it was resolved to destroy them at once by putting to death all their leaders. The queen regent gave intimation of her design to re-establish popery by proclaiming a solemn observance of Easter, receiving the sacrament according to the Romish communion herself, and commanding all her household to receive it in the same manner. She next expressed herself in a contemptuous manner against the reformed, affirmed that they had insulted the royal dignity, and declared her intention of restoring it to its ancient lustre. The preachers of the congregation were next cited to appear at Stirling to

answer the charges which might be brought against them. Alexander earl of Glencairn, and Sir Hugh Campbell of Loudon, were deputed to admonish her not to persecute the preachers unless they had been obnoxious, by circulating erroneous doctrines, or disturbing the peace of government. The queen-regent, in a passion, told them that the preachers should be all banished Scotland though their doctrines were as sound as those of St. Paul. The deputies urged her former kind behaviour and promises; but the queen-regent answered that 'the promises of princes ought not to be exacted with rigor, and that they were binding only when subservient to their conveniency and pleasure.' To this they replied that in such a case they could not look upon her as their sovereign, and must renounce their allegiance as subjects. Soon after this transaction the queen-regent received the news that the reformation was established in Perth. Lord Ruthven, the provost of the city, was summoned to answer for this innovation; but his reply was that he had no dominion over the minds and consciences of men. The provost of Dundee, being ordered to apprehend an eminent preacher, named Paul Methven, sent him intelligence of the order that he might provide for his safety. The proclamation for observing Easter was every where despised and neglected, and people exclaimed against the mass as an idol New citations, in the mean time, had been given to the preachers to appear at Stirling. They obeyed the summons; but attended by such multitudes that the queen-regent, dreading their power, though they were without arms, intreated Mr. Erskine of Dun, whom they had sent before as a deputy, to stop their march; assuring him that all proceedings against the preachers should be stopped. In consequence of this the multitude dismissed; yet, when the day came on which the preachers should have appeared, the queen-regent, with unparalleled folly as well as treachery, caused them to be declared traitors, and proclaimed it criminal to afford them any subsistence. Mr. Erskine, exasperated by this shameful conduct, hastened to the congregation, apologised for his conduct, and urged them to proceed to the last extremities. At this critical period also John Knox, returning from Geneva, joined the Congregation at Perth, and pointed all the thunder of his eloquence against idolatry. A priest, in contempt of this reformer's rhetoric, prepared immediately after his sermon to say mass; and, opening a case which stood upon the altar, displayed the images of the saints. The great provocations which the Protestants had received, joined to the impious passions of the multitude thus excited, were now productive of the greatest disorders. Images were destroyed, monasteries pulled down, and their wealth either seized by the mob or given to the poor. The celebrated monasteries of the Gray and Black Friars, with that of the Carthusians, were attacked and demolished. The example of Perth was followed by Cupar in Fife; and, similar insurrections being apprehended in other places, the queen-regent determined to punish the inhabitants of Perth in the most exemplary manner. But the gentlemen of Fife, Angus, and Mearns

assembling their friends and dependents, formed a camp near Perth. The earl of Glencairn, with admirable celerity, advanced from Ayrshire with 2500 men. The queen-dowager also collected an army, but, being opposed by such a formidable power by the Protestants, she thought proper to conclude an agreement. The Protestants, however, dreaded her insincerity; and therefore entered into a second covenant to stand by and defend one another. Their fears were not vain. The queen-regent violated the treaty almost as soon as made, and began to treat the Protestants with severity. The earl of Argyle, and the prior of St. Andrew's, who about this time began to take the title of lord James Stuart, now openly headed the Protestant party, and prepared to collect their whole strength. The queen-regent opposed them with what forces she had, and which indeed chiefly consisted of her French auxiliaries; but, being again afraid of coming to an engagement, she consented to a truce until commissioners should be sent to treat with the lords of an effectual peace. No commissioners, however, were sent on her part; and the nobles, provoked by such complicated and unceasing treachery, resolved to push matters to the utmost extremity. The first exploit of the reformed was the taking of the town of Perth, where the queen-regent had placed a French garrison. The multitude, elated with this achievement, destroyed the palace and abbey of Scone, in spite of all the endeavours of their leaders, and even of Knox himself to save them. The queen-regent, apprehensive that the congregation would commit farther ravages to the southward, resolved to throw a garrison into Stirling; but the earl of Argyle and lord James Stuart anticipated her design, and arrived there the very day after the demolition of the abbey and palace of Scone. The people, incapable of restraint, and provoked beyond measure by the perfidious behaviour of the Catholic party, demolished all the monasteries in the neighbourhood, together with the fine abbey of Cambuskenneth, situated on the bank of the Forth. From Stirling they went to Linlithgow, where they committed their usual ravages upon every thing that they reckoned relics of idolatry; after which they advanced to Edinburgh: the queen-regent, alarmed at their approach, fled to Dunbar; and the Protestants took up their residence in Edinburgh.

The congregation, having thus got possession of the capital, assumed to themselves the ruling power of the kingdom, appointing preachers in all the churches, and seized the mint, with all the instruments of coinage. The queen-regent, unable to dispute the matter in the field, published a manifesto, in which she set forth their seditious behaviour, commanding them to leave Edinburgh within six hours, and enjoining her subjects to avoid their society under the pain of treason. The congregation having already lost somewhat of their popularity, by their violent proceedings, were now incapable of coping with government. As they had not established themselves in any regular body, or provided a fund for their support, they felt their strength decay, and multitudes of them returned to their habitations. These who remained found themselves

obliged to vindicate their conduct; and, in an address to the regent, to disclaim all treasonable intentions. Negotiations again took place, which ended abortively, and the queen-regent, who had taken this opportunity of collecting her forces, marched against the congregation on the 23d of July, 1559. At length the Protestants, finding themselves incapable of making head against their enemies, entered into a negotiation, by which all differences were for the present accommodated. The terms of this treaty were, that the town of Edinburgh should be open to the queen-dowager and her attendants; that the palace of Holyrood House and the mint should be delivered up to her; that the Protestants should be subject to the laws, and abstain from molesting the Roman Catholics in the exercise of their religion. On the queen's part, it was agreed, that the Protestants should have the free exercise of their religion, and that no foreign troops should enter the city of Edinburgh. Notwithstanding this treaty, the reformed had no confidence in the queen's sincerity. Having heard of the death of Henry II. of France, and the accession of Francis II. and Mary to that kingdom, they seem to have dreaded more danger than ever. They now entered into a third covenant; in which they engaged to refuse attendance to the queen-dowager, in case of any message or letter; and that, immediately on the receipt of any notice from her to any of their number, it should be communicated without reserve, and be made a common subject of scrutiny and deliberation. It was not long before they had occasion for all their constancy and strength. The queen-regent repented of the favorable terms she had granted the reformed; and, being denied the favor which she requested of saying mass in the High church of Edinburgh, she ordered them to be every where disturbed in the exercise of their religion. In this imprudent measure, the queen-regent was confirmed by letters which now came from Francis and Mary, promising a powerful army to support her. The envoy who brought these despatches also carried letters to lord James Stuart, now the principal leader of the Protestants, and natural brother to the queen. These letters were filled with reproaches and menaces, mixed with entreaties; and along with them the envoy delivered a verbal message, that the king his master was resolved rather to expend all the treasures of France than not to be revenged on the rebellious nobles who had disturbed the peace of Scotland. Lord James Stuart was not to be frightened by these menaces. He returned a cool and deliberate answer, apologising for the Protestants, and vindicating them from the charge of rebellion; but at the same time intimating his full resolution of continuing to head the reformed, as he had already done. The letters of Francis and Mary were soon followed by 1000 French soldiers, with money and military stores; and the commander was immediately despatched again to France, to solicit the assistance of as many more soldiers, with four ships of war, and 100 men at arms. But, before he could set out, La Bosse, another French commander, arrived with 2000 infantry; and, that the congregation might be defeated not only

ly arms but in disputation, the same ship brought three doctors of the Sorbonne, to show the pernicious tendency of the new doctrines. Thus matters were pushed beyond all hopes of reconciliation. The nation was universally alarmed on account of the introduction of French troops, to which they saw no end: the queen-regent attempted to quiet the minds of the public by a proclamation; but their fears increased the more. The congregation assembled at Stirling, where they were joined by the earl of Arran, and soon after by his father the duke of Chatelherault. They now deliberated on the measures to be followed with the queen-regent; and the result of their consultations was, that an expostulatory letter should be addressed to her. This was accordingly done; but, as the queen behaved with her usual duplicity, the nobles called the people to arms: mutual manifestoes were published; and both parties prepared to decide the contest by the sword. The congregation having seized Broughty castle, marched thence to Edinburgh. The queen-regent retired to Leith, which she had fortified and filled with French troops. Thither the nobles sent their last message to her, charging her with a design to overthrow the liberties of the kingdom. They requested her to command her Frenchmen and mercenaries to depart from Leith, and to make that place open and patent, not only to the inhabitants who had been dispossessed of their houses, but to all the inhabitants of Scotland. They declared that her denial of this request should be considered by them as a proof of her intention to reduce the kingdom to slavery; in which case they were determined to employ their utmost power to preserve its independency. Two days after this message the queen-regent sent to them the lord Lyon, whom she enjoined to tell them that she considered their demand not only as presumptuous, but as an encroachment on the royal authority; that it was an indignity to her to be dictated to by subjects; that Frenchmen were not to be treated as foreigners, being entitled to the same privileges with Scotchmen; and that she would neither disband her troops, nor command the town of Leith to be made open and patent. The lord Lyon then, in the name of the queen-regent, commanded the lords of the congregation to depart from Edinburgh and disperse themselves under the pain of high treason. The Protestants irritated by this answer, after some deliberation, degraded the queen-regent; and to this purpose the nobility, barons, and burghesses, all agreed in subscribing an edict, which was sent to the principal cities in Scotland and published in them.

The next step taken by the congregation was to summon Leith to surrender; but, meeting with defiance instead of submission, it was resolved to take the town by scalade. For this service ladders were framed in the church of St. Giles; a business which, interrupting the preachers in the exercise of public worship, made them prognosticate misfortune and miscarriage to the congregation. In the displeasure of the preachers the common people found a source of complaint; and the emissaries of the queen-dowager acting with indefatigable industry to divide her adver-

saries, and spread chagrin and dissatisfaction among them, discontent, animosity, and terror, prevailed to a great degree. The duke of Chatelherault discouraged many by his example. Defection from the Protestants added strength to the queen-dowager. The most secret deliberations of the confederated lords were revealed to her. The soldiery were clamorous for pay; and it was very difficult to procure money to satisfy their claims. Attempts to soothe and appease them, discovering their consequence, engendered mutinies. They put to death a domestic of the earl of Argyle, who endeavoured to compose them to order; they insulted several persons of rank who discovered a solicitude to pacify them; and they even ventured to declare that, for a proper reward, they were ready to suppress the reformation, and to re-establish the mass. It was absolutely necessary to give satisfaction to the Protestant soldiers. The lords and gentlemen of the congregation collected a considerable sum among them; but it was not equal to the exigency. The avarice of many withheld what they could afford, and the poverty of others did not permit them to indulge their generosity. It was resolved that each nobleman should surrender his silver plate to be struck into money. By the address, however, of the queen-dowager, the officers of the mint were bribed to conceal, or to convey to a distance, the stamps and instruments of coinage. A gloomy despair gave disquiet to the congregation, and threatened their ruin. Queen Elizabeth, with whose ministers the confederated lords maintained a correspondence at this time, had frequently promised them her assistance; but they could not now wait the event of a deputation to the court of England. In an extremity so pressing they therefore applied for a sum of money to Sir Ralph Sadler and Sir James Croft, the governors of Berwick and Cockburn of Ormiston, who was entrusted with this commission, obtained from them an aid of 4000 crowns. Traitors, however, in the councils of the congregation, having informed the queen-dowager of his errand and expedition, the earl of Bothwell, by her order, intercepted him upon his return, discomfited his retinue, and made a prize of the English subsidy. To rouse the spirit of the party, an attack was projected upon Leith, and some pieces of artillery were planted against it; but, before any charge could be made, the French soldiers sallied out to give battle to the troops of the congregation, possessed themselves of their cannon, and drove them back to Edinburgh. A report that the victors had entered the city with the fugitives filled it with disorder and dismay. The earl of Argyle and his Highlanders hastened to recover the honor of the day, and harassed the French in their retreat. This petty conflict, while it elated the queen-dowager, served to augment the dependence of the Protestants. Vain of their prowess, the French made a new sally from Leith, to intercept a supply of provisions and stores for the congregation. The earl of Arran and lord James Stuart attacked them, and obliged them to retire; but, pursuing them with too much heat, a fresh body of French troops made its appearance. It was prudent to retreat, but

difficult. An obstinate resistance was made. It was the object of the French to cut off the soldiery of the congregation from Edinburgh, and by these means to divide the strength of that station. The earl of Arran and lord James Stuart had occasion for all their address and courage. Though they were able, however, to effect their escape, their loss was considerable, and the victory was manifestly on the side of their adversaries. About this time William Maitland of Lethington, secretary to the queen-dowager, withdrew secretly from Leith, and joined himself to the confederated nobles. He had been disgusted with the jealousies of the French counsellors, and was exposed to danger from having embraced the doctrines of the reformed. His reception was cordial, and corresponded to the opinion entertained of his wisdom and experience. He was skilled in business, adorned with literature, and accustomed to reflection; but it was not known that he wanted integrity. The accession of this statesman to their party could not console the lords of the congregation for the unpromising aspect of their affairs. Those who affected prudence retired privately from a cause which they accounted desperate, and the timorous fled with precipitation. The distrust of the brethren was infectious; and excited the ridicule and scorn of the partisans of the queen-dowager. In this distress the associated nobles resolved to abandon the capital. A little after midnight they retired from Edinburgh; and so great was the panic that they marched to Stirling without any stop. John Knox, who had accompanied the congregation to Stirling, anxious to restore their unanimity and courage, addressed them from the pulpit. He represented their misfortunes as the consequences of their sins; and, entreating them to remember the goodness of their cause, assured them in the end of joy, honor, and victory. His popular eloquence, corresponding to all their warmest wishes, diffused satisfaction and cheerfulness. They passed from despair to hope. A council was held, in which the confederated nobles determined to solicit, by a formal embassy, the aid of queen Elizabeth. Maitland of Lethington and Robert Melvil were chosen to negotiate this important transaction; and they received the fullest instructions concerning the state and difficulties of the congregation, the tyrannical designs of the queen-dowager, and the danger which threatened England from the union of Scotland with France. The queen of England determined to assist the reformers; whose leaders now dispersed themselves, and went to different parts of the kingdom to exert their activity for the common cause. The queen-dowager, imagining that the lords were fled, conceived great hopes of being able to crush the reformed at once. Her sanguine hopes, however, were soon checked on hearing that queen Elizabeth was resolved to assist them. She now determined to crush her enemies before they could receive any assistance from England. Her French troops took the road to Stirling, and wasted in their march all the grounds which belonged to the favorites of the reformation. After renewing their depredations at Stirling they passed the bridge; and, proceeding along the side of the

river, exercised their cruelties in a district which had distinguished itself by an ardent zeal against popery. While the terror of their arms was thus diffusing itself, they resolved to seize the town and castle of St. Andrews, which they considered as an important military station, and as a convenient place of reception for the auxiliaries they expected from France. But lord James Stuart employed himself to interrupt their progress and retard their attempts; and, to keep the force of the Congregation entire, he hazarded no action of importance. A small advantage was obtained by the French at Petticur; and they took Kinghorn. Lord James Stuart, with 500 horse and 100 foot, entered Dysart. With this inconsiderable strength he proposed to act against an army of 4000 men. His admirable skill in military affairs and his heroic courage were eminently displayed. During twenty days he prevented the march of the French to St. Andrews, intercepting their provisions, harassing them with skirmishes, and intimidating them by the address and boldness of his stratagems. M. d'Oysel, enraged and ashamed to be disconcerted by a body of men so disproportioned to his army, exerted himself with vigor. Lord James Stuart was obliged to retire. Dysart and Wemys were given to the French troops to be pillaged; and, when d'Oysel was in full march to St. Andrews, he discovered a powerful fleet bearing up the Frith. It was concluded that the supplies expected from France were arrived. Guns were fired by his soldiers, and their joy was indulged in all its extravagance. But this fleet having taken the vessels which contained their provisions, and the ordnance with which they intended to improve the fortifications of the castle at St. Andrews, a period was put to their rejoicings. Certain news was brought that the fleet they observed was the navy of England, which had come to support the congregation. A consternation, heightened by the giddiness of their preceding transports, invaded them. M. d'Oysel perceived now the value and merit of the service which had been performed by lord James Stuart; and, thinking no more of St. Andrews and conquest, fled to Stirling, in his way to Leith, from which he dreaded to be intercepted:—he reached that important station after a march of three days. A formal treaty was now concluded between the lords of the Congregation and queen Elizabeth.

In the mean time the queen dowager was disappointed in her expectations from France. The violent administration of the house of Guise had involved that nation in troubles and distresses. Its credit was greatly sunk, and its treasury was near exhausted. Persecutions, and the spirit of reaction, produced commotions and conspiracies; and, amidst domestic and dangerous intrigues and struggles, Scotland failed to engage that particular distinction which had been promised to its affairs. It was not, however, neglected altogether. The count de Martigues had arrived at Leith with 1000 foot and a few horse. The marquis D'Elbeuf had embarked for it with another body of soldiers; but, after losing several ships in a furious tempest, was obliged to return to the haven from which he had sailed. In this sad reverse of fortune many forsook the queen-

dowager. It was now understood that the English army was upon its march to Scotland. The Scottish lords who had preserved a neutrality, meditated a union with the Protestants. The earl of Huntly gave a solemn assurance that he would join them. Proclamations were issued throughout the kingdom, calling upon the subjects of Scotland to assemble in arms at Linlithgow, to re-establish their ancient freedom, and to assist in the utter expulsion of the French soldiery. The English fleet, meanwhile, under Winter the vice-admiral, had taken and destroyed several ships, had landed some troops upon Inchkeith, and discomfited a body of French mercenaries. Upon these acts of hostility, the princes of Lorrain despatched the chevalier de Senre to queen Elizabeth, to make representations against this breach of the peace, and to urge the recall of her ships. This ambassador affected likewise to negotiate concerning the evacuation of Scotland by the French troops, and to propose methods by which the king of France might quarter the arms of England without prejudice to queen Elizabeth. But to prevent the execution of vigorous resolutions against the queen-dowager, and to gain time, were the only objects he had in view. With similar intentions Monluc, bishop of Valence, a man of greater address and ability, and equally devoted to the house of Guise, was also sent at this time to the court of England. Queen Elizabeth, however, and her ministers, were too wise to be amused by artifice and dexterity. Lord Grey entered Scotland with an army of 1200 horse and 6000 foot; and lord Scroop, Sir James Croft, Sir Henry Percy, and Sir Francis Lake commanded under him. By an inhuman policy, the queen-dowager had already wasted all the country around the capital. But the desolation she had made, while it was ruinous to the Scottish peasants, affected not the army of England. The leaders of the congregation had provided against this difficulty. The duke of Chatelherault, the earls of Argyll, Glencairn, and Monteith, the lord James Stuart, and the lords Ruthven, Boyd, and Ochiltree, with a numerous and formidable force, joined the English commander at Preston. Struck with the sad condition of her affairs, despairing of a timely and proper succor from France, and reminded by sickness of her mortality, the queen-dowager retired from Leith to the castle of Edinburgh, and put herself under the protection of lord Erskine. At the period when she was appointed to the regency lord Erskine had received from the three estates the charge of this important fortress, with the injunction to hold it till he should know their farther orders; and, giving way to the solicitations of neither faction, he had kept it with fidelity. By admitting the queen-dowager, he yielded to sentiments of honor and humanity, and yet did not depart from his duty. A few only of her domestics accompanied her, with the archbishop of St. Andrews, the bishop of Dunkeld, and the earl Marischal. The confederated nobles now assembled at Dalkeith to hold a council; and, conforming to those maxims of prudence and equity which, upon the eve of hostilities, had been formerly

exercised by them, they invited the queen-dowager to an amicable conclusion of the present troubles. In a letter which they wrote to her they called to her remembrance the frequent manifestoes and messages in which they had pressed her to dismiss the French soldiery, who had so long oppressed the lower ranks of the people, and who threatened to reduce the kingdom itself to servitude. The aversion, however, with which she had constantly received their suit and prayers was so great that they had given way to a strong necessity, and had intreated the assistance of the queen of England to expel these strangers by force of arms. But, though they had obtained the powerful protection of this princess, they were yet animated with a becoming respect for the mother of their sovereign; and, abhorring to stain the ground with Christian blood, were disposed once more to solicit the dismissal of these mercenaries, with their officers and captains: and, that no just objection might remain against the grant of this their last request, they assured her that a safe passage by land, to the ports of England, should be allowed to the French; or that, if they judged it more agreeable, the navy of queen Elizabeth should transport them to their own country. If these proposals should be rejected, they appealed and protested to God and to mankind, that no motive of malice, or hatred, or wickedness of any kind, had induced them to employ the fatal expedient of arms; but that they had been compelled to this distressful remedy, for the preservation of their commonwealth, religion, persons, estates, and posterity. They begged her to weigh the equity of their petitions, to consider the inconveniences of war, and to think on the rest and quiet which were necessary to relieve the afflictions of her daughter's kingdom; and they besought her to embalm her own memory, by an immortal deed of wisdom, humanity, and justice. To give authority and weight to the letter of the associated lords, lord Grey directed Sir George Howard and Sir James Croft to wait upon the queen-dowager, and to stipulate the peaceable departure of the English troops, upon the condition that the French mercenaries were immediately dismissed from her service, and prohibited from residing in Scotland. Returning no direct answer to the applications made to her, she desired time to deliberate upon the resolution which it became her to adopt. This equivocal behaviour corresponded with the spirit of intrigue which had uniformly distinguished the queen-dowager; and it is probable that her engagements with France did not permit her to be explicit. The combined armies marched towards Leith. A body of the French, posted upon a rising ground, called Hawk Hill, disputed their progress. During five hours the conflict was maintained with obstinate valor. At length the Scottish horsemen charged the French with a fury which they were unable to resist. They fled to Leith with precipitation; and might have been cut off from it altogether, if the English cavalry had exerted themselves: 300 French soldiers perished in this action, and a few only on the side of the congregation. Leith

was invested. The pavilions and tents of the English and Scottish nobility were planted at Restalrig, and around it. Trenches were cast; and, the ordnance from the town annoying the combined armies, a mount was raised, upon which eight cannons were erected. A continued fire from these, against St. Anthony's tower in South Leith, being kept up and managed with skill, the walls of this fabric were shaken, and the French found it necessary to dismount their artillery. Negligent from security, and apprehensive of no attack, the English and Scottish officers occupied themselves in amusements, and permitted a relaxation of military discipline. The French, informed of this levity, made a sally from Leith. While some of the captains were diverting themselves at Edinburgh, and the soldiery were engaged at dice and cards, they entered the trenches unobserved, and, pushing their advantage, put 600 men to the sword. After this slaughter, the Protestants were more attentive to their affairs. Mounts were built at proper distances, which, being fortified with ordnance, served as places of retreat and defence in the event of sudden incursions; and thus they continued the blockade in a more effectual manner. The army under the marquis D'Elbeuf, promised so often to the queen-regent, was in vain expected by her; but she received, at this time, supplies in money and military stores; and Monluc, bishop of Valence, though defeated in dexterity by Elizabeth and her ministers, had arrived in Scotland to try anew the arts of negotiation. Conferences were held by him with the queen-dowager, with the English commanders, and with the confederated nobles; but no agreement could be concluded. His credentials neither extended to the demolition of Leith, nor to the recall of the French mercenaries: and, though he obtained powers from his court to consent to the former of these measures, they were yet burdened with conditions which were disgraceful to the congregation; who, in the present prosperous state of their fortunes, were not disposed to give up any of the objects for which they had struggled so long, and to the attainment of which they now looked forward with a settled hope. Though the orations of Monluc could not overpower the stubborn sense of the congregation, yet as he affected to give them admonitions and warnings, and even ventured to insult them with menaces, they appear to have conceived a high indignation against him. Under this impulse, and that, in so advanced a stage of their affairs, they might exhibit the determined firmness of their resolutions, and bind to them by an indissoluble tie the earl of Huntly and the other persons who had joined them in consequence of the English alliance, they entered into a new league and covenant, more solemn, expressive, and resolute, than any which they had yet subscribed. The nobles, barons, and inferior persons, who were parties to this bond, bound themselves in the presence of Almighty God, as a society, and as individuals, to advance and set forward the reformation of religion, and to procure, by every possible means, the true preaching of the Gospel, with the proper administration of the sacraments and other ordinances. Deeply

affected, at the same time, with the misconduct of the French soldiers, who had been promoted to high offices; with the oppressions of the French mercenaries, whom the queen-dowager kept up and maintained under the color of authority; with the tyranny of their captains; and with the manifest danger of conquest to which the country was exposed, by different fortifications upon the sea-coast, and by other dangerous innovations; they promised and engaged, generally and individually, to join with the English army, and to concur in an honest, plain, and unreserved resolution to expel all foreigners from the realm, as oppressors of public liberty; that, by recovering the ancient rights, privileges, and freedom of their nation, they might live for the future under the due obedience of their king and queen, be ruled by the laws and customs of the country, and by officers and statesmen born and educated among them. It was likewise contracted and agreed by the subscribers to this bond and covenant that no private intelligence by writing or message, or communication of any kind, should be kept up with their adversaries. When the strong and fervid sentiments of this new association were communicated to the queen-dowager, she resigned herself to sorrow. Her mind, inclined to despondence by the increase of her malady, felt the more intensely the cruel distractions into which the kingdom had been driven by the ambition of France, her own doating affection for the princes of Lorraine, and the vain prognostications of flatterers. In the agony of passion she is said to have invoked the curse of God to alight upon all those who had counselled her to persecute the preachers, and to refuse the petitions of the most honorable portion of her subjects. In the mean time the siege of Leith was prosecuted. But, the strength of the garrison amounting to more than 4000 soldiers, the operations of the besiegers were languid. An accidental fire in the town, which destroyed many houses and a great part of the public granary, afforded them an opportunity of plying their artillery with some advantage; and a few days after they made a general assault. But the scaling-ladders which were applied to the walls being too short, and Sir James Croft, who had been gained to the queen-dowager, having acted a treacherous part, the attempt failed of success, and 1000 men were destroyed. The combined armies, however, did not lose their hopes. The English and Scots animated the constancy of one another; and in the ratification of the treaty of Berwick, which was now made, a new source of cordiality opened itself. Letters also had come from the duke of Norfolk, promising a powerful reinforcement, giving the expectation of his taking upon him the command of the troops in person, and ordering his pavilion to be erected in the camp. Leith began to feel the misery of famine, and the French to give themselves to despair. The besiegers abounded in resources; and the arrival of 2000 men, the expected reinforcement from England, gave them the most decisive superiority over their adversaries. Frequent sallies were made by the garrison, and they were always unsuccessful. Discouraged by defeats, depressed with the want of provisions, and languishing

Under the negligence of France, they were ready to submit to the mercy of the congregation. Amidst these distresses the queen-dowager, wasted with a lingering distemper and with grief, expired in the castle of Edinburgh. A few days before her death she invited to her the duke of Chatelherault, lord James Stuart, and the earls of Argyll, Glencairn, and Marischal, to bid them a last adieu. She expressed to them her sorrow for the troubles of Scotland, and made it her earnest suit that they would consult their constitutional liberties, by dismissing the French and English from their country; and that they would preserve a dutiful obedience to the queen their sovereign. She professed an unlimited forgiveness of all the injuries which had been done to her; and she entreated their pardon for the offences committed against them. In token of her kindness and charity she then embraced them by turns, while the tears started to her eyes. After this interview, the short remaining portion of her life was dedicated to religion; and she flattered the congregation by calling John Willocks, one of the most popular of their preachers, to assist and comfort her by his exhortations. He made long discourses to her about the abominations of the mass; but she appears to have died in the communion of the Roman church; and her body, being transported to France, was deposited in the monastery of St. Peter, at Rheims, in Champagne, where her sister Renée was abbess.

The death of the queen-dowager, at a period so critical, broke altogether the spirit of the French troops. They were blocked up so completely that it was almost impossible for any supplies to reach them either by sea or land; and France had delayed so long to fulfil its magnificent promises that it was no longer in a capacity to take any steps towards their accomplishment. Its internal distress and disquiets were multiplying. The nobility, impoverished by wars, were courting the rewards of service, and struggling in hostility: the clergy were avaricious, ignorant, and vindictive. The populace, knowing no trade but arms, offered their swords to the insurgents. Francis II. the husband of Mary, was without dignity or understanding. Catherine de Medicis his mother was full of artifice and falsehood: insurrections were dreaded in every province. The house of Guise was encompassed with difficulties and trembling with apprehensions, so that they could not think of persisting in their views of distant conquests. It was chiefly in the exemption from foreign wars that they could hope to support their own greatness, and apply a remedy to the domestic disturbances of France. It appeared to Francis and Mary that they could not treat in a direct method with the congregation, whom they affected to consider as rebellious subjects, without derogating from their dignity; in negotiating for a peace, therefore, they addressed themselves to queen Elizabeth. They granted a commission to John Monluc, bishop of Valence, Nicholas Pelleve bishop of Amiens, James de la Brosse, Henry Cleutin lord of Oysel, and Charles de la Rochefaucault lord of Randan; authorising them to enter into agreements with the queen of England. The

English commissioners were Sir William Cecil principal secretary of state, Nicholas Wotton dean of Canterbury and York, Sir Ralph Sadler, Sir Henry Percy, and Sir Peter Crew; and the powers of treaty were to be exercised by them all in conjunction, or by four, three, or two of them. The plenipotentiaries of France, though empowered only to treat with England, were yet, by a separate commission, entrusted also to assure the congregation that, notwithstanding the heinous guilt incurred by them, Francis and Mary were inclined to receive them into favor upon their repentance and return to obedience; and to abstain for ever from all enquiry into their conduct. They had full authority, at the same time, by this new deed, to hear, in conjunction with the commissioners of Elizabeth, their complaints, and to grant, with their consent, the relief which appeared most proper and salutary. The nobility and people of Scotland, choosing for their representatives lord James Stuart, lord Ruthven, and Maitland of Lethington, expressed their willingness to concur in reasonable measures for the re-establishment of the public union and tranquillity, while, by a formal petition, they enumerated their grievances, claimed a redress of them, and asked a uniform protection to their constitution and laws. To this petition the intercession of queen Elizabeth effected the friendly attention of Francis and Mary; and upon the foundation thus concerted Monluc and Randan, Cecil and Wotton, the acting plenipotentiaries of England and France, drew up and authenticated the celebrated Deed of Relief and Concession, which does so much honor to the spirit, perseverance, and magnanimity of the Scottish nation. By this agreement Francis and Mary consented that no French soldiers or foreign troops should ever be introduced into Scotland without the council and the advice of the three estates. They concurred in the opinion that the French mercenaries should be sent back into France, and that the fortifications of Leith should be demolished; they agreed that commissioners should be appointed to visit Dunbar, and to point out the works there which ought to be destroyed; and they bound themselves to build no new fortress or place of strength within the kingdom, and to repair no old one without parliamentary authority. They consented to extinguish all debts which had been contracted for the maintenance of the French and Scottish soldiery; appointed the estates of the realm to hold a parliament for the discussion of affairs of state; and obliged themselves to consider the acts of this assembly as valid and effectual. They confirmed the ancient law of the country, which prohibited the princes of Scotland from making peace or war without the advice of the three estates. It was agreed by them that the three estates, in concurrence with the queen, should elect a council for the administration of affairs during her majesty's absence. They became bound to employ the natives of Scotland in the management of justice both civil and criminal, in the offices of chancellor, keeper of the seals, treasurer, comptroller, and in other similar stations; and to abstain from the promotion of all foreigners to places of trust and honor, and from investing

any clergyman in the charge of affairs of the revenue. They further determined to publish an act of oblivion, and to bury for ever the memory of all the late transactions. They concluded that a general peace and reconciliation should take place among all parties. And they referred the reparation which might be proper to compensate the injuries that had been sustained by bishops and ecclesiastics to the judgment of the three estates. Upon the subject of reformation, the plenipotentiaries of England and France did not choose to deliberate and decide, although articles with regard to it had been presented to them by the nobles and people. They referred this delicate topic to the ensuing meeting of the parliament; and the leaders of the congregation engaged that deputies from the three estates should repair to the king and queen, to know their intention concerning matters of such high importance. After having granted these concessions to the nobility and people of Scotland upon the part of their respective courts, Moulic and Randan, Cecil and Wotton, concluded another deed of treaty and agreement. By this it was determined that the English and French troops should depart out of Scotland; that all warlike preparations should cease; that the fort of Eyemouth should be razed, in terms of the treaty of Cambray; that Francis and Mary should abstain from bearing the title and arms of England or Ireland; that it should be considered whether a further compensation should be made to Elizabeth for the injuries committed against her; and that the king and queen of Scots should be fully and sincerely reconciled to the nobility and the people of their kingdom. The interests of England and France were the particular objects of this agreement. But, though the concessions to the Protestants were not inserted in it at full length, an express reference was made to them; and they received a confirmation in terms which could not be misunderstood. This deed recorded the clemency of Francis and Mary to their subjects of Scotland, the extreme willingness of the nobility and people to return to their duty and allegiance, the representation they had offered of their grievance and the request of queen Elizabeth that redress should be afforded to them; and it appealed to the consequent concessions which had been stipulated to their advantage. By these important negotiations the Protestants, while they humbled France, flattered queen Elizabeth; and, while they acquired a power to act in the establishment of the reformation, restored its civil constitution to Scotland. The exclusion of foreigners from offices of state, the limitation of the Scottish princes with regard to peace and war, the advancement of the three estates to their ancient consequence, and the act of oblivion of all offences, were acquisitions most extensively great and useful; and, while they gave the fullest security to the reformed, gratified their most sanguine expectations.

The peace, so fortunately concluded, was immediately proclaimed. The French mercenaries embarked for their own country, and the English army took the road to Berwick. Amidst events so joyful, the preachers exhorted the confederated nobles to command the solemnity of a thanks-

giving. It was ordered accordingly; and, after its celebration, the commissioners of the boroughs, with several of the nobility, and the tenants in capite, were appointed to choose ministers to preach the gospel in the principal towns throughout the kingdom. John Knox was called to discharge the pastoral functions at Edinburgh, Christopher Goodman at St. Andrews, Adam Heriot at Aberdeen, John Row at Perth, Paul Methven at Jedburgh, William Christison at Dundee, David Ferguson at Dunfermline, and David Lindsay at Leith. That the business of the church might be managed with propriety, superintendants were elected to preside over the ecclesiastical affairs of provinces and districts. John Spottiswood was named the superintendent for Lothian, Willocks for Glasgow, John Winram for Fife, John Erskine of Dun for Angus and Mearns, and John Carsewell for Argyle and the Isles. This gave a beginning to the reformed church of Scotland. Amidst the triumph and exultation of the Protestants, the meeting of the parliament approached. All persons who had a title from law, or from ancient custom, to attend the great council of the nation, were called to assemble there: while there was a full convention of the greater barons and the prelates, the inferior tenants in capite, or the lesser barons, upon an occasion so great, instead of appearing by representation, came in crowds to give personally their assistance and votes; and all the commissioners for the boroughs, without exception, presented themselves. It was objected to this parliament, when it was assembled, that it could not be valid, since Francis and Mary were not present, and had not empowered any person to represent them. But, by the terms of the late concessions to the nobility and the people, they had in effect dispensed with this formality; and the objection, after having been agitated with heat for some days, was rejected. The lords of the articles were then chosen; and, as the Protestant party were superior to the popish faction, they were careful in electing the members of this committee to favor all those who were disposed to forward the reformation. The first object which the lords of the articles held out to the parliament was the supplication of the nobility, gentry, and all the other persons who professed the new doctrines. It required that the Romish church should be condemned and abolished. It reprobated transubstantiation, the merit of works, papistical indulgences, purgatory, pilgrimages, and prayers to departed saints; considering them as pestilent errors, and as fatal to salvation. It demanded that all those who should teach and maintain them should be exposed to correction and punishment. Also that a remedy should be applied against the profanation of the holy sacraments by the Roman Catholics; that the ancient discipline of the church should be restored; that the supremacy and authority of the pope should be abolished; and that the patrimony of the church should be employed in supporting the reformed ministry, in the provision of schools, and in the maintenance of the poor. This supplication of the Protestants was received in parliament with marks of the greatest respect. The popish doctrines it censured, and the strong

language it employed, excited no dispute. The nobility, however, and the lay members, did not think it expedient that the patrimony of the church, in all its extent, should be allotted to the reformed ministry, and the support of schools and the poor. Avoiding therefore any explicit scrutiny into this point, the parliament gave it in charge to the ministers and the leading men of the reformation, to draw up under distinct heads, the substance and sense of those doctrines which ought to be established over the kingdom. Within four days this important business was accomplished. The writing or instrument to which the reformed committed their opinions was termed 'The Confession of Faith, professed and believed by the Protestants within the realm of Scotland.' (See Knox's Collection of Confessions of Faith, vol. II., and Stat. Book Parl., 1567). It was read first to the lords of the articles. It was then read to the parliament; and the prelates of the Romish church were commanded, in the name of God, to make publicly their objections to the doctrines it proposed. They preserved a profound silence. A new diet was appointed for concluding the transaction. The articles of the Confession were again read over, and the votes of the parliament were called. Of the temporal nobility, three only refused to bestow upon it their authority. The earl of Athol, and the lords Somerville and Bothwell, protested that 'they would believe as their fathers had done before them.' The bishops and the estate ecclesiastical, from a consciousness of the weakness of popery, seemed to have lost all power of speech. No dissent, no vote, was given by them. 'It is long,' said the earl Marischal, 'since I entertained a jealousy of the Romish faith, and an affection to the reformed doctrines. But this day has afforded me the completest conviction of the falsehood of the one, and the truth of the other. The bishops, who do not conceive themselves to be deficient in learning, and whose zeal for the maintenance of the hierarchy cannot be doubted, have abandoned their religion, and their interest in it, as objects which admit of no defence or justification.' All the other constituent members of this great council were zealous for the establishment of the reformation, and affirmed the propriety of its doctrines. Thus the high court of parliament, with great deliberation and solemnity, examined, voted, and ratified the confession of the reformed faith.

A few days after the establishment of the Confession of Faith, the parliament passed an act against the mass and the exercise of the Romish worship. It ordained that all persons saying or hearing mass should, for the first offence, be exposed to the confiscation of their estates, and to a corporal chastisement, at the discretion of the magistrates; that for the second offence they should be banished out of the kingdom; and, for the third, they should incur and suffer the pains of death. This fierceness, it must be acknowledged, did not suit the generosity of victory; and, while an excuse is sought for it in the perfidiousness of the Romish priesthood, it escapes not the observation of the most superficial historians that these severities were exactly those of which the Protestants had complained so loudly, and with so much justice. By another

ordination the parliament, after having declared that the pope had inflicted a deep wound upon the sovereignty and government of Scotland, by his frequent interferences and claims of power, decreed that, for the future, his jurisdiction and authority should be dead and extinct; and that all persons maintaining the smallest connexion with him, or with his sect, should be liable to the loss of honor and offices, proscription, and banishment. These memorable and decisive statutes produced the overthrow of the Romish religion. To obtain to these proceedings the approbation of Francis and Mary was an object of the greatest anxiety, and of infinite moment to the three estates. Sir James Sandilands, lord St. John, was therefore appointed to go to France, and to express to the king and queen the affection and allegiance of their subjects, to explain what had been done in consequence of the late concessions and treaty, and to solicit their royal ratification of the transactions of the parliament. The spirited behaviour of the congregation had, however, exceeded all the expectations of the princes of Lorraine; and the business of the embassy, and the ambassador himself, though a man of character and probity, were treated not only with ridicule, but with insult. He returned accordingly without any answer to his commission. Instead of submitting the heads of a reformation to Francis and Mary, by a petition, the parliament had voted them into laws; and from this informality the validity of its proceedings has been suspected: but it is observable that the Protestants had not concealed their views with regard to religion and the abolition of Popery; that in the grant of redress and concession, and in the deed of treaty, no prohibition was made to bar the establishment of the reformation; that a general authority was given to the parliament to decide in affairs of state; and that Francis and Mary were solemnly bound to authenticate its transactions. Though a formality was wanting, the spirit of the treaties was yet respected and maintained. The nation, of consequence, imputed the conduct of Francis and Mary to political reasons suggested by the princes of Lorraine, and to the artifices of the Popish clergy; and as Elizabeth did not refuse, upon her part, the ratification of the agreements, but solicited and pressed the French court to adopt the same measure, a strength and force were thence communicated to this conclusion. When the three estates despatched Sir James Sandilands to France, they instructed the earls of Morton and Glencairn, with Maitland of Lethington, to repair to the court of England. By these ambassadors they presented to Elizabeth their respectful thanks for her late most important services; and, while they solicited the continuance of her favor and protection, entreated that, for the establishment of a perpetual peace and amity, she would be pleased to take in marriage the earl of Arran, the next heir after his father to the Scottish monarchy. The queen made new and fervent protestations of her regard, and promised her warmest aid when it should be necessary, in their just defence, upon any future occasion. She spoke in obliging terms of the earl of Arran; but, as she found in herself no present dis-

position to marriage, she desired that he might consult his happiness in another alliance. She expressed a favorable opinion of the Scottish nobility; and, as a demonstration of her esteem, she begged them to consider the unanimity of their order as a necessary guard against the ambition and the artifices of the enemies of their nation. The success of the congregation, though great and illustrious, was not yet completely decisive. The refusal of Francis and Mary to ratify their proceedings was a source of inquietude. The Popish party, though humbled, was not annihilated: under the royal protection it might soon be formidable. Political considerations might arise, not only to cool the amity of England, but even to provoke its resentment; and France, though it could now transport no army against Scotland, might soon be able to adopt that expedient. Severe calamities were still therefore to be dreaded. In the narrowness of their own resources they could find no permanent security against the rage of domestic faction, and the strenuous exertions of an extensive kingdom. While the anguish of melancholy apprehensions repressed the triumph of the congregation, the event which could operate most to their interests was announced to them. This event was the death of Francis II., without issue. The tie which knit Scotland to France was thus broken. A new scene of politics arose. Catherine de Medicis, the queen-mother, ruled Charles IX., and was the personal enemy of the queen of Scots. The power and the credit which Mary had lent to her uncles, and the frequent and humiliating disappointments which the queen-mother had suffered from her influence over Francis, were now repaid with a studied neglect. In the full perfection of her charms, with two crowns on her head, and looking towards a third, she felt herself to be without grandeur and without consequence. Leaving a court where she had experienced all the enjoyments of which humanity is susceptible, she retired to Rheims to indulge her sorrow.

In the humiliation of their queen, and in the change produced in the councils of France, the Protestants of Scotland found every possible encouragement to proceed with vigor in the full establishment of the reformed doctrines. After the dissolving of the parliament they turned their attention to the plan of policy which might suit best the religion for which they had contended. The three estates, amidst their other transactions, had granted a commission to Messrs. John Winram, John Spottiswood, John Willocks, John Douglas, John Row, and John Knox, to frame and model a scheme of ecclesiastical government. They were not long in composing the First Book of Discipline; in which they explained the uniformity and method which ought to be preserved concerning doctrine, the administration of the sacraments, the election and provision of ministers, and the policy of the church. A convention of the estates gave its sanction to the Presbyterian scheme; but, while the Book of Discipline sketched out a policy admired for its simplicity, yet it required that the patrimony and the rich possessions of the ancient church should be allotted to the new establishment.

The reformers, however, so successful in the doctrines and the policy they had proposed, were here very unfortunate. This convention of the estates did not pay a more respectful regard to this proposal than the celebrated parliament had done, which demolished the mass and the jurisdiction of the see of Rome. It was not till after long and painful struggles that the new establishment was able to procure to itself a becoming, or even necessary provision and support. The Romish clergy were strenuous to continue in their possessions, and to profit by them; and the nobles and the laity, having seized upon great part of the property of the church, were no less anxious to retain their acquisitions. The aversion entertained from bestowing riches upon the Presbyterian establishment, encouraged the ardor which prevailed for advancing all the other views and interests of the reformed. This end was also promoted by the insidious policy of Catherine de Medicis. She was willing to increase all the difficulties in the situation of the queen of Scots and her subjects. Upon this account she had engaged Charles IX. to despatch M. Noailles to the Scottish parliament, to urge it in strong terms to renew the ancient league between the two kingdoms, to dissolve the alliance with England, and to re-establish over Scotland the popish doctrines and the popish clergy. A new meeting of the estates was assembled, which treated these strange requisitions with the indignation they merited. M. Noailles was instructed to inform his sovereign that France having acted with cruelty and perfidiousness towards the Scots, by attacking their independency and liberties under the pretence of amity and marriage, did not deserve to know them any longer as an ally; that principles of justice, a love of probity, and a high sense of gratitude, did not permit the Scottish parliament to break the confederacy with England, which had generously protected their country against the tyrannical views of the French court, and the treacherous machinations of the house of Guise; and that they were never to acknowledge the popish clergy to be a distinct order of men, or the legal possessors of the patrimony of the church; since, having abolished the power of the pope, and renounced his doctrines, they could bestow no favor or countenance upon his vassals and servants. To this council of the estates a new supplication was presented by the Protestants. They departed from the high claim which they had made for the riches and patrimony of the popish church; and it was only requested by them that a reasonable or decent provision should be allotted to the true preachers of the gospel. This application, however, was treated with neglect; but, amidst the anxiety manifested by the nobles and the tenants of the crown to hold the Presbyterian clergy in subjection and in poverty, they discovered the warmest zeal for the extension and continuance of the reformed opinions. For, in this supplication of the Protestants, an ardent desire being urged that all the monuments of idolatry which remained should be utterly destroyed, the fullest and most unbounded approbation was given to it. An act accordingly was passed which com-

manded that every abbey-church, every cloister, and every memorial whatsoever of popery, should be finally overthrown and demolished; and the care of this popular employment was committed to those persons who were most remarkable for their keenness and ardor in the work of the reformation. Its execution in the western counties was given in charge to the earls of Arran, Argyle, and Glencairn; lord James Stuart attended to it in the more northern districts; and, in the inland divisions of the country, it was intrusted to the barons in whom the congregation had the greatest confidence. A dreadful devastation ensued. The populace, armed with authority, spread their ravages over the kingdom. The churches and religious houses were every where defaced or pulled to the ground; and their furniture, utensils, and decorations, became the property of the invaders. The libraries of the ecclesiastics, and the registers of their transactions and of civil affairs, were gathered into heaps and burnt. Religious antipathy, the sanction of law, the exhortation of the clergy, the hope of spoil, and the ardor to put the last hand to the reformation, concurred to drive the rage of the people to its wildest fury. The death of Francis II. having left his queen Mary in a very disagreeable situation in France, she now began to think of returning to her own country. To this she was solicited both by the Protestants and Papists; the former that they might gain her over to their party; and the latter, hoping that, as Mary was of their own persuasion, popery might be re-established in Scotland. For this deputation the Protestants chose lord James Stuart, and the Papists John Lesly, official and vicar-general of the diocese of Aberdeen. The latter got the start of the Protestant ambassador, and thus had the opportunity of first delivering his message. He advised her strongly to beware of lord James Stuart, whom he represented as a man of unbounded ambition, who had espoused the Protestant cause for no other reason than that he might advance himself to the highest employments in the state; nay, that he had already fixed his mind on the crown. For these reasons he advised that lord James should be confined in France till the government of Scotland could be completely established; but if the queen was averse to this measure, he compelled her to land in some of the northern districts of Scotland, where her friends were most numerous; in which case an army of 20,000 men would accompany her to Edinburgh, to restore the Popish religion, and to overawe her enemies. The next day lord James Stuart waited upon her, and gave an advice very different from that of Lesly. The surest method of preventing insurrections, he said, was the establishment of the Protestant religion; that a standing army and foreign troops would certainly lose the affections of her subjects; for which reason he advised her to visit Scotland without guards and without soldiers, and he became solemnly bound to secure their obedience to her. To this advice Mary, though she distrusted its author, listened with attention; and lord James took care to improve the favorable opportunity; by which means he obtained a promise of the

earldom of Marre. Before Mary set out from France she received an embassy from queen Elizabeth, pressing her to ratify the treaty of Edinburgh, in which she had taken care to get a clause inserted that Francis and Mary should for ever abstain from assuming the title and arms of England and Ireland. But this was declined by the queen of Scotland, who, in her conference with the English ambassadors, gave proof of her political abilities. Her refusal greatly augmented the jealousies which already prevailed between her and Elizabeth, insomuch that the latter refused her a safe passage through her dominions. This was considered by Mary as a high indignity; she returned a very spirited answer, informing her rival that she could return to her dominions without any assistance from her, or indeed whether she would or not. In August 1561 Mary set sail from Calais for Scotland. She left France with much regret; and at night ordered her couch to be brought upon deck, desiring the pilot to awaken her in the morning if the coast of France should be in view. The night proved calm, so that the queen had an opportunity once more of indulging herself with a sight of that beloved country; a favorable wind now sprung up, and, a thick fog coming on, she escaped a squadron of men of war which Elizabeth had sent out to intercept her: on the 20th of August she landed safely at Leith.

Though the Scots received their queen with the greatest demonstrations of joy, it was not long before an irreconcilable quarrel arose. The Protestant religion was now established all over the kingdom; and its possessors had so far deviated from their own principles, or what ought to have been their principles, that they would grant no toleration to the opposite party, nor even to the sovereign herself. In consequence of this, when the queen attempted to celebrate mass in her own chapel of Holyrood House, a violent mob assembled, and it was with the utmost difficulty that lord James Stuart and other persons of distinction could appease the tumult. Mary attempted to allay these ferments by a proclamation, in which she promised to take the advice of the states in religious matters; and, in the mean time, declared it to be death for any person to attempt an innovation or alteration of the religion now established in Scotland. Against this proclamation the earl of Arran protested, and told the herald that the queen's proclamation should not protect her attendants and servants if they presumed to commit idolatry and to say mass. John Knox declared from the pulpit that one mass was more terrible to him than if 10,000 armed enemies had landed in any part of the kingdom to re-establish popery. The preachers every where declaimed against idolatry and the mass; keeping up, by their mistaken zeal, a spirit of discontent and sedition throughout the whole kingdom. Knox was called before the queen to answer for the freedom of his speeches; but his unbounded boldness gave Mary much disquiet. The freedoms, however, which were taken with the queen, could not induce her to depart from the plan of government which she had laid down. To the Protestants she resolved to pay the greatest attention; from

among them she chose her privy council, and heaped favors upon lord James Stuart, who, for his activity in promoting the reformation, was the most popular man in the kingdom; while, to her courtiers of the Roman Catholic persuasion, she behaved with a distant formality. In the mean time the difference between the two rival queens became every day greater. The queen of Scotland pressed Elizabeth to declare her the nearest heir to the crown of England, and Elizabeth pressed Mary to confirm the treaty of Edinburgh. With this the latter could not comply, as it would in fact have been renouncing for ever the title to that crown for which she was so earnestly contending. Endless negotiations were the consequence, and the hatred of Elizabeth to Mary continually increased. This year the queen of Scotland amused herself by making a circuit through part of her dominions. From Edinburgh she proceeded to Stirling; thence to Perth, Dundee, and St. Andrews. Though received every where with the greatest acclamations and marks of affection, she could not but remark the rooted aversion which had universally taken place against popery; and, upon her return to Edinburgh, her attention was called to an exertion of this zeal, which may be considered as highly characteristic of the times. The magistrates of this city, after their election, enacted rules, according to custom, for the government of their borough. By one of these acts, which they published by proclamation, they commanded all monks, friars, and priests, together with all adulterers and fornicators, to depart from the town and its limits within twenty-four hours, under the pains of correction and punishment. Mary, interpreting this exertion of power to be a usurpation of the royal authority and a violation of order, displaced the magistrates, commanded the citizens to elect others in their room, and granted by proclamation a plenary indulgence to all her subjects not convicted of any crime, to repair to, and remain in, her capital at their pleasure. Besides these disturbances on account of religion, the kingdom was now in confusion on another account. The long continuance of civil wars had left a proneness to tumults and insurrections every where; and thefts, rapine, and licentiousness of every kind, threatened to subvert the foundations of civil society. Mary made considerable preparations for the suppression of these disorders, and appointed lord James Stuart her chief justiciary and lieutenant. He was to hold criminal courts at Jedburgh, and at Dumfries. To assist his operations against the banditti, who were armed, and often associated into bodies, a military force was necessary; but, as there were then neither standing army nor regular troops in the kingdom, the county of Edinburgh and ten others were commanded to have their strength in readiness to assist him. The feudal tenants, and the allodial or free proprietors of these districts, in complete armor, and with provisions for twenty days, were appointed to be subservient to the purposes of his commission, and to obey his orders in establishing the public tranquillity. In this expedition he was attended with his usual success. He destroyed many of the strong

holds of the banditti, hanged twenty of the most notorious offenders, and ordered fifty more to be carried to Edinburgh, to suffer the penalties of the law for their rebellious behaviour. He entered into terms with lord Grey and Sir John Foster, the wardens of the English borders, for the mutual benefit of the two nations; and he commanded the chiefs of the disorderly clans to submit to the queen. In the mean time the queen was in a very disagreeable situation, being suspected and disturbed by both parties. From the concessions she had made to the Protestants, the Papists supposed that she had a design of renouncing their religion altogether; while, on the other hand, the Protestants could scarcely allow themselves to believe that they owed any allegiance to an idolater. Disquiets of another kind also now took place. The duke of Chatelherault, having left the Catholics to join the opposite party, was neglected by his sovereign. Being afraid of danger he fortified the castle of Dumbarton, which he resolved to defend; and, in case of necessity, to put himself under the protection of the queen of England. The earl of Arran was a man of weak abilities, but of boundless ambition. The queen's beauty had made an impression on his heart, and his ambition made him fancy himself the fittest person in the kingdom for her husband. But his fanaticism, and the violence with which he had opposed the mass, disgusted her. He bore her dislike with an uneasiness that preyed upon his intellects and disordered them. The earl of Bothwell was distinguished chiefly by his prodigalities and the licentiousness of his manners. The earl of Marischal had every thing that was honorable in his intentions, but was over wary. The earl of Morton possessed penetration and ability, but was attached to no party from any principles of rectitude; his own interests were the motives which governed him. The earl of Huntly, the lord chancellor, was unquiet, variable, and vindictive. The earls of Glencairn and Monteith were exceedingly zealous for the new opinions; and this, as well as their poverty, recommended them to queen Elizabeth. Among courtiers of this description it was difficult for Mary to make a selection of ministers in whom to confide. The popularity of lord James Stuart, and of Maitland of Lethington, had early pointed them out to this distinction; and hitherto they had acted to her satisfaction. They were each of eminent capacity; but the former was suspected of aiming at the sovereignty; the latter was prone to duplicity; and both were more connected with Elizabeth than became them as the ministers and subjects of another sovereign. Beside the policy of employing and trusting statesmen who were Protestants, and the precaution of maintaining a firm peace with England, Mary had it also at heart to enrich the crown with the revenues of the ancient church. A convention of estates was assembled to deliberate upon this measure. The bishops were alarmed with their perilous situation. They were told that the charge of the queen's household required an augmentation; and that, as the rents of the church had flowed chiefly from the crown, it was expedient that a proportion of

them should now be resumed to uphold its splendor. After long consultations, the prelates and estate ecclesiastical, considering that they existed merely by the favor of the queen, consented to resign to her the third part of their benefices; with the reservation that they should be secured during their lives against all farther payments, and relieved from the burden of the maintenance of the reformed clergy. With this offer the queen and the convention of estates were satisfied. Rentals, accordingly, of all their benefices throughout the kingdom, were ordered to be produced by the ancient ecclesiastics; the reformed ministers, superintendants, elders, and deacons, were enjoined to make out registers of the grants necessary to support their establishment; and a power of judging in these matters was committed to the queen and the privy council. While the prelates and estate ecclesiastical submitted to this offer from the necessity of their affairs, it was by no means acceptable to the reformed clergy, who at this time were holding an assembly. It was their wish to effect the entire destruction of the ancient establishment, to succeed to a large proportion of their emoluments, and to be altogether independent of the crown. But the nobles and gentlemen who had promoted the reformation thought very differently. To give too much of the wealth of the church to the reformed clergy was to invest them with a dangerous power. To give too great a proportion of it to the crown was a step still more dangerous. At the same it was equitable that the ancient clergy should be maintained during their lives; and it consisted with the private interests of the noblemen and gentlemen who had figured during the reformation, not to give consent to any scheme that would deprive them of the spoils of which they had already possessed themselves out of the ruins of the church. Thus public as well as private considerations contributed to separate and divide the lay protestants and the preachers. The general assembly, therefore, was not successful in the views which had called them together, and which they submitted to the convention of the estates. Doubts were entertained whether the church had any title to assemble itself. The petition for the complete abolition of idolatry, or for the utter prohibition of the mass, was rejected. The request that Mary would give authority to the book of discipline was not only refused, but even treated with ridicule. The only point pressed by the church, which attracted any notice, was its requisition of a provision or a maintenance; but the measure invented for this end was in opposition to all its warmest desires.

This measure, however, so unpromising to the preachers in expectation, was found to be still more unsatisfactory upon trial. The wealth of the Romish church had been immense, but great invasions had been made upon it. The fears of the ecclesiastics, upon the overthrow of popery, induced them to engage in fraudulent transactions with their relations; in consequence of which many possessions were conveyed from the church into private hands. Long leases of churchlands, or in perpetuity, were granted to strangers.

Sales also of ecclesiastical property, to a great extent, had been made by the incumbents; and a validity was supposed to be given to these transactions by confirmations from the pope. Even the crown had contributed to make improper dispositions of the ecclesiastical land revenues. Laymen had been presented to bishoprics and church-livings, with the power of disposing of the territory in connexion with them. In this diffusion of the property of the church much extensive domain came to be invested in the nobles and the gentry. From these causes, the grant of the third of their benefices, made by the ancient ecclesiastics to the queen, with the burden of maintaining the reformed clergy, was not nearly so considerable as might have been expected. But, the direction of the scheme being lodged in the queen and the privy-council, the advantage to the crown was still greater than that bestowed upon the preachers. Yet the carrying the project into execution was not without its inconveniences. There were still many opportunities for artifice and corruption. The ecclesiastics often produced false rentals of their benefices; and the collectors for the crown were not always faithful to their trust. The complete produce of the thirds did not amount to a great sum; and it was to operate to the expenses of the queen, as well as to the support of the preachers. A scanty proportion went to the latter; and yet the persons chosen to fix their particular stipends were the fast friends of the reformation; for this business was committed to the earls of Argyle and Morton, lord James Stuart, and Maitland of Lethington, with James Mackgill the clerk register, and Sir John Ballenden the justice-clerk: 100 Scottish merks were deemed sufficient for a common minister. To clergymen of greater interest, or who exercised their functions in more extensive parishes, 300 merks were allotted; and, excepting to superintendants, this sum was seldom exceeded. To the earl of Argyle, lord James Stuart, and lord Erskine, who had large ecclesiastical revenues, their thirds were usually remitted by the queen; and, upon the establishment of this fund or revenue, she also granted many pensions to persons about her court and of her household. The complaints of the preachers were made with little decency. To a mean spirit of flattery to the reigning power they imputed the defection of their friends; and against the queen they were animated with the bitterest animosity. The poverty in which they were suffered to remain inflamed all their passions, and inveterate habits of insult fortified them into a contempt of authority. To the queen, whose temper was warm, the rudeness of the preachers was an endless inquietude, which, while it fostered her religious prejudices, had the good effect to confirm her constancy to her friends. Lord James Stuart, who was entitled to her respect and esteem from his abilities, and his proximity to her in blood, had merited rewards and honors by his public services and the vigor of his counsels. After his successful discharge of her commission, as chief justiciary and lord lieutenant, she could not think of allowing him to descend from these offices without bestowing upon him a solid and

permanent mark of her favor. She advanced him into the rank of her nobility, by conferring upon him the earldom of Mar; and contributed to augment his consequence by facilitating his marriage with Agnes the daughter of the earl of Marischal; and the ceremonial of this alliance was celebrated with a magnificence and ostentation so extravagant in that age as to excite the fears of the preachers lest some avenging judgment should afflict the land. They exclaimed with virulence against his riotous feasting and banquets; and especially against his masquerades. In fact the abilities of the earl of Mar, the ascendancy he maintained in the councils of his sovereign, and the distinctions which he had acquired, exposed him to envy. The most formidable and desperate of his enemies was the earl of Huntly. In their rivalry for power, many causes of disgust had arisen. The one was at the head of the Protestants, the other of the papists. Upon the death of Francis II., Huntly and the popish faction had sent a deputation to Mary, inviting her to return to Scotland, and offering to support her with an army of 20,000 men. His offer was treated with civility, but rejected. The invitation of the Protestants, presented by the earl of Mar, was more acceptable to her. Huntly had advised her to detain his rival in confinement in France till the Roman Catholic religion should be re-established in Scotland. This advice she not only disregarded, but treated his enemy with particular civilities. Upon her arrival in Scotland, Huntly renewed his advances, offering to her to set up the mass in all the northern counties. He even conversed upon this subject with her uncles and her French courtiers. Still no attention was paid to him. He came to her palace, and was received only with respect. He was lord high chancellor without influence, and a privy counsellor without trust. The earl of Mar had her confidence, and was drawing to him the authority of government. These were cruel mortifications to a man of high rank, inordinate ambition, immense wealth, and who commanded numerous and warlike retainers. But he was yet to feel a stroke still more severely excruciating, and far more destructive of his consequence. The opulent estate of Mar, which Mary had erected into an earldom, and conferred upon his rival, had been lodged in his family for some time. He considered it as his property, and that it was never to be torn from his house. This blow at once insulted most sensibly his pride, and cut most fatally the sinews of his greatness. After employing against the earl of Mar those arts of detraction and calumny which are so common in courts, he drew up a formal memorial, in which he accused him of aiming at the sovereignty of Scotland. This paper he presented to the queen; but, the arguments with which he supported his charge being weak, she was the more confirmed in her attachment to her minister. Huntly then addressing himself to the earl of Bothwell, a man disposed to desperate enterprises, engaged him to attempt to involve the earl of Mar and the house of Hamilton in open and violent contention. Bothwell represented to Mar the enmity which had long subsisted between him and the house of

Hamilton. It was an obstacle to his greatness; and while its destruction might raise him to the highest pinnacle of power, it would be most acceptable to the queen. He concluded with making an unlimited offer of his services in the execution of this flagitious enterprise. The earl of Mar, however, abhorring the baseness of the project, rejected his advances. Bothwell, thus disappointed, next practised with the house of Hamilton to assassinate the earl, whom they considered as their greatest enemy. The business, he said, might be performed with ease. The queen was accustomed to hunt in the park of Falkland; and there Mar, slenderly attended, might be put to death; the person of the queen might be seized; and, by detaining her in custody, a sanction might be given to their crime. The integrity of the earl of Arran, revolting against this conspiracy, defeated its purposes. Dreading the perpetration of so cruel an action, and yet sensible of the resolute determination of his friends, he wrote privately to the earl informing him of his danger. But the answer of Mar to this letter, thanking him for his intelligence, being intercepted by the conspirators, Arran was confined by them under a guard in Kinneil House. He escaped, however, and discovered the plot to the queen. But, as he could produce no witnesses or written vouchers, he offered to prove his information, by engaging Bothwell in single combat. And though, in his examinations before the privy council, his love to the queen, his attachment to the earl of Mar, the atrocity of the scheme he revealed, and, above all his concern for his father, the duke of Chatelherault, threw him into a perturbation of mind which expressed itself violently in his speech, his countenance, and his actions; yet his declarations were so consistent and firm, that it was thought advisable to take the command of the castle of Dumbarton from the duke of Chatelherault, to confine the other conspirators to different prisons, and to await the farther discoveries which might be made by accident and time. The earl of Huntly, inflamed by these disappointments, invented other devices. He excited a tumult while the queen and the earl of Mar were at St. Andrews with only a few attendants; imagining that the latter would sally forth to quell the insurgents, and that a convenient opportunity would thus be afforded for putting him to the sword without detection. The caution of Mar, however, defeating the purpose, he ordered some of his retainers to attack him in the evening when he should leave the queen; but, these assassins being surprised in their station, Huntly affected to excuse their being in arms in a suspicious place and at a late hour by frivolous apologies. About this period two letters were received by Mary from the pope and the cardinal of Lorraine, in consequence of the intrigues of the earl of Huntly and the Roman Catholic faction. They pressed her to consider that, while this nobleman was the most powerful of her subjects, he was the most zealous in the interests of the church of Rome. They intreated her to marry Sir John Gordon his second son; promised her money and military supplies, if she would set herself to restore the

ancient religion of her country; and recommended it to her to destroy the more zealous Protestants about her court, of whom a roll was transmitted to her, which included the name of her minister the earl of Mar. These letters could not have reached her at a juncture more unfavorable for their success. Mar, to whom she communicated them, was encouraged to proceed with the greatest vigor in undermining the designs of his enemies. New incidents exasperated the animosities of his enemies. Sir John Gordon and lord Ogilvie, having a private dispute, happened to meet each other in the High Street of Edinburgh. They immediately drew swords; and, lord Ogilvie receiving a very dangerous wound, Sir John Gordon was committed to prison by the magistrates. The queen, at this time in Stirling, was informed by them of the riot; and, while they expressed a fear lest the friends of the prisoner should rise up in arms to give him his liberty, they mentioned a suspicion which prevailed that the partisans of lord Ogilvie were to assemble themselves to vindicate his quarrel. The queen, after commending their diligence, desired them to watch over their prisoner; wished that the law should take its course; and advised them to rely upon the earl of Mar for their protection. Sir John Gordon, however, escaped from his confinement; and, flying into Aberdeenshire, filled his retainers with his complaints, and added to the disquiet of his father the earl of Huntly. The queen, upon returning to Edinburgh, held a consultation with her privy council; and soon after set out upon a progress to the northern parts of her kingdom. At Aberdeen she was met by lady Huntly, a woman of deep dissimulation and of refined address, who endeavoured to conciliate her affections, was prodigal of flattery, expressed her zeal for the popish religion, and hinted the great power of her husband. She then interceded with the queen for forgiveness to her son. But Mary having told her that this favor could not possibly be granted till her son should return to prison, and submit to the justice of his country, lady Huntly engaged that he should do so, and only intreated that, instead of Edinburgh, he should be confined in the castle of Stirling. This request was complied with; and in the prosecution of the business, a court of judiciary being called, Sir John Gordon made his appearance, and acknowledged himself to be the queen's prisoner. Lord Glamis was appointed to conduct him to the castle of Stirling. But, upon the road to this fortress, he deceived his guards, hastened back, and gathering 1000 horsemen among his retainers, entrusted his security to the sword. In the mean time the queen continued her progress. The earl of Huntly joined himself to her train. His anxiety to be allowed to attend her to his house of Strathbogy was uncommon. The intelligence arrived of the escape and rebellion of Sir John Gordon. The behaviour of the father and the son awakened in her the most alarming suspicions. Assembling her privy council, she, with their advice, commanded her heralds to charge Sir John Gordon and his adherents to return to their allegiance and to surrender up to her their houses of strength and castles, under the pains of high treason and

forfeiture. Disdaining now to go to the house of the earl of Huntly, where that nobleman had made preparations to hold her in captivity, she advanced to Inverness by a different rout. In the castle of Inverness she proposed to take up her residence; but Alexander Gordon, the deputy governor, a dependent of the family of Huntly, refused to admit her. Her attendants were few in number, the town was without walls, and the inhabitants were suspected. In this extremity, some ships in the river were kept in readiness as a last refuge; and she issued a proclamation commanding all her loyal subjects in those parts to repair to her for her protection. The Frasers and Monros came in crowds to assist her. The Clan Chattan, though called to arms by the earl of Huntly, forsook his standard for that of their sovereign, when they discovered that his intentions were hostile to her. She employed them in laying siege to the castle, which surrendered upon the first assault. The lives of the soldiers were spared, but the deputy governor was executed, and the queen returned to Aberdeen. To punish the earl of Huntly for the troubles he had raised, a measure infinitely humiliating was executed. The earl of Mar resigned the rich estate of that name to lord Erskine, who claimed it as his right; and received in recompense, after its erection into an earldom, the territory of Murray, which made an extensive portion of the possessions of the earl of Huntly. Lady Huntly hastened to Aberdeen to offer the most humble submissions on the part of her husband, to avert the downfall of his greatness. But all access to the queen was refused; and the earl of Huntly was summoned to appear in person before the privy council, to answer for his conduct, and to make a full resignation of all his fortresses. He did not present himself, and was declared to be in open rebellion. A new proclamation was issued by the queen to collect sufficient numbers to subdue the insurgents. The command of her troops was given to the earl of Murray, who put them instantly into motion. Huntly advancing towards Aberdeen to give them battle, was informed of their approach. He halted at Corriche, hoping for a decisive victory. The army of the queen was the most numerous; but there were several companies in it, in whom little confidence could be placed. These the earl of Murray posted in the front of the battle, to begin the attack. They recoiled upon him, as he expected; but a resolute band, holding out their spears, obliged them to face the foe. Their flight made Huntly think the day was his own. He therefore ordered his soldiers to rush upon the enemy sword in hand. But, when they came to the place where the earl of Murray had stationed himself, his firm battalion put a stop to their progress. In a panic they took to flight. The earl of Huntly was killed in the pursuit. His sons, Sir John Gordon and Adam Gordon, were made prisoners, with the principal gentlemen who had assisted him. Mary, upon receiving the tidings of this success, discovered neither joy nor sorrow. But the earl of Murray and his party were not yet satisfied. Sir John Gordon was brought to trial, confessed his guilt, and was condemned to suffer as a traitor. Adam,

upon account of his tender age, was pardoned; and fines were levied from the other captives, according to their wealth. The lord Gordon, after the battle, fled to his father-in-law, the duke of Chatelherault, but was delivered up by that nobleman. He was convicted of treason, and condemned; but the queen was satisfied with confining him in prison. The body of the earl of Huntly was carried to Edinburgh, and kept unburied, till a charge of high treason was brought against him before the three estates. A display was made of his crimes, and parliament pronounced his guilt. His estates were forfeited; his dignity, name, and memory, were pronounced extinct; his ensigns armorial were torn from the book of arms; and his posterity were rendered unable to enjoy any offices, honor, or rank, within the realm.

While these scenes were transacting, Mary, who was solicitous to establish a secure amity between the two kingdoms, opened a negotiation to procure an interview with Elizabeth. Secretary Maitland, whom she employed, met with a most gracious reception at the court of London. The city of York was appointed as the place where the two queens should express their mutual love and affection, and bind themselves to each other in an indissoluble union; the day of their meeting was fixed; the fashion and articles of their interview were adjusted; and a safe conduct into England was granted to the queen of Scots by Elizabeth. But in this advanced state of the treaty it was unexpectedly interrupted. The disturbances in France, the persecution of the Protestants there, and the dangers which threatened the reformed countries, required Elizabeth to be upon her guard against the machinations of the adversaries of her religion. Upon these pretences she declined for a season the projected interview; sending to Mary, with this apology, Sir Henry Sidney, a minister of ability, whom she instructed to dive into the secret views of the Scottish queen. This was a severe disappointment to Mary; but Elizabeth acted in this negotiation without sincerity. It was not her interest to admit into her kingdom a queen who had pretensions to her crown, who might raise the expectations of her Roman Catholic subjects, and advance herself in their esteem; and who far surpassed her in beauty and the bewitching allurements of conversation and behaviour. Amidst affairs of great moment, a matter of smaller consequence, but interesting in its circumstances, deserves to be recorded. Chatelard, a gentleman of family in Dauphny, and a relation of the chevalier de Bayard, had been introduced to queen Mary by lord Damville, the heir of the house of Montmorency. Polished manners, vivacity, attention to please, the talent of making verses, and an agreeable figure, were his recommendations. He became necessary in all parties of pleasure at the palace. His assiduities attracted the notice of the queen, and, at times, she did him the honor to dance with him. But her politeness and condescension insinuated into him other sentiments than gratitude. He felt the power of her charms. In an unhappy moment he entered her apartment, and concealed himself under her bed. While the queen was undressing her maids discovered him and gave her the alarm.

Chatelard was dismissed with disgrace, but soon after pardoned. The frenzy, however, of his love compelling him to repeat his crime, it was no longer proper to show him any compassion. The delicate situation of Mary, the noise of these adventures, and the rude suspicions of her subjects, required that he should be tried and punished. He was accordingly condemned to lose his head; and the sentence was executed. The disagreeable circumstances in which Mary found herself involved by her quarrel with Elizabeth, the excessive bigotry and overbearing spirit of her Protestant subjects, together with the adventure of Chatelard, and the calumnies propagated in consequence of it, determined her to think of a second marriage. Her beauty and expectations of the crown of England, with what she already possessed, brought her many suitors. She was addressed by the king of Sweden, the king of Navarre, the prince of Condé, the duke of Ferrara, prince Charles of Spain, the archduke Charles of Austria, and the duke of Anjou. Her own inclination was to give the preference, among these illustrious lovers, to the prince of Spain; but her determination was to render her decision as agreeable as possible to queen Elizabeth, the English nation, and the Protestants in both kingdoms. Her succession to the crown of England was the object nearest her heart; and Elizabeth, who wished to prevent her from marrying altogether, contrived to impress upon her mind an opinion that any foreign alliance would greatly obstruct that much desired event. She therefore pitched upon two of her own subjects, whom she successfully recommended as fit matches for the queen of Scots; and she promised that, upon her acceptance of either of them, her right of inheritance should be enquired into and declared. Lord Robert Dudley, afterwards earl of Leicester, was the first person proposed; but, except a manly face and fine figure, he had not one quality that could recommend him to the Scottish princess. Mary received this suitor with composure, but was more induced to treat him with scorn than love. The English queen then recommended to Mary another suitor, lord Darnley, of the house of Stuart, whose birth was almost equal to her own, and whom the Scottish princess was induced to accept as a husband by motives which we have elsewhere detailed. See MARY. Elizabeth, however, was not more sincere in this proposal than in the former; for, after permitting Darnley, and his father, the earl of Lennox, to visit Scotland, to divert the attention of the queen from the continent, she threw every possible obstacle in the way of the marriage. When Mary was so entangled that she could not draw back, Elizabeth intimated her disapprobation of that marriage, which she herself had originally planned and forwarded; and her whole council declared against it. John Knox, in the mean time, forgetting not only the meek and peaceable behaviour of a Christian, but the allegiance of a subject, interfered with the marriage of his sovereign. Yet the principle upon which he acted now forms an essential part of the British constitution, which expressly prohibits the king or any of the royal family from marrying a Roman Ca-

tholic. As Darnley was a Papist he was of consequence execrated by the whole body of Protestants, laity as well as clergy; while, on the other hand, he was supported by the earls of Athol and Caithness, the lords Ruthven and Hume, and the whole Popish faction. It was exceedingly unfortunate for the queen, that neither lord Darnley himself, nor his father, the earl of Lennox, had any talents for business; and, as they naturally had the direction of the queen's affairs, it is no wonder that they were very ill managed. But a source of opposition, more violent than any imperfections of their own, arose to them in the attachment which they discovered to a person upon whom the queen had of late bestowed repeated favors. David Rizzio, from a mean origin, raised himself to distinguished notice in Mary's court. He was born at Turin, where his father earned a subsistence as a musician. Varieties of situation and adventure, poverty and misfortunes, had taught him experience. In the train of the count de Morette, the ambassador from the duke of Savoy, he had arrived in Scotland. The queen, desirous to complete her band of music, admitted him into her service. In this humble station he had the dexterity to attract her attention; and her French secretary falling into disgrace, from negligence and incapacity, he was promoted to his office. A necessary and frequent admission to her company afforded him now the fullest opportunity to recommend himself to her; and, while she approved his manners, she was sensible of his fidelity and his talents. His mind, however, was not sufficiently vigorous to bear prosperity. Ambition grew upon him with preferment. He interfered in affairs of moment, intruded himself into the conventions of the nobles at the palace, and was a candidate for greatness. The queen consulted with him upon the most important business, and entrusted him with real power. His suppleness and servility, in his former condition, were exchanged for insolence, ostentation, and pride. He exceeded the most potent barons in the stateliness of his demeanor, the sumptuousness of his apparel, and the splendor of his retinue. The nobles, while they despised his low birth, and detested him as a foreigner, were mortified with his grandeur, and insulted by his arrogance. Their anger and abhorrence were driven into fury; and, while this undeserving minion, to uphold his power, courted Darnley, and with officious assiduities advanced his suit with the queen, he hastened not only his own ruin, but laid the foundation of public calamity. To the earl of Murray the exaltation of Rizzio, so offensive in general to the nation, was peculiarly humiliating. His interference for the earl of Leicester, the partiality he entertained for Elizabeth, his connexions with secretary Cecil, and the favor he had shown to Knox, had all contributed to create in Mary a suspicion of his integrity. The practices of Darnley and Rizzio were thence the more effectual; and the fullest weight of their influence was employed to undermine his power. Mary, aware of their critical situation, was solicitous to add to her strength. Bothwel, who had been imprisoned for conspiring against the life of the earl of Murray, and

who had escaped from confinement, was recalled from France; the earl of Sutherland, an exile in Flanders, was invited home to receive his pardon; and George Gordon, the son of the earl of Huntly, was admitted to favor, and was soon reinstated in the wealth and honors of his family. As soon as Bothwel arrived, the earl of Murray insisted that he should be brought to trial for having plotted against his life. This was agreed to; and on the day of trial Murray made his appearance with 800 of his adherents. Bothwel did not choose to contend with such a formidable enemy; he therefore fled to France, and left a protestation that fear of violence was the cause of his flight. The queen commanded the judge not to pronounce sentence. Murray complained of her partiality, and engaged still deeper in cabals with queen Elizabeth. Darnley, in the mean time, pressed his suit with eagerness. The queen endeavoured to cause Murray to subscribe a paper expressing his consent to her marriage; but to no purpose. However, many of the nobility did subscribe this paper; and she ventured to summon a convention of the estates at Stirling, to whom she opened the business of the marriage; and who approved of her choice, provided the Protestant religion should continue to be the establishment. In the mean time ambassadors arrived from England, with a message importing Elizabeth's entire disapprobation of the queen's marriage with lord Darnley. But to these ambassadors Mary only replied that matters were gone too far to be recalled; and that Elizabeth had no cause of displeasure, since, by her advice, she had fixed her affections not upon a foreigner, but upon an Englishman; and since the man she favored could boast of having in his veins the royal blood of both kingdoms. She then created lord Darnley a lord and a knight. He was made a baron and a banneret, and styled lord Armanagh. He was belted earl of Ross. He then promoted fourteen gentlemen to the honor of knighthood, and did homage to the queen, without any reservation of duty to the crown of England, where his family had long resided. But his advancement to the dukedom of Albany was delayed; and this was so much resented by him that he threatened to stab lord Ruthven when he told him of it. In the mean time the meeting of parliament, which was to determine the marriage, was approaching. The earl of Murray, encouraged by the apparent firmness of Elizabeth, and alarmed with the approbation bestowed by the convention on the queen's choice, began to meditate a decisive blow. To inspirit the resentments of his friends, and to justify the violence of his projects, he hinted apprehensions of being assassinated by lord Darnley, and he avoided to go to Perth, where he affirmed that the plot against him was to be carried into execution. He courted the enemies of Darnley, and he united to him in a confederacy the duke of Chatelherault, and the earls of Argyle, Ruthven, and Glencairn. It was not the sole object of their association to oppose the marriage. They meditated the death of the earl of Lennox and lord Darnley; and, while the queen was upon the road to Callander to visit lord Livingston, they proposed to intercept her and to hold her in cap-

tivity. In this event, Murray was to advance himself into the government of the kingdom, under the character of its regent. But, Mary having heard of his conspiracy, the earl of Athol and lord Ruthven raised suddenly 300 men to protect her in her journey. Defeated in this scheme, the earl of Murray and his associates did not relinquish their cabals; and the nation was filled with alarms and suspicions. Amidst other arts employed by the malcontents, they insisted upon the danger which threatened the Protestant religion from the advancement of lord Darnley, and from the rupture that must ensue with England. Letters were dispersed among the Protestants, reminding them of what God had wrought for them in the abolition of idolatry, and admonishing them to oppose the restoration of the mass. A supplication was presented to the queen, complaining of idolaters, and insisting upon their punishment. It was received with unusual respect; and Mary instructed the popish ecclesiastics to abstain from giving offence of any kind to the Protestants. A priest, however, having celebrated mass, was taken by them, and exposed to the insults of the populace at the market place of Edinburgh, in the garments of his profession, and with the chalice in his hand; and, the queen having given a check to this tumultuous proceeding, the Protestants were confirmed in their belief that she meant to overthrow their religion. The most learned and able of the clergy held frequent consultations together; and the general assembly was called to deliberate upon the affairs of the church. The commissioners, whom they sent to the queen, were ordered to demand a parliamentary ratification of their desires. They insisted that the mass, with every remain of popery, should be suppressed throughout the kingdom; that, in this reformation, the queen's person and household should be included; that all papists and idolaters should be punished upon conviction according to the laws; that all persons should resort to the churches upon Sunday, to join in public worship; that an independent provision should be assigned for the support of the clergy, and their successors; that all vacant benefices should be conferred upon persons qualified for the ministry; that no bishopric, abbey, priory, deanery, or other living, having many churches, should be bestowed upon a single person; but that each church should be provided with a minister; that the glebes and manses should be allotted for the ministers, and for the reparation of churches; that all lands, which of old had been devoted to hospitality, should again be made subservient to it; that the lands and rents which formerly belonged to the monks, with the annuities, &c., should be employed in the maintenance of the poor and the upholding of schools; that all horrible crimes should be punished; that judges should be appointed in every district; and that, for the ease of the laboring husbandmen, some order should be devised concerning a reasonable payment of the tithes. To these requisitions the queen made an answer full of moderation and humanity. She was ready to agree with the three estates in establishing the reformed religion over the subjects of Scotland;

and she was steadily resolved not to throw into hazard the life, the peace, or the fortune, of any person whatsoever upon account of his opinions. As to herself and her household, she was persuaded that her people would not urge her to adopt tenets in contradiction to her own conscience, and thereby involve her in remorse. She had been nourished and brought up in the Romish faith; she conceived it to be founded on the word of God; and she was desirous to continue in it. But, setting aside her belief and religious duty, she ventured to assure them that she was convinced, from political reasons, that it was her interest to maintain herself firm in the Roman Catholic persuasion. By departing from it she would forfeit the amity of the king of France, and that of other princes who were now strongly attached to her; and their disaffection could not be repaired or compensated by any new alliance. To her subjects she left the fullest liberty of conscience; and they could not surely refuse to their sovereign the same right and indulgence. With regard to the patronage of benefices, it was a prerogative and property which it would ill become her to violate. Her necessities, and the charge of her royal dignity, required her to retain in her hands the patrimony of the crown. After the purposes, however, of her station, and the exigencies of government, were satisfied, she could not object to a special assignment of revenue for the maintenance of the ministry; and, on the subject of the other articles which had been submitted to her, she was willing to be directed by the three estates of the kingdom, and to concur in the resolutions which should appear to them the most reasonable and expedient. The clergy, in a new assembly, expressed high displeasure at this answer to their address. They told the queen that the doctrines of the reformation, which she refused to adopt, were the religion which had been revealed by Jesus Christ, and taught by the apostles. They required of her, therefore, to embrace the means of attaining the truth which were offered to her in the preaching of the word, or by the appointment of public disputations between them and their adversaries. The errors of the mass were placed before her in all their deformity. The sayer of it, the action itself, and the opinions expressed in it, were all pronounced to be equally abominable. To hear the mass, or to gaze upon it, was to commit the complicated crimes of sacrilege, blasphemy, and idolatry. Her delicacy in not renouncing her opinions from the apprehension of offending the king of France and her other allies they ridiculed. They told her that the true religion of Christ was the only means by which any confederacy could endure; and that it would bring to her the friendship of the King of kings. As to patronages being a portion of her patrimony, they intended not to defraud her of her rights; but it was their judgment that the superintendants ought to make a trial of the qualifications of candidates for the ministry; and, if no trials or examinations of ministers took place, the church would be filled with misrule and ignorance. And as to her opinion, that a suitable assignment should be made for them, they begged her to condescend to adopt a proper scheme for this end, and

to carry it into execution; and that, taking into a due consideration the other articles of their demands, she would study to comply with them, and to do justice to the religious establishment of her people. From the fears of the people about their religion, disturbances and insurrections were unavoidable; and, before Mary had given her answer to the petitions of the clergy, the Protestants, in a formidable number had marched to St. Leonard's Craig; and, dividing themselves into companies, had chosen captains to command them. But, the leaders of this tumult being apprehended, it subsided by degrees; and the queen, upon the intercession of the magistrates of Edinburgh, gave them a free pardon. To quiet the apprehensions which had gone abroad of her inclination to overturn the reformed doctrines, she repeatedly issued proclamations, assuring her subjects that it was her fixed determination not to disturb any person upon account of his religion or conscience; and that she would never attempt any innovation that might endanger the public tranquillity. While Mary was thus conducting her affairs with prudence, the earl of Murray and his confederates continued their intrigues. They perceived that their only hope of success depended upon Elizabeth; and, as Randolph had promised them her protection and assistance, they addressed a letter to her, explaining their views and situation. The pretences of hostility to their sovereign, upon which they affected to insist, were her settled design to overturn the Protestant religion, and her rooted desire to break all amity with England. But with her support and aid they did not doubt of being able to advance effectually the advantage of the two kingdoms. They applied not, however, for any supply of troops. An aid from her treasury was now only necessary; and they engaged to bestow her bounty in the manner most agreeable to her inclinations and her interests. The pleasure with which Elizabeth received their application was equal to the aversion she had conceived against the queen of Scots. She not only granted the relief they requested, but assured them by Randolph of her esteem and favor while they should continue to uphold the reformed religion and the connexion of the two nations. Flattered by her assurances, they were strenuous to gain partizans, and to disunite the friends of their sovereign; and, while they were secretly preparing for rebellion, they disseminated among the people the tenets that a Papist could not legally be their king; that the queen was not at liberty of herself to make the choice of a husband; and that, in a matter so weighty, she ought to be entirely directed by the determination of the three estates in parliament. Elizabeth, carrying her dissimulation to the most criminal extremity, commanded Randolph to ask an audience of Mary; and to counsel her to harbour no suspicions of the earl of Murray and his friends; to open her eyes to their sincerity and honor; and to call to mind that, as their services had hitherto preserved her kingdom in repose, her jealousies of them might kindle it into combustion, make the blood of her nobles to flow, and cast into hazard her person and her crown. Full of astonishment at a message so

rude, the queen of Scots desired him to inform his mistress that she required not her instructions to distinguish between patriotism and treachery; that she was fully sensible when her will was resisted or obeyed; and that she possessed a power which was more than sufficient to repress and to punish the crimes of her subjects. The English resident went now to the earl of Lennox and the lord Darnley, and charged them to return to England. The former expressed an apprehension of the severity of his queen, and sought an assurance of her favor before he could venture to visit her dominions. The latter, exerting greater fortitude, told him that he acknowledged no duty or obedience but to the queen of Scots. The resident, treating this answer as disrespectful to Elizabeth, turned his back upon lord Darnley, and retired without bidding him adieu. This behaviour of Elizabeth, so fierce and so perfidious, was well calculated to confirm all the intentions of Mary. But, while the queen of Scots was eager to accomplish her marriage, she was not inattentive to the rising troubles of her country. The parliament which she had appointed could not now be held: it was therefore prorogued to a more distant day; and the violence of the times did not then permit it to assemble. By letters she invited to her, with all their retainers, the most powerful and the most eminent of her subjects. Bothwell was recalled anew from France; and by general proclamations she summoned to her standard the united force of her kingdom. The castle of Edinburgh was likewise provided amply with stores and ammunition. The alacrity with which her subjects flocked to her from every quarter assured her of her power and popularity; while it struck Murray and his adherents with the danger to which they were exposed. On the 29th of July, 1565, the ceremony of marriage between the queen and lord Darnley was performed. The latter had been previously created duke of Albany. The day before the marriage a proclamation was published, commanding him to be styled king of the realm, and that all letters after their marriage should be directed in the names of her husband and herself. The day after a new proclamation was issued confirming this act; he was pronounced king by the sound of trumpets, and associated with the queen in her government: a measure which seems to have been the effect of the extreme attachment the queen had for her husband, which did not permit her to see that it was an infringement of the constitution.

The earl of Murray remonstrated that a king was imposed upon the nation without the consent of the three estates, and called upon the nation to arm against the beginnings of tyranny. The malcontents were quickly in arms; but their success did not answer their expectations. The majority of the nation were satisfied with the good intentions of their sovereign, and she herself took the earliest opportunity of crushing the rebellion in its infancy. The earl of Murray was declared a traitor; and similar steps were taken with other chiefs of the rebels. She then took the field against them at the head of a considerable army; and, having driven them from

place to place, obliged them at last to take refuge in England. Queen Elizabeth received them with that duplicity for which her conduct was so remarkable. Though she herself had countenanced, and even excited them to revolt, she refused to give an audience to their deputies. Nay, she even caused them to emit a public declaration, that neither she, nor any person in her name, had ever excited them to their rebellious practices. Yet, while the public behaviour of Elizabeth was so acrimonious, she afforded them a secure retreat in her kingdom, treated the earl of Murray in private with respect and kindness, and commanded the earl of Bedford to supply him with money. Mary, however, resolved to proceed against the rebels with an exemplary rigor. The submissions of the duke of Chatelherault alone, who had been less criminal than the rest, were attended to. But even the favor which he obtained was precarious and uncertain; for he was commanded to use the pretence of sickness, and to pass for some time into foreign countries.

A parliament was called; and a summons of treason being executed against the earls of Argyle, Glencairn, and Rothes, with others of the principal rebels, they were commanded to appear before the three estates; in default of which their lives and estates were declared to be forfeited. In the mean time Throgmorton the English ambassador solicited the pardon of the rebels; which Mary was at first inclined to grant. However, by the persuasion of the court of France, she was not only induced to proceed against them with rigor, but acceded to the treaty of Bayonne, by which the destruction of the Protestants was determined. This measure filled the whole court with terror and dismay. The rebels were acquainted with the danger of their situation; and, being now driven desperate, they were ready to engage in the most atrocious designs. Unhappily, the situation of affairs in Scotland rendered the accomplishment of their purposes but too easy. Violent disgusts had taken place between the queen and her husband. Her fondness had been excessive; but she soon perceived that the qualities of his mind were not proportioned to his personal accomplishments. He was proud, disdainful, suspicious, wilful, giddy and obstinate, insolent and mean. The queen in consequence began to show an indifference towards him; which he took care to augment, by showing the like indifference towards her, and engaging in low intrigues and amours, indulging himself in dissipation and riot, &c. However, the desire of dominion was his ruling passion; and the queen, finding his total incapacity for exercising his power to any good purpose, had excluded him from it altogether. He was therefore a proper object for the machinations of the rebels, and readily entered into an agreement with them to depose the queen; vainly thinking that he should thus secure the crown to himself. However as the parliament was soon to assemble, in which the rebels had every reason to believe that they would be condemned for high treason, it was necessary that the kingdom should be thrown into disorder before that time came, otherwise their fate was inevitable. Practising on the imbecility of Darn-

ley, they persuaded him that a criminal correspondence subsisted between the queen and David Rizzio. Of all the slanders circulated against queen Mary, this appears the most ridiculous and incredible; Rizzio was both old and of very unattractive appearance. But the king was resolved upon his destruction; and the conspirators hoped thereby not only to get an indemnity, but to effect a total revolution at court, and the entire humiliation of Bothwell, Huntly, and Athol, who were the associates of Rizzio. However, to save themselves, they engaged the king to subscribe a bond, affirming that the project of assassinating Rizzio was altogether of his own devising; acknowledging that he had solicited them to take a part in it, from the apprehensions that resistance might be made to him; and agreeing, upon the word and honor of a prince, to protect and secure them against every hazard and injury to which they might be exposed from the achievement of his enterprise. Having procured this security, and having allured the earl of Lennox the king's father to approve of their measures, they adjusted the method of the projected murder, and despatched a messenger to the English frontier, advertising the earl of Murray and the rebels of their intentions, and inviting them to return to the court. Upon the 9th of March, about seven o'clock P. M. armed men, to the number of 500, surrounded the palace of Holyrood. The earl of Morton and lord Lindsay entered the court of the palace, with 160 persons. The queen was in her chamber at supper, with her natural sister the countess of Argyle, her natural brother Robert commendator of Holyrood House, Beton of Creich master of the household, Arthur Erskine, and David Rizzio. The king, entering the apartment, seated himself by her side. He was followed by lord Ruthven, who being wasted with sickness, and cased in armour, exhibited an appearance that was hideous and terrible. Four ruffians attended him. In a hollow voice he commanded Rizzio to leave a place which did not become him. The queen, in astonishment, asked the king the meaning of this mysterious enterprise. He affected ignorance. She ordered Ruthven from her presence under pain of treason; declaring that, if Rizzio had committed any crime, she would produce him before the parliament, and punish him according to the laws. Ruthven, drawing his dagger, advanced towards Rizzio. The queen rose to make an exertion of her authority. The unfortunate stranger laid hold of her garments, crying out for justice and mercy. Other conspirators, rushing into the chamber, overturned the table, and increased the dismay and confusion. Loaded pistols were presented to the bosom of the queen. The king held her in his arms. George Douglas, snatching the dagger of his sovereign, plunged it into the body of Rizzio. The wounded and screaming victim was dragged into the antichamber; and so eager were the assassins to complete their work that he was mangled with fifty-six wounds. While the queen was pressing the king to gratify her enquiries into the meaning of a deed so execrable, Ruthven returned into their presence. She gave a full vent to indignation and reproach.

Ruthven, with an intolerable coldness and deliberation, informed her that Rizzio had been put to death by the counsel of her husband, whom he had dishonored; and that by the persuasion of this minion she had refused the crown matrimonial to the king, had engaged to re-establish the ancient religion, had resolved to punish the earl of Murray and his friends, and had entrusted her confidence to Bothwell and Huntly, who were traitors. The king, taking the part of Ruthven, remonstrated against her proceedings, and complained that from the time of her familiarity with Rizzio she had neither regarded, entertained, nor trusted him. His suspicions and ingratitude shocked and tortured her. His connexion with the conspirators gave her an ominous anxiety. Apprehensions of outrages still more atrocious invaded her. In these agitated moments she did not lose herself in the helplessness of sorrow. The loftiness of her spirit communicated relief to her; and, wiping away her tears, she exclaimed, that it was not now a season for lamentation, but for revenge.

The earls of Huntly, Bothwell, and Athol, lords Fleming and Livingston, and Sir James Balfour, who were at this time in the palace, found all resistance to be vain. Some of them, eluding the vigilance of Morton, made their escape; and others were allowed to retire. The provost and magistrates of Edinburgh, hearing of the tumult, ordered the alarm bell to be rung. The citizens ran in crowds to enquire into the welfare of their sovereign; but she was not permitted to address them. The conspirators told her that, if she presumed to make any harangue, they would 'cut her in pieces, and cast her over the walls.' The king called to the people that she was well, and commanded them to disperse. The queen was shut up in her chamber, uncertain of her fate, and without the consolation or attendance of her women. In the morning a proclamation was issued by the king, without the knowledge of his queen, prohibiting the meeting of the parliament, and ordering the members to retire from the city. The rebellious lords now returned from England, and arrived at Edinburgh within twenty-four hours after the assassination of Rizzio. The queen, knowing of how much consequence it was for her to gain the earl of Murray, invited him to wait upon her. Notwithstanding the extreme provocation which she had met with, Mary so far commanded her passions that she gave him a favorable reception. After informing him of the rudeness and severity of the treatment she had met with, the queen observed, that, if he had remained in friendship with her at home, he would have protected her against such excesses of hardship and insult. Murray, with an hypocritical compassion, shed tears; while the queen seemed to entertain no doubt of his sincerity, but gave him room to hope for a full pardon of all his offences. In the mean time, however, the conspirators were consulting, whether they should hold the queen in perpetual captivity, or put her to death; or whether they should content themselves with committing her to close custody in Stirling castle, till they should obtain a parliamentary sanction to their proceedings, establish the Protestant reli-

gion by the total overthrow of the mass, and invest the king with the crown matrimonial and the government of the kingdom. Mary now began to perceive the full extent of her wretchedness; and therefore, as her last resource, applied to the king, whom she treated with all the blandishments of her sex. The king, who, with all his faults, had a natural facility of temper, was easily gained over. The conspirators were alarmed at his coldness, and endeavoured to fill his mind with fears concerning the duplicity of his wife; but, finding they could not gain their point, they at last began to treat of an accommodation. The king brought them a message, importing that Mary was disposed to bury in oblivion all memory of their transgressions; and he offered to conduct them into her presence. The earls of Murray and Morton, with the lord Ruthven, attending him into her presence, and, falling on their knees before the queen, made their apologies and submissions. She commanded them to rise; and having desired them to recollect her abhorrence of cruelty and rapaciousness, she assured them, with a gracious air, that instead of designing to forfeit their lives, and possess herself of their estates, she was inclined to receive them into favor, and to give a full pardon, not only to the nobles who had come from England, but to those who had assassinated David Rizzio. They were accordingly ordered to prepare the bonds for their security and forgiveness, which the queen promised to take the earliest opportunity of subscribing; but in the mean time the king observed that the conspirators ought to remove the guards which they had placed around the queen, that all suspicion of restraint might be taken away. This measure could not with any propriety be opposed, and the guards were therefore dismissed; upon which the queen, that very night, left her palace at midnight, and took the road to Dunbar, accompanied by the king and a few attendants. The news of the queen's escape threw the conspirators into the utmost consternation; as she immediately issued proclamations for her subjects to attend her in arms, and was powerfully supported. They sent therefore lord Semple, requesting, with the utmost humility, her subscription to their deeds of pardon and security; but to this message she returned an unfavorable answer, and advanced towards Edinburgh with an army of 8000 men. The conspirators now fled with the utmost precipitation. Even John Knox retired to Kyle till the storm should blow over. On the queen's arrival at Edinburgh, a privy council was instantly called, in which the conspirators were charged to appear as guilty of murder and treason; their places of strength were ordered to be given up to the officers of the crown; and their estates and possessions were made liable to confiscation and forfeiture. But, while the queen was thus eager to punish the conspirators, she was sensible that so many of the nobility, by uniting in a common cause, might raise a powerful party in opposition to her; for which reason she endeavoured to detach the earl of Murray from the rest, by making him offers of pardon. Sir James Melvil accordingly pledged himself to produce his pardon and that

of his adherents, if he would separate from Morton and the conspirators. He accordingly became cold and distant to them, and exclaimed against the murder as a most execrable action; but, notwithstanding his affected anger, when the conspirators fled to England, he furnished them with letters of recommendation to the earl of Bedford. After the flight of the conspirators, the king thought it necessary for him to deny his having any share in the action. He therefore embraced an opportunity of declaring to the privy council his total ignorance of the conspiracy against Rizzio; and not satisfied with this, by public proclamations at the market-place of his capital, and over the whole kingdom, protested to the people at large that he had never bestowed upon it, in any degree, the sanction of his command, consent, assistance, or approbation. In the mean time the queen granted a full and ample pardon to the earls of Murray, Argyle, Glencairn, and Rothes, and their adherents; but towards the conspirators she remained inexorable. This lenity, to Murray especially, proved a source of the greatest inquietude to the queen; for this nobleman, blind to every motive of action distinct from his own ambition, began to contrive new plots, which, though disappointed for a time, soon operated to the destruction of the queen, and almost to the ruin of the nation.

In 1566 the queen was delivered of a prince, who received the name of James. This happy event, however, did not extinguish the quarrel betwixt her and the king. His desire to intrude himself into her authority, and to fix a stain upon her honor, his share in the murder of Rizzio, and his extreme meanness in publicly denying it afterwards, could not fail to impress her with the strongest sentiments of detestation and contempt. Unable, however, totally to divest herself of regard for him, her behaviour, though cold and distant, was yet decent and respectful. Castelnau, ambassador extraordinary from France, endeavoured to bring about a reconciliation; nor were his endeavours altogether ineffectual. The king and queen spent two nights together; and proceeded, in company to Meggatland in Tweedale, to enjoy the diversion of the chase, attended by the earls of Huntly, Bothwell, Murray, and other nobles. Thence they passed to Edinburgh, and then took the road to Stirling. Had the king been endowed with any prudence, he would have made the best use of this opportunity to have regained the affections of his queen; but, instead of this, finding that he was not immediately entrusted with power, his peevishness suggested to him a design of going abroad. To M. du Croc, the French resident, who had attended Mary at Stirling, he ventured to communicate his chimerical project. This statesman represented to him its wildness and inefficacy; and could hardly believe that he was serious. His father and all the courtiers endeavoured to dissuade him from it. They admonished him to remember that his flight would expose him to every kind of ridicule and disgrace. They pointed out the happiness of his fortune, and counselled him not to part lightly with its flattering advantages. The queen herself, taking his hand into her's, and pressing it with affection, besought him to

say by what act or deed she had unfortunately induced him to conceive so fatal a purpose? Her memory did not reproach her with any crime or indiscretion, which affected his honor or her integrity; yet, if she had undesignedly incurred his displeasure, she was disposed to atone for it: and she begged him to speak freely. M. du Croc then asked him to reveal his inquietudes. But all this attention was ineffectual. Obstinately froward, he refused to confess that he intended any voyage, and made no mention of any reasons of discontent. He acknowledged with readiness that he could not accuse the queen of any offence. In perturbation, he prepared to retire; and, turning to her, said, 'Adieu, madam! you shall not see me for a long time.' He then bowed to the French envoy and to the lords of the privy council, and hastened back to Stirling, leaving the queen and her council in astonishment. They resolved to watch his motions, and could not conjecture what step he would take. Mary despatched a courier to advertise the king of France and the queen-mother of his conduct. But it was not possible that a prince so meanly endowed with ability could make any impression upon her allies. He was universally odious; and at this time the queen was in the highest estimation with the great body of her subjects. After passing some days at Stirling, he addressed a letter to the queen, in which, after hinting at his design of going abroad, he insinuated his reasons of complaint. 'He was not entrusted by her with authority, and she was no longer studious to advance him to honor. He was without attendants; and the nobility had deserted him.' Her answer was sensible and temperate. She called to his remembrance 'the distinctions she had conferred upon him, the uses to which he had put the credit and reputation accruing from them, and the heinous offences he had encouraged in her subjects. Though the plotters against Rizzio had represented him as the leader of their enterprise, she had behaved as if she believed not his participation in the guilt of that project. As to the defects of his retinue, she had uniformly offered him the attendance of her own servants. As to the nobility they were the supports of the throne, and independent of it. Their countenance was not to be commanded, but won. He had discovered too much stateliness to them; and they were the proper judges of their own deportment. If he wished for consequence, it was his duty to pay them attention; and, whenever he should conciliate their regard, she would be happy to give him all the importance that belonged to him.' In the mean time the earls of Murray and Bothwell were industriously striving to widen the breach between the king and queen, and at the same time to foment the division between the king and his nobles. The earl of Morton excited disturbances on the borders; and, as no settled peace had taken place there since Mary's marriage, there was the greatest reason to believe that he would succeed in his attempts. Proclamations were therefore issued by the queen to call her subjects to arms: and she proceeded to Jedburgh to hold justice-courts. In the course of this journey she was

taken dangerously ill: as soon as she was able to travel she visited Kelso, Werk Castle, Hume, Langton, and Wedderburn. The licentious borderers, on the first news of her recovery, laid down their arms. Being desirous to take a view of Berwick, the queen advanced to it with an attendance of 1000 horse. Sir John Forster, the deputy warden of the English marches, came forth with a numerous retinue, and conducted her to the most proper station for surveying it, and paid her all the honors in his power, by a salute of the artillery, and other demonstrations of joy. Continuing her journey, she passed to Eyemouth, Dunbar, and Tamallan; proceeding thence to Craigmillar Castle, where she proposed to remain till the time of the baptism of the prince, which was to be celebrated at Stirling. During her severe sickness her husband had kept himself at a distance; but, when she was so far recovered as to be out of danger, he made his appearance; and, being received with some coldness, he retired suddenly to Stirling. This cruel neglect was a most sensible mortification to her. She was seized with a settled melancholy; and in her anguish often wished for death to put a period to her existence. Her nobles, who were caballing against her, remarked her condition, and took advantage of it. Bothwel, who had already recommended himself by his services, redoubled his efforts to heighten the favor which these services had induced her to conceive for him. At this time he sought to gain the affection of the queen, with a view to marry her himself, providing a divorce from her husband could be obtained, which was now become the subject of consultation by Murray and his associates. After much deliberation the queen herself was acquainted with this project; and it was told her that, provided she would pardon the earl of Morton and his associates, the means should be found of effectuating the divorce. This was urged as a matter of state by the earls of Murray, Lethington, Argyle, and Huntly; and the queen was invited to consider it as an affair which might be managed without any interference on her part. The queen replied that she would listen to them, upon condition that the divorce could be obtained according to the laws, and that it should not be in any way prejudicial to her son; but, if they meant to operate their purpose by a disregard to these points, they must not think any more of it; for, rather than consent to their views, she would endure all the torments, and abide by all the perils, to which her situation exposed her. Lethington, upon this, in the name of the rest, engaged to deliver her from her husband, without prejudice to her son: words which could not be understood otherwise than as pointing at murder. Lord Murray, added he, who is here present, scrupulous as he is, will connive, and behold our proceedings without opening his lips. The queen is said immediately to have made answer, 'I desire that you will do nothing from which any stain may be fixed upon my honor or conscience; and I therefore require the matter to rest as it is, till God of his goodness send relief. What you think to be of service to me may turn out to my displeasure and harm.' It appears that from this moment a plot was formed by Murray,

Bothwel, and Lethington against the life of Darnley, and by some of them probably against the queen herself; and that Morton, who with the other conspirators against Rizzio had received a pardon, was closely associated with them in their nefarious designs. That profligate peer was, in his way to Scotland, met at Whittingham by Bothwel and the secretary. They proposed to him the murder of the king, and required his assistance, alleging that the queen herself consented to the deed: to which Morton by his own account replied that he was disposed to concur, provided he were sure of acting under any authority from her; but Bothwel and Lethington, having returned to Edinburgh on purpose to obtain such an authority, sent him back a message, that the queen would not permit any conversation upon that matter. In the mean time preparations were made for the baptism of the young prince; to assist at which the queen left Craigmillar, and went to Stirling. The ceremony was performed on the 17th of December, 1566. He was called Charles-James-James-Charles, and proclaimed by the heralds prince and steward of Scotland, duke of Rothesay, earl of Carrick, lord of the isles, and baron of Renfrew. Amidst the scenes of joy displayed on this occasion the king showed greater folly than ever. Though he had often kept at a greater distance before, he took up his residence at Stirling, as if he had meant to offend the queen, and to expose their quarrels: chiefly confining himself to his chamber. His strange behaviour, however, did not give the public any favorable idea of him; and, as the earl of Murray and his faction took care to augment the general odium, no court was paid to him by foreign ambassadors. His situation, therefore, was exceedingly uncomfortable; but, though he must have been conscious of its imprudence, he did not alter his conduct. In a sullen humor he left Stirling, and proceeded to Glasgow. Here he fell sick, with such symptoms as seemed to indicate poison. He was tormented with violent pains, and his body was covered with pustules of a bluish color; so that his death was daily expected. Mary did not repay his coldness to her by negligence. She set out immediately for Glasgow, and waited on him with all the assiduity of an affectionate wife until he recovered; after which she returned with him to Edinburgh; and, as the low situation of the palace of Holyrood House was thought to render it unhealthy, the king was lodged in a house which had been appointed for the superior of the church called St. Mary's in the Fields. This house stood upon a high ground, at the back of that ground where the royal infirmary now stands, and in a salubrious air; and here she staid with him some days. Here the conspirators thought proper to finish their plot in the most execrable manner. On the 10th of February, 1567, about two o'clock in the morning, the house where the king resided was blown up by gunpowder. The explosion, alarming the inhabitants, excited a general curiosity, and brought multitudes to the place whence it proceeded. The king was found dead and naked in an adjoining field, with a servant who used to sleep in the same apartment with him. On neither was there any mark of fire or other external injury. Till the

late improvements of the city, when all incumbrances were cleared away, the gate in the old wall, at the back of the king's house, by which the conspirators entered and returned from their bloody business, was distinctly visible, though long ago built up.

The queen was in the palace of Holyrood House, taking the diversion of a masked ball, which was given to honor the marriage of a favorite domestic, when the news of the king's death was brought to her. She showed the utmost grief, and appeared exasperated to the last degree against the perpetrators of a deed at once so shocking and barbarous. The most express and positive orders were given to enquire after the perpetrators by every possible method. A proclamation was issued by the privy council, assuring the people that the queen and nobility would leave nothing undone to discover the murderers of the king. It offered £2000, and an annuity for life, to any person who should give information of the devisers, counsellors, and perpetrators of the murder; and, besides this reward, the promise of a full pardon, to the conspirator who should make a free confession of his own guilt, and that of the confederates. On the fourth day after this proclamation was published a placard was affixed to the gate of the city prison, affirming that the earl of Bothwel, James Balfour, David Chalmers, and black John Spence, were the murderers. No name, however, was subscribed to this intelligence, nor was any demand made for the proffered reward; so that it was difficult to know whether this advertisement had been dictated by a spirit of calumny or the love of justice. In the mean time the earl of Murray conducted himself with his usual circumspection and artifice. Upon a pretence that his wife was dangerously sick at his castle in Fife, he, the day before the murder, obtained the queen's permission to pay a visit to her. Thus he proposed to prevent all suspicion whatever of his guilt. He was so full, however, of the intended project that, while he was proceeding on his journey, he observed to the person who accompanied him, 'This night, before morning, the lord Darnley shall lose his life.' When the blow was struck, he returned to Edinburgh to carry on his practices. Among foreign nations the domestic disputes of the queen and her husband being fully known, it was with the greater ease that reports could be propagated to her disadvantage. To France letters were despatched, expressing in fervent terms her participation in the murder. In England the ministers and courtiers of Elizabeth could not flatter that princess more agreeably, than by industriously detracting from the honor and the virtue of the Scottish queen. Within her own dominions a similar spirit of outrage exerted itself, and not without success. Her reconciliation with her husband was interpreted to be dissimulation and treachery. The Protestant clergy, who were her most determined enemies, possessed a leading direction among the populace; and they were the friends and the partizans of the earl of Murray. Open declamations from the pulpit were at the same time made against Bothwel; and papers were dispersed making the queen a party with him in the mur-

der. Every art was employed to provoke the frenzy of the people. Voices, interrupting the silence of the night, proclaimed the infamy of Bothwel; and portraits of the regicides were circulated over the kingdom. The queen's determination, however, to scrutinize into the matter was unabated; and to the earl of Lennox, the king's father, she paid an attention which he could only have expected from her upon an emergency of this kind. Having pressed her by letter to the most diligent enquiry after the regicides, she returned an answer so completely to his wishes that he was fully convinced of the sincerity and rigor with which she intended to proceed against them; and he urged her to assemble the three estates, that their advice might direct the order and manner of their trial. She wrote to him that an assembly of the estates was already proclaimed; that it was her earnest and determined will and purpose that no step should be neglected that could conduce to the execution of justice: and that, although she had thought it expedient to call a meeting of the parliament at this juncture, it was not her meaning that the proceedings against the regicides should be delayed till it was actually assembled: adding that if he would condescend to mention the names which, in his opinion, were most suspicious, she would instantly command that those steps should be taken which the laws directed and authorised. He in return named the earl of Bothwel, James Balfour, David Chalmers, black John Spence, Francis Sebastian, John de Bourdeaux, and Joseph, the brother of David Rizzio; and assured her majesty that his suspicions of these persons were weighty and strong. In reply to his information, Mary gave him her solemn promise that the persons he had pointed out should undergo their trial in conformity to the laws, and that they should be punished according to the measure of their guilt: and she invited him to leave immediately his retirement, and to meet her at her court, that he might witness the proceedings against them, and the zeal with which she was animated to perform the part that became her. While the queen carried on this correspondence with the earl of Lennox she resided partly at the palace of lord Seton, a few miles from her capital, and partly at Holyrood House. By the time that she sent her invitation to him she was residing in her capital. She delayed not to confer with her counsellors, and to lay before them the letters of the earl of Lennox. Bothwel was earnest in his protestations of his innocence; and he even expressed his wish for a trial, that he might establish his integrity. No facts pointed to his guilt; there had appeared no accuser but the earl of Lennox; and no witnesses had been found who could establish his criminality. Her privy council seemed to be firmly persuaded that he was suffering under the malice of defamation. Murray, Morton, and Lethington, whatever might be their private machinations, were publicly his most strenuous defenders; and they explained the behaviour of the earl of Lennox to be the effect of jealousy against a nobleman who had outrun him so far in the career of ambition. But though all the arts of Murray and Bothwel, Morton and Lethington, were exerted to mislead the queen, they

were not able to withhold her from adopting the strain of conduct which was the most proper and honorable to her. It was her own ardent desire that the regicides should be punished; she had given her solemn promise to the earl of Lennox that the persons whom he suspected should be prosecuted; and amidst all the appearances in favor of Bothwel, and all his influence, it is a striking proof of her honor, vigor, and ability, that she could accomplish this measure. An order, accordingly, of the privy council was made, which directed that the earl of Bothwel, and all the persons named by Lennox, should be brought to trial for the murder of the king, and that the laws of the land should be carried into full execution. The 12th of April was appointed for the trial. A general invitation was given to all persons whomsoever to prefer their accusations. The earl of Lennox was formally cited to do himself justice, by appearing in the high court of justiciary, and by coming forward to make known the guilt of the culprits. In the mean time it was thought proper to repress that spirit of outrage that had manifested itself against the queen. No discoveries, however, were made, except against James Murray, brother to Sir William Murray of Tullibardin, who at different times had published placards injurious to her. He was charged to appear before the privy council; but, refusing to obey its citation, it was made a capital offence for any commander of a vessel to convey him out of the kingdom; and the resolution was taken to punish him with an exemplary severity. Effecting, however, his escape, he avoided the punishment due to his repeated and detestable acts of calumny and treason. The day for the trial of Bothwel approached. The conspirators, notwithstanding their power, were not without apprehensions. Their preparations, however, for their safety had been anxious; and, among other practices, they threw the earl of Lennox into a panic. They were favored by his consciousness of his unpopularity, and his want of strength, by his timidity and spirit of jealousy: by the time he had reached Stirling, in his way to Edinburgh, his fears predominated. He was no longer in haste to proceed against the regicides. He addressed a letter to the queen, in which he said he had fallen into such sickness that he could not travel; and he affirmed that he had not time to prepare for the trial and to assemble his friends. An application for the delay of a trial so important, upon the night immediately preceding the day stated for it, for reasons of no force, could not with propriety be attended to. The privy council refused the earl's demand. The court of justiciary was assembled. The earl of Argyle acted as lord high justiciar; and was aided by four assessors, Robert Pitcairn, commendator of Dumfermline, and lord Lindsay; with Mr. James Macgill and Mr. Henry Balnaves, two lords of the session. The indictment was read, and the earls of Bothwel and Lennox were called upon; the one as the defender, the other as the accuser. Bothwel, who had come to the court with an attendance of his vassals, and a band of mercenary soldiers, presented himself; but Lennox appeared only by his servant Robert Cun-

nynglam; who after apologising for the earl's absence, from the shortness of time and the absence of his friends, desired that a new day should be appointed for the trial; and protested that, if the jury should now enter upon the business, they would incur the guilt of a wilful error, and their verdict be of no force. This remonstrance and protestation appeared not to the court of sufficient importance to interrupt the trial. They paid a greater respect to the letters of the earl of Lennox to the queen insisting upon an immediate prosecution, and to the order of the privy council consequent upon them. The jury, who consisted of men of rank, after considering and reasoning upon the indictment for a considerable time, were unanimous in acquitting Bothwel of all share and knowledge of the king's murder. The machinations, however, of Morton were so apparent that the earl of Caithness, the chancellor of the assize, made a declaration, in their name and his own, that no wilful error ought to be imputed to them for their verdict, no proof, vouchers, or evidence, to support or confirm the criminal charge, having been submitted to them. At the same time he offered a protestation, for himself, that there was a mistake in the indictment, the 9th day of February, instead of the 10th, being expressed in it as the date of the murder. It is not to be doubted but that this flaw in the indictment was a matter of design, and with a view to the advantage of Bothwel, if the earl of Lennox had made his appearance against him. And it has been remarked, as very suspicious, that soldiers in arms should have accompanied him to the court of justice; that, during the trial, the earl of Morton stood by his side, to countenance and assist him; and that the four assessors to the chief justiciar were warm and strenuous friends of Murray's.

Immediately after his trial, Bothwel set up in a conspicuous place a writing, subscribed by him, challenging to single combat any person of equal rank with himself who should dare to affirm that he was guilty of the king's murder. To this challenge an answer was published, in which the defiance was accepted upon the condition that security should be given for a fair and equal conflict: but, no name being subscribed to this paper, no step was taken for the duel. Two days after the parliament met: and there the party of Bothwel appeared equally formidable. The verdict in his favor was allowed to be true and just. He was continued in his high offices; and obtained a parliamentary ratification of the place of keeper of Dunbar castle, with the estates in connexion with it; and other favors were conferred upon Murray, with the rest of the nobles suspected as accomplices in the murder. A very short time after the acquittal of Bothwel he began to give a greater loose to his ambition, and conceived hopes of gaining the queen in marriage. It has been already remarked that he had insidiously endeavoured to gain her affection during the lifetime of her husband; but the recent death of the king in such a shocking manner, and the strong suspicions still resting upon him, notwithstanding his acquittal, prevented him from making his addresses openly to her. He therefore

endeavoured to gain the nobility over to his side ; which having done, by means of great promises, he invited them to an entertainment, where they agreed to ratify a deed pointing him out to the queen as a person worthy of her hand, and expressing their resolute determination to support him in his pretensions. This extraordinary bond was accordingly executed ; and Murray's name was the first in the list of subscribers, to decoy others to sign after him ; but, that he might appear innocent of what he knew was to follow, he had, before any use was made of the bond, asked and obtained the queen's permission to go to France. In his way thither he visited the court of Elizabeth, where he did not fail to confirm all the reports which had arisen to the disadvantage of Mary ; and he now circulated the intelligence that she was soon to be married to Bothwel. Her partizans in England were exceedingly alarmed ; and even Elizabeth herself wrote to her, and cautioned her not to afford such a mischievous handle to the malice of her enemies. Mary, upon the dissolution of the parliament, had gone to Stirling to visit the young prince. Bothwel, armed with the bond of the nobles, assembled 1000 horse, under the pretence of protecting the borders, of which he was the warden ; and, meeting her upon her return to her capital, dismissed her attendants, and carried her to his castle of Dunbar. The arts which he there used to effect the accomplishment of his wishes are mentioned under the article MARY. But having been married only six months before to lady Jane Gordon, sister to the earl of Huntly, it was necessary to procure a divorce before he could marry the queen. This was easily obtained. The parties were cousins within the prohibited degrees, and had not obtained a dispensation from Rome. The marriage therefore, in the opinion of the queen and her Roman Catholic subjects, was illicit. The husband had also been unfaithful ; so that two actions of divorce were instituted. The lady commenced a suit against him in the court of commissaries, charging him as guilty of adultery with one of her maids. The earl brought a suit against his wife before the archbishop of St. Andrews, upon the plea of consanguinity. By both courts their marriage was decided to be void ; and thus two sentences of divorce were pronounced.

Bothwel now conducted the queen from Dunbar to her capital. But, instead of attending her to her palace at Holyrood House, his jealousy and apprehensions induced him to lodge her in the castle of Edinburgh, where he could hold her in security against any attempt of his enemies. To give satisfaction, however, to her people, and to convince them that she was no longer a prisoner, a public declaration upon her part appeared to be a measure of expediency. She presented herself, therefore, in the court of session ; the lords chancellor and president, the judges, and other persons of distinction, being present. After observing that some stop had been put to the administration of justice upon account of her being detained at Dunbar against her will by the lord Bothwel, she declared that, though she had been highly offended with the outrage offered her, she was yet inclined to forget it. His cour-

teousness, the sense she entertained of his past services to the state, and the hope with which she was impressed of his zeal and activity for the future, compelled her to give him and his accomplices in her imprisonment a full pardon. She also desired them to take notice that she was now at her liberty ; and that she proposed, in consideration of his merits, to take an early opportunity of promoting him to new honors. At length the order was given for the proclamation of the banns of marriage between them, and Mr. John Craig, one of the ministers of Edinburgh, was desired to perform this business. But, though the order was subscribed by the queen, he refused his compliance without the authority of the church. The church, after long reasonings, granted him permission to discharge this duty. But his scruples were not yet removed. He protested that, in obeying their desire, he should be allowed to speak his own sentiments concerning the marriage, and that his publishing the banns should infer no obligation in him to officiate in the solemnity. In his congregation, accordingly, before a crowded audience, and in the presence of several noblemen and privy counsellors, he declared that the marriage of the queen and the earl of Bothwel was unlawful, and that he was prepared to give his reasons for this opinion to the parties themselves. He added that, if leave to do this was denied him, he would either abstain altogether from proclaiming the banns, or take the liberty, after proclaiming them, to inform his people of the causes of his disapprobation of the marriage. He was carried before the lords of the privy council ; and the earl of Bothwel called upon him to explain his behaviour. He answered that the church had prohibited the marriage of persons separated for adultery ; and that the divorce between him and his wife must have been owing to collusion ; since the sentence had been given with precipitation, and since his new contract was so sudden ; and he objected to him the abduction and ravishment of the queen, and the suspicion of his guilt in the king's murder. This bold language drew no reply from Bothwel that was satisfactory to Mr. Craig, or that could intimidate him. He proclaimed in his church the banns of the marriage ; but he told the congregation that he discharged the suggestions of his conscience in pronouncing it to be a detestable and scandalous engagement. He expressed the sorrow he felt for the conduct of the nobility who seemed to approve it from their flattery or silence ; and, addressing himself to the faithful, he besought them to pray to the Almighty that he would turn a resolution intended against law, reason, and religion, into a comfort and benefit to the church and the kingdom. These freedoms were too great to pass unnoticed. Mr. Craig was ordered anew to attend the privy council ; and he was reprimanded with severity for exceeding the bounds of his commission. He had the courage to defend himself. His commission, he said, was founded in the word of God, positive law, and natural reason ; and upon these topics he was about to prove that the marriage must be universally foul and odious, when the earl of Bothwel commanded him to be silent.

The privy council, struck with the vigor of the man, and apprehensive of the public discontents, did not dare to inflict any punishment upon him; and this victory over Bothwel, while it heightened all the suspicions against him, served to encourage the enemies of the queen, and to undermine the respect of her subjects. Mary, before she gave her hand to Bothwel, created him duke of Orkney. The ceremony was performed in a private manner, after the rules of the popish church; but, to gratify the people, it was likewise solemnised publicly according to the Protestant rites by Adam Bothwel bishop of Orkney, who had renounced the episcopal order for the Presbyterian. It was celebrated with little pomp. Many of the nobles had retired to their seats in the country; and those who attended were thoughtful and sad. Du Croc, the French ambassador, sensible that the match would be displeasing to his court, refused to give his countenance to the solemnity. There were no acclamations of the people. Mary herself was not unconscious of the imprudence of the measure, and looked back with surprise and sorrow to the train of circumstances which had conducted her to this fatal event. Forsaken by her nobles, and imprisoned at Dunbar, she was in so perilous a situation that no remedy could save her honor but death. Her marriage was the immediate and necessary consequence of that situation. Melvil vindicates her on this principle, and even lord Hailes apologises for her by observing that 'after Mary had remained a fortnight under the power of a daring profligate adventurer, few foreign princes would have solicited her hand.' But, after making every allowance for her situation and circumstances, it was a most imprudent step, and the most unjustifiable action of her whole life. It was indeed the point for which her enemies had labored with a wicked and relentless policy.

Mary was unfortunate in her second marriage, but much more so in her third. Bothwel had neither talents for business nor affection for his wife. Ambitious to the last degree, he sought only to establish himself in power, while his fears and jealousies made him take the most improper means. The marriage had already thrown the nation into a ferment; and the least improper exercise of power, or indeed an appearance of it, would be sufficient to ruin them both for ever. Perhaps the only thing which at this juncture could have pacified the people, would have been the total abolition of popery, which they had often required. But this was not thought of. Instead of taking any step to please the people, Bothwel endeavoured to force the earl of Mar to deliver up the young prince to his custody. This was sufficient to make the flame, which had hitherto been smothered, break out with all its violence. It was universally believed that Bothwel, who had murdered the father, designed to kill the son also, and the queen was thought to participate in all his crimes. The earl of Murray now took advantage of the queen's unfortunate situation to aggrandise himself. After having visited the English court, he proceeded to France, where he assiduously disseminated all the reports against

the queen which were injurious to her reputation; and where, without being exposed to suspicion, he was able to maintain a close correspondence with his friends Morton and Lethington, and to inspire their machinations. His associates, true to his ambition and their own, had promoted all the schemes of Bothwel upon the queen with a power and influence which had insured their success. In confederacy with the earl of Murray himself, they had conspired with him to murder the king. Assisted with the weight of the earl of Murray they had managed his trial, and operated the verdict which acquitted him. By the same arts, and with the same views, they had joined with him to procure the bond of the nobles, recommending him to the queen as a husband, asserting his integrity and innocence, recounting his noble qualities, and expressing an unalterable resolution to support the marriage against every opposer and adversary, and recording a wish that a defection of its objects should be branded with everlasting ignominy. When the end, however, was accomplished for which they had been so zealous, and when the marriage of the queen was actually celebrated, they were in haste to entitle themselves to the ignominy which they had imprecated. The murder of the king, the guilt of Bothwel, his acquittal, his divorce, and his marriage, became the topics of their complaints and declamation. Upon the foundation of this hated marriage, they ventured to infer the privy of the queen to all his iniquity and transactions; and this step seemed doubtless, to the mass of her own subjects, and to more distant observers, a strong confirmation of all the former suspicions which had been circulated with so much artifice. Their imputations and devices excited against her, both at home and abroad, the most indignant and humiliating odium; and, amidst the ruins of her fame, they thought to bury for ever her tranquillity and peace. But, while this cabal were prosecuting their private ends, several noblemen, not less remarkable for their virtue than their rank, were eager to vindicate the national integrity and honor. The earl of Athol, upon the king's murder, had retired from the court, and was waiting for a proper season to take revenge upon the regicides. The earl of Mar, uneasy under the charge of the young prince, was solicitous to make himself strong, that he might guard him from injury. Motives so patriotic and honorable drew applause and partizans. An association was insensibly formed to punish the murderers of the king, and to protect the person of the prince. Morton and Lethington encouraged and promoted this combination. A convention was appointed at Stirling, for consulting upon the measures expedient to be pursued. They agreed to take an early opportunity to appear in the field; and, when they separated, it was to collect their retainers, and to inspire their passions. Of this confederacy, the leading men were the earls of Argyle, Athol, Morton, Mar, and Glencairn; the lords Hume, Semple, and Lindsay; the barons Kirkaldy of Grange, Murray of Tullibardin, and Maitland of Lethington. The earl of Bothwel was sensible that if he was to sit upon the throne he must wade to it through

blood. By his advice, two proclamations were issued in the name of the queen, under the pretence of suppressing insurrections and depredations upon the borders. By the former she called together in arms, upon an early day, the earls, barons, and freeholders of the districts of Forfar and Perth, Strathern, and Monteith, Clackmannan, Kinross, and Fife. By the latter she charged the greater and lesser baronage, with all the inferior proprietors of the shires of Linlithgow, Edinburgh, Haddington, and Berwick, to prepare immediately for war, and to keep themselves in readiness to march upon her order. These military preparations added to the public discontents. The rumors against the queen were violent and loud. It was said that she meant to overturn the constitution and the laws; that she had been careless of the health of her son, and was altogether indifferent about his preservation; that she had separated herself from the councils and assistance of her nobles; and that she wished to make her will the only rule of her government. Agitated with the hazardous state of her affairs she published a new proclamation, in which she employed herself to refute these accusations; and in which she took the opportunity to express, in a very forcible manner, not only her attachment to her people and the laws, but the fond affection that she bore to the prince, whom she considered as the chief joy of her life, and without whom all her days would be comfortless. The declarations of the queen were disregarded. The nobles abounding in vassals, and having the hearts of the people, were soon in a situation to take the field. They were advancing to the capital. The royal army was not yet assembled; and the queen and Bothwel suspected that the castle of Edinburgh would shut its gates upon them. The fidelity of Sir James Balfour, the deputy governor, had been staggered by the practices of the earl of Mar and Sir James Melville. Mary left her palace of Holyrood House, and was conducted to Borthwick Castle. The associated lords, informed of her flight, took the road to this fortress, with 2000 horse. Lord Hume, by a rapid march, presented himself before it with the division under his command; but, being unable to guard all its avenues, the queen and Bothwel effected their escape to Dunbar, where the strength of the fortifications gave them a full security against a surprise. Upon this second disappointment, the nobles resolved to enter Edinburgh, and to augment their strength by new partizans. The earl of Huntly and lord Boyd were here on the side of the queen, with the archbishop of St. Andrews, the bishop of Ross, and the abbot of Kilwinning. They endeavoured to animate the inhabitants to defend their town and the cause of their sovereign. But the tide of popularity was favorable to the confederate lords. The magistrates ordered the gates of the city to be shut; but no farther resistance was intended. The lords, forcing St. Mary's port, found an easy admittance, and took possession of the capital. The earl of Huntly and the queen's friends fled to the castle to Sir James Balfour, who had been the confidant of Bothwel, and who agreed to protect them, although he was

now concluding a treaty with the insurgents. The associated lords now formed themselves into a council, and circulated a proclamation. By this paper they declared that the queen, being detained in captivity, was neither able to govern her realm, nor to command a proper trial to be taken of the king's murder. In an emergency so pressing they had not despaired of their country, but were determined to deliver the queen from bondage, to protect the person of the prince, to revenge the murder of the king, and to vindicate the nation from the infamy it had hitherto suffered through the impunity of the regicides. They therefore commanded all the subjects of Scotland whatsoever, and the burgesses and inhabitants of Edinburgh in particular, to take a part with them, and to join in the advancement of purposes so beneficial and salutary. Next day they issued another proclamation in terms still stronger. They expressed their persuasion of Bothwel's guilt in the rape and seduction of the queen, and in the king's murder, to accomplish his marriage; and of his design to murder the young prince, and that he was collecting troops with this view. Addressing themselves, therefore, to all the subjects of the realm, whether they resided in counties or in boroughs, they invited them to come forward to their standard; and threatened all who should disobey them that they should be treated as enemies and traitors. Bothwel in the mean time was not inactive; the proclamations of the queen had brought many to her assistance; 4000 combatants ranged themselves on her side, and Bothwel was impatient to put his fortunes to the issue of a battle. He left the strong castle of Dunbar, where the nobles were not prepared to assail him, and where he might have remained in safety till they dispersed themselves; for their proclamations were not so successful as they had expected; their provisions and stores were scanty; and the zeal of the people, unsupported by prosperity, would soon have abated. Imprudent precipitation served them in a most effectual manner. When the queen had reached Gladsmuir, she ordered a manifesto to be read to her army, and to be circulated among her subjects. By this paper she replied to the proclamations of the confederated nobles, and charged them with treachery and rebellion. She treated their reasons of hostility as mere pretence. As to the king's murder, she protested that she herself was fully determined to revenge it, if she could be so fortunate as to discover its perpetrators. With regard to the bondage from which they were so desirous to relieve her, she observed that it was a falsehood so notorious that the simplest of her subjects could confute it; for her marriage had been celebrated in a public manner, and the nobles could hardly have forgotten that they had subscribed a bond recommending Bothwel to be her husband. With regard to the industrious defamations of this nobleman, it was urged that he had discovered the utmost solicitude to establish his innocence. He had invited a scrutiny into his guilt; the justice of his country had absolved him; the three estates assembled in parliament were satisfied with the proceedings of his judges and jury;

and he had offered to maintain his quarrel against any person whatsoever who was equal to him in rank, and of an honest reputation. The nobles, she said, to give a fair appearance to their treason, pretended that Bothwel had schemed the destruction of the prince, and that they were in arms to protect him. The prince, however, was actually in their own custody; the use they made of him was that of a screen to their perfidiousness; and the real purposes with which they were animated were the overthrow of her greatness, the ruin of her posterity, and the usurpation of the royal authority. She therefore entreated the aid of her faithful subjects; and, as the prize of their valorous services she held out to them the estates and possessions of the rebels.

The associated nobles, pleased at the approach of the queen, put themselves in motion. In Edinburgh they had gathered an addition to their force; and the Scottish officer who commanded the companies which the king of Denmark was permitted to enlist in Scotland had been gained to assist them. He had just completed his levies, and he turned them against the queen. The nobles, after advancing to Musselburgh, refreshed their troops. Intelligence was brought that the queen was upon her march. The two armies were nearly equal in numbers; but the preference, in point of valor and discipline, belonged decisively to the soldiers of the nobles. The queen posted herself on the top of Carberry hill. The lords, taking a circuit, seemed to be retreating to Dalkeith, but, wheeling about, they approached to give her battle. They were ranged in two divisions. The one was commanded by the earl of Morton and the lord Hume; the other was directed by the earls of Athol, Mar, and Glencairn, with the lords Lindsay, Ruthven, Semple, and Sanquhar. Bothwel was the leader of the royal forces; and there served under him the lords Seton, Yester, and Borthwick. It was not without apprehensions that Mary surveyed the formidable appearance of her enemies. Du Croc, the French ambassador, hastened to interpose his good offices, and to attempt an accommodation. He assured the nobles of the peaceful inclination of the queen; and that the generosity of her nature disposed her not only to forgive their present insurrections, but to forget all their former transgressions. The earl of Morton informed him that they had not armed themselves against the queen, but against the murderer of the late king; and that if she would surrender him up to them, or command him to leave her, they would return to their duty. This language confounded Du Croc. He conceived that all negotiation was fruitless, and withdrew. Mary was full of perturbation and distress. It was with infinite regret that she considered the consequences of her situation at Dunbar. Nor had his behaviour since her marriage contributed to allay her inquietudes. The violence of his passions, his suspicions, and his guilt, had induced him to surround her with his creatures, and to treat her with insult and indignity. She had been almost constantly in tears. His demeanor, which was generally rude and indecent, was often so

savage and brutal that she sometimes was tempted to commit suicide. Upon his account she was now encompassed with dangers. Her crown was in hazard. Under unhappy agitations, she rode through the ranks of her army, and found her soldiers dispirited. Whatever respect they might entertain for her, they had none for her husband. His own dependents only were willing to fight for him. He endeavoured to awaken the royal army to valor, by throwing down the gauntlet of defiance against any of his adversaries who should dare to encounter him. His challenge was instantly accepted by Kirkaldy of Grange, and by Murray of Tullibardin. He objected that they were not peers. The lord Lindsey discovered the greatest impatience to engage him, and his offer was admitted; but the queen prohibited the combat. All the pride and hopes of Bothwel sunk within him. His soldiers, in small parties, were secretly abandoning their standards. It was equally perilous to the queen to fight or to fly. The most prudent expedient for her was to capitulate. She desired to confer with Kirkaldy of Grange, who remonstrated to her against the guilt and wickedness of Bothwel, and counselled her to abandon him. She expressed her willingness to dismiss him upon the condition that the lords would acknowledge their allegiance and continue in it. Kirkaldy passed it to the nobles, and received their authority to assure her that they would honor, serve, and obey her as their princess and sovereign. He communicated this intelligence to her. She advised Bothwel to provide for his safety by flight; and Kirkaldy admonished him not to neglect this opportunity of effecting his escape. Overwhelmed with shame, disappointment, terror, remorse, and despair, this miserable victim of ambition and guilt turned his eyes to her for the last time. To Kirkaldy of Grange the queen stretched out her hand; he kissed it; and, taking hold of the bridle of her horse, conducted her towards the nobles. They were approaching her with becoming reverence, when she addressed herself to them thus:—'I am come, my lords, to express my respect, and to conclude our agreement; I am ready to be instructed by the wisdom of your councils; and I am confident that you will treat me as your sovereign.' The earl of Morton, in the name of the confederacy, addressed her in these words:—'Madam, you are among us in your proper place; and we will pay to you as much honor, service, and obedience, as ever in any former period was offered by the nobility to the princes your predecessors.'

This gleam of sunshine was soon overcast. She remained not many hours in the camp, till the common soldiers, instigated by her enemies, presumed to insult her with the most unseemly reproaches. They exclaimed indignantly against her as the murderer of her husband, and reviled her as a lewd adulteress, and in language the most coarse and opprobrious. The nobility forgot their promises, and seemed to have neither honor nor humanity. She had changed one miserable scene for a distress that was deeper and more hopeless. They surrounded her with guards, and conducted her to her capital. She

was carried along its streets, and shown to her people in captivity and sadness. She cried out to them to commiserate and protect her. They withheld their pity, and afforded her no protection. Even new insults were offered to her. The lowest of the populace, whom the declamations of the clergy had driven into rage and madness, vied with the soldiery in the licentious outrage of invective and execration. She besought Maitland to solicit the lords to repress the insupportable atrocity of her treatment. She conjured him to let them know that she would submit herself implicitly to the determination of the parliament. Her intreaties and her sufferings made no impression upon the nobles. They continued the savage cruelty of their demeanor. She implored, as the last request she would prefer to them, that they would lead her to her palace. This consolation, too, was refused to her. They wished to accustom her subjects to behold her in disgrace, and to teach them to triumph over her misfortunes. In the most mortifying and afflicting hour she had ever experienced, oppressed with fatigue, and disfigured with dust and sorrow, they shut her up in the house of the lord provost: leaving her to revolve in her anxious and agitated mind the indignities she had already endured, and to suffer in anticipation the calamities they might yet inflict upon her. The malice of Morton and his adherents was still far from being gratified. In the morning, when the queen looked from the window of the apartment to which she had been confined, she perceived a white banner displayed in such a manner as to fix her attention. There was delineated upon it the body of the late king stretched at the foot of a tree, and the prince upon his knees before it, with a label from his mouth, containing this prayer, 'Judge and revenge my cause, O Lord!' This abominable banner revived all the bitterness of her afflictions. The curiosity of the people drew them to a scene so new and so affecting. She exclaimed against the treachery of her nobles; and she begged the spectators to relieve her from their tyranny. The eventful story of the preceding day had thrown her capital into a ferment. The citizens of a better condition crowded to behold the degraded majesty of their sovereign. Her state of humiliation, so opposite to the grandeur from which she had fallen, moved them with compassion and sympathy. They heard her tale, and were filled with indignation. Her lamentations, her disorder, her beauty, all stimulated their ardor for her deliverance. It was announced to the nobles that the tide of popular favor had turned towards the queen. They hastened to appear before her, and to assure her, with smiles and courtesy, that they were immediately to conduct her to her palace, and to reinstate her in her royalty. Imposing upon her credulous nature, and that beautiful humanity which characterised her even in the most melancholy situations of her life, they prevailed with her to inform the people that she was pacified, and that she wished them to disperse themselves. They separated in obedience to her desire. The nobles now conveyed her to Holyrood House. But nothing could

be farther from their intentions than her re-establishment in liberty and grandeur. They held a council, in which they deliberated concerning the manner in which they ought to dispose of her. It was resolved that she should be confined during her life in the fortress of Lochleven; and they subscribed an order for her commitment. A resolution so sudden, so perfidious, and so tyrannical, filled Mary with the utmost astonishment, and drew from her the most bitter complaints and exclamations. Kirkaldy of Grange, perceiving with surprise the lengths to which the nobles had proceeded, felt his honor alarmed for the part he had acted at their desire. He expostulated with them upon their breach of trust, and censured the extreme rigor of the queen's treatment. They counselled him to rely upon the integrity of their motives; spoke of her passion for Bothwell as most vehement, and insisted on the danger of intrusting her with power. He was not convinced by their speeches; and earnestly recommended lenient and moderate measures. They assured him that when it appeared that she detested Bothwell, and had utterly abandoned his interests, they would think of kindness and moderation. But this, they urged, could hardly be expected; for they had recently intercepted a letter from her to this nobleman, in which she expressed, in the strongest terms, the warmth of her love, and her fixed purpose never to forsake him. This letter is such a palpable forgery that Mr. Hume himself gives it up.

Kirkaldy was desired to peruse this letter; and he pressed them no longer with his remonstrances. The queen sent a message to this generous soldier, complaining of the cruelty of her nobles, and reminding him that they had violated their engagements. He instantly addressed an answer to it, recounting the reproaches he had made to them; stating his advice, describing the surprise with which he had read her intercepted letter; and conjuring her to renounce and forget a most wicked and flagitious man, and, by this victory over herself, to gain the love and respect of her subjects. The forgery of a letter from her to Bothwell completed the amazement of the queen. So unprincipled a contempt of every thing that is most sacred, so barbarous a perseverance in perfidiousness and injustice, extinguished every sentiment of hope in her bosom. She conceived that she was doomed to inevitable destruction, and sunk under a pang of unutterable anguish. The lords Ruthven and Lindsay arrived, in this paroxysm of her distress, to inform her that they were commanded to put in execution the order for her commitment. They charged her women to take from her all her ornaments and her royal attire. A mean dress was put upon her; and in this disguise they conveyed her with precipitation to the prison appointed for her. The lords Seton, Yester, and Borthwick, endeavoured to rescue her, but failed in the attempt. She was delivered over to William Douglas the governor of the castle of Lochleven, who had married the mother of the earl of Murray, and was himself nearly related to the earl of Morton. See MARY. Upon the same day on which the nobles subscribed

the order for the imprisonment of the queen, they entered into a bond of confederacy, by which they bound themselves into a body for the strenuous prosecution of their quarrel. They engaged to punish the murderers of the king, to examine into the queen's rape, to dissolve her marriage, to preserve her from the bondage of Bothwel, to protect the person of the prince, and restore justice to the realm. An oath confirmed their reliance upon one another; and, in advancing their measures, they engaged to expose and employ their lives, kindred, and fortunes. But, notwithstanding all the pretended patriotism of the rebels, nothing was further from their intentions than to prosecute Bothwel and restore the queen to her dignity. They had already treated her in the vilest manner, and allowed Bothwel to escape, when they might easily have apprehended and brought him to trial. To exalt themselves was their only aim. Eleven days after the capitulation at Carberry Hill, they held a convention, in which they very properly assumed the name of lords of the secret council, and called a proclamation for apprehending Bothwel as the murderer of the king; offering a reward of 1000 crowns to any person who should bring him to Edinburgh. A search had been made for the murderers of the king that very night in which the queen was confined in Lochleven castle. One Sebastian a Frenchman, and captain Blackader, were then apprehended; and soon after James Edmondstone, John Blackader, and Mynart Fraser, were taken up and imprisoned. The people expected full and satisfactory proofs of the guilt of Bothwel, but were disappointed. The affirmation of the nobles that they were possessed of evidence which could condemn him, appeared to be no better than a pretence. Sebastian escaped; the other persons were put to the torture, and sustained it without making any confession that the nobles could publish. They were condemned, however, and executed, as being concerned in the murder. In their dying moments they protested their innocence. A sanguine hope was entertained that captain Blackader would reveal the whole secret at the place of execution, and a vast multitude of spectators were present. No information, however, could be derived from what he said with regard to the regicides; but, while he solemnly protested that his life was unjustly taken away, he averred it as his belief that the earls of Murray and Morton were the contrivers of the king's murder. The lords of the secret council now proceeded to the greatest enormities. They robbed the palace of Holyrood House of its furniture and decorations; converted the queen's plate into coin; and possessed themselves of her jewels, which were of great value; and, while the faction committed these acts of robbery, the earl of Glencairn with solemn hypocrisy demolished the altar in the queen's chapel, and defaced and destroyed all its pictures and ornaments. These excessive outrages, however, lost them the favor of the people, and an association was formed in favor of the queen. The court of France, as soon as the news of Mary's imprisonment arrived, despatched M. de Villeroy to condole with

her upon her misfortunes: but the lords of the secret council would not admit him to see her. The earl of Murray was at this time in France; and to the promises of this treacherous wretch the king trusted, imagining him to be a steady friend to the unfortunate queen. Elizabeth also pretended friendship, and threatened the associated lords; but, as they knew her insincerity, they paid no regard to her threats, and even refused to admit her ambassador to Mary's presence. From all these appearances of friendship, Mary derived no real assistance. On the 24th of July, 1567, lord Lindsay, whose imperious behaviour, says Dr. Stuart, approached to infamy, was ordered by the lords to wait upon the queen at Lochleven. He carried with him three deeds or instruments, and was ordered to compel her to subscribe them. By the first she was to resign her crown to her infant son; by the second she appointed the earl of Murray regent of Scotland; and, by the third, she constituted a council to direct the prince till this nobleman should arrive in Scotland, or in the event of his death or refusal of the office. On the part of the queen all resistance was vain. Sir Robert Melvil assured her that what she did by compulsion, and in a prison, could not bind her; as did also Throgmorton, the English ambassador, in a letter which Sir Robert Melvil brought in the scabbard of his sword. Mary, therefore, forlorn and helpless, could not resist the barbarous rudeness with which Lindsay pressed the subscription of the papers, though she would not read them. Five days after, the lords of the secret council met at Stirling, for the coronation of the young prince. A protestation was made, in the name of the duke of Chatelherault, that this solemnity should neither prejudice his rights of succession, nor those of the other princes of the blood. The young prince being presented to them, the lords Lindsay and Ruthven appeared, and in the name of the queen renounced in his favor her right and title to the crown, gave up the papers they had forced her to subscribe, and surrendered the sword, sceptre, and royal crown. After the papers were read, the earls of Morton, Athol, Glencairn, Mar, and Monteith, with the master of Graham, the lord Hume, and Bothwel, bishop of Orkney, received the queen's resignation in favor of her son in the name of the three estates. After this formality, the earl of Morton, bending his body, and laying his hand upon the Scriptures, took the coronation oath for the prince, engaging that he should rule according to the laws, and root out all heretics and enemies to the word of God. Adam Bothwel then anointed the prince king of Scotland, delivered to him the sword, and sceptre, and put the crown upon his head. In the procession to the castle from the church, where the inauguration was performed, and where John Knox preached the inauguration sermon, the earl of Athol carried the crown, Morton the sceptre, Glencairn the sword, and the earl of Mar carried the prince in his arms. The solemnities received no countenance from Elizabeth; and Throgmorton, by her express command, was not present at them.

Soon after this ceremony the earl of Murray returned from France; and his presence gave

such strength to his faction that very little opposition could be given by the partisans of Mary, who were desponding for want of a leader. A little time after his arrival, this monstrous hypocrite and traitor waited upon his distressed and insulted sovereign at Lochleven. His design was to get her to desire him to accept of the regency, which he otherwise pretended to decline. The queen, unsuspecting of the deepness of his arts, conscious of the gratitude he owed to her, and trusting to his natural affection, and their tie of a common father, received him with a tender welcome. She was in haste to pour forth her soul to him; and with tears and lamentations related her condition and her sufferings. He heard her with attention; and turned occasionally his discourse to the topics which might lead her to open to him her mind without disguise, in those situations in which he was most anxious to observe it; but her distress awakened not his tenderness. He seemed to be in suspense; and from the guardedness of his conversation she could gather neither hope nor fear. She begged him to be free with her, as he was her only friend. He yielded to her entreaties as if with pain and reluctance; and, taking a comprehensive survey of her conduct, described it with all the severity that could affect her most. He could discover no apology for her misgovernment and disorders; and, with a mortifying plainness, he pressed upon her conscience and her honor. At times she wept bitterly. Some errors she confessed; and against calumnies she warmly vindicated herself. But all she could urge in her behalf made no impression upon him; and he spoke to her of the mercy of God as her chief refuge. She was torn with apprehensions, and nearly distracted with despair. He dropped some words of consolation; and, after expressing an attachment to her interests, gave her his promise to employ all his consequence to secure her life. As to her liberty, he told her that to achieve it was beyond all his efforts; and that it was not good for her to desire it. Starting from her seat, she took him in her arms, and, kissing him as her deliverer from the scaffold, solicited his immediate acceptance of the regency. He declared that he had many reasons to refuse the regency. She conjured him not to abandon her in the extremity of her wretchedness. There was no other method, she said, by which she herself could be saved, her son protected, and her realm rightly governed. He gave way to her anxiety and solicitations. She besought him to make the most unbounded use of her name and authority, desired him to keep for her the jewels that yet remained with her, and recommended it to him to get an early possession of all the forts of her kingdom. He now took his leave of her, and, embracing anew this pious traitor, she sent her blessing with him to the prince her son. In the mean time the wretched earl of Bothwell was struggling with the greatest difficulties. Sir William Murray and Kirkaldy of Grange had put to sea in search of him. He had been obliged to exercise piracy for subsistence to himself and his followers. His pursuers came upon him unexpectedly at the Orkney Islands, and took three of his ships, but

he himself escaped. Soon after, having seized a Turkish trader on the coast of Norway, two ships of war belonging to the king of Denmark gave chase to him as a pirate. An engagement ensued, in which Bothwell was taken. His officers and mariners were hanged in Denmark, but Bothwell himself, being known by some Scottish merchants, had his life spared. He was thrown, however, into a dungeon, where he remained ten years; and at last died melancholy and distracted. The regent sent commissioners to the king of Denmark to demand him as a prisoner; but that prince, considering Murray as a traitor and usurper, totally disregarded his request. The dreadful fate of Bothwell did not make any alteration in the situation of the queen. Her enemies, bent on calumniating her, produced letters, which they said were written and sent by her to that licentious nobleman during the life of the king. These letters are now universally admitted to have been forged by the rebels themselves, who practised likewise upon some servants of Bothwell to accuse the queen of the murder of her husband. The letters for some time gained credit; but the confessions of the servants were all in her favor. When on the scaffold, they addressed themselves to the people; and, after having solemnly declared the innocence of the queen, they protested before God and his angels that the earl of Bothwell had informed them that the earls of Murray and Morton were the contrivers of the king's murder. It was impossible that such transactions as these could advance the popularity of the regent. His unbounded ambition and cruelty to his sovereign began at last to open the eyes of the nation; and a party was forming itself in favor of the queen. She herself had been often meditating her escape; and she at last effected it by means of a young gentleman, George Douglas, brother to her keeper, who had fallen in love with her. On the second day of May 1568, about 7 P. M. when the keeper was at supper with his family, George Douglas, possessing himself of the keys of the castle, hastened to her apartment, and conducted her out of prison. Having locked the gates of the castle, they immediately entered a boat which waited for them; and, being rowed across the lake, lord Seton received the queen with a chosen band of horsemen in complete armour. That night he conveyed her to his house of Niddrie in West Lothian; where having rested a few hours, she set out for Hamilton.

The escape of the queen threw her enemies into the greatest consternation. Many forsook the regent openly, and still more made their submissions privately, or concealed themselves. He did not, however, despond; but resolved to defend himself by force of arms. The queen soon found herself at the head of 6000 men, and the regent opposed her with 4000. Mary, however, did not think it proper to risk a battle; but in this prudent resolution she was over-ruled by the impetuosity of her troops. A battle was fought on the 13th of May 1568, at Langside, near Glasgow; in which Mary's army was defeated, and her last hopes blasted. The unfortunate queen fled towards Kirkcudbright, where she deliberated on the plan she should afterwards

follow. The result of her deliberations was to take the worst step possible. Notwithstanding all the perfidy which she had found in Elizabeth, Mary could not think that she would now refuse to afford her a refuge in her dominions; and therefore determined to retire into England. To this she had been solicited by Elizabeth herself during her confinement in Lochleven castle; and she now resolved, in opposition to the advice of her most faithful counsellors, to make the fatal experiment. In obedience to her order, the lord Herries addressed a letter to Mr. Lauder, the deputy-commander at Carlisle; and, after detailing her defeat at Langside, desired to know if she might trust herself upon English ground. This officer wrote instantly an answer, that lord Scroop the warden of the frontier being absent, he could not give a formal assurance in a matter which concerned the state of a queen; but that he would send by post to his court to know the pleasure of his sovereign; and that, if in the mean time any necessity should force Mary to Carlisle, he would receive her with joy, and protect her against her enemies. Mary, however, before the messenger returned, had embarked in a fishing boat with sixteen attendants. In a few hours she landed at Workington in Cumberland, and thence proceeded to Cockermouth, where she continued till Mr. Lauder, having assembled the gentlemen of the country, conducted her with the greatest respect to the castle of Carlisle. To Elizabeth she announced her arrival in a despatch, which described her late misfortunes in general and pathetic terms, and in which she expressed an earnest solicitude to pay her a visit at her court, and the deep sense she entertained of her friendship and generosity. The queen of England, by obliging and polite letters, condoled with her upon her situation, and gave her assurances of all the favor and protection that were due to the justice of her cause. But, as they were not accompanied with an invitation to London, Mary took the alarm. She thought it expedient to instruct lord Fleming to repair to France; and she entrusted lord Herries with a most pressing remonstrance to Elizabeth. Her anxiety for an interview to vindicate her conduct, her ability to do so in the most satisfactory manner, and her power to explain the ingratitude, the crimes, and the perfidy of her enemies, were urged to this princess. A delay in the state of her affairs was represented as nearly equivalent to absolute destruction. An immediate proof was therefore requested from Elizabeth of the sincerity of her professions. If she was unwilling to admit into her presence a queen, a relation, and a friend, she was reminded, that, as Mary's entrance into her dominions had been voluntary, her departure ought to be equally free and unrestrained. She valued the protection of the queen of England above that of every other potentate upon earth; but, if it could not be granted, she would solicit the amity, and implore the aid of powers who would commiserate her afflictions, and be forward to relieve them. Mary likewise gave thanks to Elizabeth for the courtesy with which she had hitherto been treated in the castle of Carlisle. She also begged of her to avert the cruelty of the regent from

her adherents, and to engage him not to waste her kingdom with hostility and ravages; and she paid her compliments in an affectionate letter to secretary Cecil, and asked his kind offices in extricating her from her difficulties. But the queen of England was not to be moved by remonstrances. The offer of Mary to plead her cause before her, and to satisfy all her scruples, was rejected. Her disasters were rather a matter of exultation than of pity. The deliberations of the English queen, and those of her statesman, were not directed by maxims of equity, compassion, or generosity. They considered the flight of Mary into England as an incident that was fortunate for them; and they were solicitous to adopt those measures which would enable them to draw from it the greatest advantage. They considered all the possible consequences of liberating her, of restoring her to her throne, and of allowing her to remain at liberty in England; and how they might affect Scotland, England, Ireland, and the cause of the Reformation; and upon the whole concluded that it was by far the wisest expedient to keep the queen of Scots in confinement, to invent methods to augment her distress, to give countenance to the regent, and to hold her kingdom in dependence and subjection. In consequence of this cruel and unjust resolution Mary was acquainted that she could not be admitted into Elizabeth's presence till she had cleared herself of the crimes imputed to her; she was warned not to think of introducing French troops into Scotland; and it was hinted that for the more security she ought to be removed farther from the frontier. This message showed Mary the imprudence of her conduct in trusting herself to Elizabeth; but the error could not now be remedied. She was watched to prevent her escape, and all her remonstrances were vain. The earl of Murray had offered to accuse her; and it was at last concluded that Elizabeth could not, consistently with her own honor and the tranquillity of her government, suffer the queen of Scots to come into her presence, to depart out of England, or to be restored to her dignity, till her cause should be tried and decided. An order was given to remove her from Carlisle castle to a place of strength at a greater distance from the borders, to confine her more closely, and to guard against all possibility of an escape.

In consequence of these extraordinary transactions a trial took place, perhaps the most remarkable for its injustice of any recorded in history. Mary, confined and apprehensive, submitted to be tried. The regent, who was to be the accuser, was summoned into England, and commissioners were appointed on both sides. On the 4th of October the commissioners met at York; and, four days after, the deputies of the queen of Scots were called to make known their complaints. They related the most material circumstances of the cruel usage she had received. Their accusations were an alarming introduction to the business in which the regent had embarked; and, notwithstanding the encouragement shown to him by Elizabeth, he was assaulted by apprehensions. The artifices of Maitland added to his alarms. Instead of proceeding instantly to

defend himself, or to accuse the queen, he sought permission to relate his doubts and scruples to the English commissioners. In his own name, and with the concurrence of his associates, he demanded to know whether they had sufficient authority from Elizabeth to pronounce, in the case of the murder, Guilty or Not guilty, according to the evidence that should be laid before them; whether they would actually exercise this power; whether, in the event of her criminality, their sovereign should be delivered to him and his friends, or detained in England in such a way as that no danger should ensue from her activity; and whether, upon her conviction, the queen of England would allow his proceedings, and those of his party, to be proper, maintain the government of the young king, and support him in the regency, in the terms of the act of parliament which had confirmed him in that office. To these requisitions it was answered, upon the part of the English deputies, that their commission was so ample that they could enter into and proceed with the controversy; and that the sovereign would not restore the queen of Scots to her crown, if satisfactory proofs of her crime should be produced; but that they knew not in what manner she would finally conduct herself as to her person and punishment. With regard to the sovereignty of the prince, and the regency of the earl of Murray, these might be canvassed in a future period. These replies did not please the regent and his associates; and they requested the English commissioners to transmit their doubts and scruples to be examined and answered by Elizabeth. But, while the regent discovered in this manner his apprehensions, he yet affirmed that he was able to answer the charges imputed to him and his faction; and, this being in a great measure a distinct matter from the controversy of the murder, he was desired to proceed in it. He pretended that Bothwell, who had the chief concern in the murder of lord Darnley, possessed such credit with the queen, that, within three months after that horrible event, he seized her person and led her captive to Dunbar, obtained a divorce from his wife, and married her: that the nobility, being moved with his crimes, did confederate to punish him, to relieve her from the tyranny of a man who had ravished her, and who could not be her husband, and to preserve the life of the prince: that, having taken arms for these purposes, the earl marched against them; but that, proposing to decide the quarrel by single combat, his challenge was accepted: that he declined, notwithstanding, to enter the lists, and fled: that the queen, preferring his impunity to her own honor, favored his escape by going over to the nobility: that they conducted her to Edinburgh, where they informed her of the motives of their proceedings, requested her to take the proper steps against him and the other regicides, and entreated her to dissolve her marriage, to take care of her son, and to consult the tranquillity of her realm: that this treatment being offensive to her she menaced them with vengeance, and offered to surrender her crown, if they would permit her to possess the murderer of her husband; that her inflexible mind, and the necessities of the

state, compelled them to keep her at a distance from him, and out of the way of a communication with his adherents: that during her confinement, finding herself appointed with the troubles of royalty, and unfit for them from vexation of spirit and the weakness of her body and intellect, she freely, and of her own will, resigned her crown to her son, and constituted the earl of Murray the regency; that the king accordingly had been crowned, and Murray admitted to the regency; that, the sanction of the three estates assembled in parliament having confirmed these appointments, a universal obedience of the people had ensued, and a steady administration of justice had taken place: that certain persons, however, envious of the public order and peace, had brought her out of prison, and had engaged to subvert the government; that they had been disappointed in their wicked attempts; and that it was most just and equitable that the king and the regent should be supported in power, in opposition to a rebellious and turbulent faction.

This apology, so imperfect, so impudent, and so irreconcilable with facts, received a complete confutation from the deputies of the queen of Scots. To take arms against her because Bothwell had her favor was, they said, a lame justification of the earl of Murray and his friends; since it had never been properly manifested to her that he was the murderer of her husband. He had indeed been suspected of this crime; but had been tried by his peers, and acquitted. His acquittal had been ratified in parliament, and had obtained the express approbation of the party who were now so loud in accusing him, and who had conspired against her authority. These rebels had even urged her to accomplish her marriage with him, had recommended him as the fittest person to govern the realm, and had subscribed a bond asserting his innocence, and binding themselves to challenge and punish all his adversaries and opponents. They had never, either before or after the marriage, advertised the queen of his guilt, till, having experience of their strength, they secretly took arms, and invested her in Borthwick castle. The first mark of their displeasure was the display of warlike banners. She made her escape to Dunbar; and they, returning to Edinburgh, levied troops, issued proclamations, took the field against her, under the pretence of delivering her from his tyranny, and got possession of her person. She was willing to prevent the effusion of blood, and was very far from preferring his impunity to her honor. Kirkaldy of Grange, in obedience to instructions from them, desired her to cause him to retire, and invited her to pass to them under the promise of being served and obeyed as their sovereign. She consented, and Kirkaldy advised Bothwell to depart, and assured him that no man would pursue him. It was by their own contrivance that he fled; and it was in their power to have taken him; but they showed not the smallest desire to make him their prisoner. He remained, too, for some time in the kingdom, and was unmolested by them; and it was not till he was upon the seas that they affected to go in search of him. When she surrendered herself, in the sight of their army, the earl of Morton ratified the stipulations

of Kirkaldy, made obeisance to her in their names, and promised her all the service and honor which had ever been paid to any of her predecessors. They were not faithful, however, to their engagements. They carried her to Edinburgh, but did not lodge her in her palace. She was committed to the house of a burghess, and treated with the vilest indignities. She indeed broke out into menaces, and threatened them; nor was this a matter either of blame or of wonder. But it was utterly false that she ever made any offer to give away her crown, if she might possess Bothwell. In the midst of her sufferings she had even required them, by secretary Maitland, to specify their complaints, and besought them to allow her to appear in parliament, and to join and assist in seeking a remedy to them from the wisdom of the three estates. This overture, however, so salutary and submissive, they absolutely rejected. They were animated by purposes of ambition, and had not in view a relief from grievances. They forced her from her capital in the night, and imprisoned her in Lochleven; and there they affirm that, being exhausted with the toils of government and the languors of sickness, she, without constraint or solicitation, resigned her crown to her son, and appointed the earl of Murray to be regent during his minority. But the truth could neither be concealed, nor overturned, nor palliated. She was in the vigor of youth, unassailed by maladies, and without any infirmity that could induce her to surrender the government of her kingdom. The earl of Athol and the barons of Tullibardin and Lethington, principal men of their council, sent Sir Robert Melvil to her with a ring and presents, with a recommendation to subscribe whatever papers should be laid before her, as the only means to save her life, and with an assurance that what she did under captivity could not operate any injury to her. Melvil, too, communicated to her an intimation in writing from Sir Nicholas Throgmorton, which gave her the same advice and the same assurance. To Sir Nicholas Throgmorton she sent an answer, informing him that she would follow his counsel; and enjoining him to declare to his mistress her hapless state, and that her resignation of her crown was constrained. Nor did this ambassador neglect her commission; and it was a popular persuasion that Elizabeth would have marched an army to her relief, if she had not been intimidated by the threat of the rebels that the blood of the queen of Scots would be the wages of her soldiers. It was also not to be contradicted that, when lord Lindsay presented to his sovereign the instruments of resignation, he menaced her with a closer prison and a speedy death, if she should refuse to subscribe them. It was under an extreme terror, and with many tears, that she put her name to them. She did not consider them as her deeds; did not read them; and protested that, when she was at liberty, she would disavow subscriptions which had been extorted from her. Even Douglas, the keeper of Lochleven, could not endure to be a witness of the violence employed against her. He departed out of her presence that he might not see her surrender her rights against her will; and he

sought and obtained from her a certificate that he was not accessory to this compulsion and outrage. Nor did it consist with the slightest probability that she would, of her own will and accord, execute a resignation of her royal estate, and retain no provision for her future maintenance. Yet, by these extraordinary deeds, the condition to which she was reduced was most miserable and wretched; for no portion whatever of her revenue was reserved to her, and no security of any kind was granted either for her liberty or her life.

As to the coronation of the prince, it could have no validity, as being founded in a pretended and forced resignation. It was also defective in its form; for there were in Scotland more than 100 earls, bishops, and lords; and of these there did not assist in it more than four earls, six lords, one bishop, and two or three abbots. Protestations, too, were openly made, that nothing transacted at that period should be prejudicial to the queen, her estate, and the blood-royal of Scotland. As to the ratification of the investiture of the young prince, and the regency of the earl of Murray by the estates, this was done in an illegal parliament. The principal nobility, too, objected in this parliament to this ratification. Protestations were made before the lords of the articles, as well as before the three estates, to interrupt and defeat transactions which were in a wild hostility to the constitution and the laws. Neither was it true that the government of the king and the regent was universally obeyed, and administered with equity and approbation; for a great division of the nobility never acknowledged any authority but that of the queen, and never held any courts but in her name; and it was notorious that the administration of the usurpers had been marked and distinguished by enormous cruelties and oppressions. Many honorable families and loyal subjects had been persecuted to ruin, and plundered of their wealth, to gratify the retainers and soldiers who upheld this insolent domination; and murder and bloodshed, theft and rapine, were prevalent to a degree unheard of for many ages. Upon all these accounts it was inferred that Elizabeth ought to support the queen of Scots, to restore her to her crown, and to overthrow the power of a most unnatural and rebellious faction. To these facts the regent did not pretend to make any objection; and, though required by the English commissioners to produce sounder and better reasons for his treatment of the queen, he did not advance any thing in his own behalf. He even allowed the charges of treason and usurpation to be pressed against him, without presuming to answer. This surprising behaviour, which might readily have been construed into an acknowledgment of his guilt, proceeded from some conferences which he had with the duke of Norfolk. This nobleman was a zealous partizan for the succession of Mary to the English crown. He was of opinion that his mistress, while she wished to gratify her animosity and jealousies against the queen of Scots, was secretly resolved, by fixing a stain upon her, to exclude her from the succession, and to involve her son in her disgrace. He was eager to defeat a purpose which he con-

ceived to be not only unjust in itself, but highly detrimental to his country; and he observed with pleasure that Maitland of Lethington was favorable to Mary. To this statesman he expressed his surprise that the regent could think of an attempt so blameable as that of criminating his sovereign. If Mary had really given offence, by mistakes, it yet was not the business of a good subject industriously to hold her out to scorn. Anxious and repeated conferences were held by them; and at length it was formally agreed that the regent should not accuse the queen of Scots; and that the duke in return should protect him in the favor of Elizabeth, and secure him in the possession of his regency. But, while the regent engaged himself in this intrigue with the duke of Norfolk, he was still desirous of gratifying the resentments of Elizabeth, and of advancing his own interests by undermining secretly the reputation of his sovereign. He instructed Maitland, George Buchanan, James Macgill, and John Wood, to go to the duke of Norfolk, the earl of Sussex, and Sir Ralph Sadler, and to communicate to them, as private persons, and not in their character of commissioners, the letters to Bothwell, and the other proofs upon which he affirmed the guilt of the queen of Scots. He desired that they would examine these papers, give their opinion of them to Elizabeth, and inform him whether she judged them sufficient evidences of Mary's concern in the murder of her husband. If this should be her opinion, he testified his own readiness, and that of his associates, to swear that the papers were genuine, and of the hand-writing of the queen. By this operation, he was solicitous to establish his vouchers as incontestable, and as testimonies of record.

The commissioners examined his papers, and heard the comments of Buchanan and his other assistants; but they do not seem to have bestowed credit upon them. They described them, however, to Elizabeth; pointed out the places of them which were strongest against Mary; and allowed that their force and meaning were very great if genuineness could be demonstrated. But of their genuineness they acknowledged that they had no other evidence than stout assertions, and the offer of oaths. The earl of Sussex, in a private despatch to secretary Cecil, does more than insinuate, that he thought Mary would be able to prove the letters palpable forgeries; and, with respect to the murder of the king, he declares in plain terms, that, from all he could learn, Murray and his faction would, upon a judicial trial, be found by 'proofs hardly to be denied,' more criminal in that charge than the queen. Elizabeth and her ministers, upon the receipt of such despatches, did not think it expedient to empower them to adopt a method of proof so palpably suspicious, and in which she could not openly concur, without grossly violating even the appearance of probity. The regent had before attempted to engage her in a direct assurance of the validity of his papers, when he submitted copies of them to her inspection by his secretary, Mr. Wood. His attempt at this juncture was similar. Nor were these the only transactions

which took place during the continuance of the commissioners at York. The inventive genius of Lethington had suggested to him a project, which he communicated in confidence to the bishop of Ross. It received the warm approbation of this ecclesiastic; and they determined to put it to a trial. While they attended the duke of Norfolk to the diversion of hawking, they suggested to him a marriage with the queen of Scots. Her beauty, her accomplishments, and her kingdom, were high allurements, and as he was the greatest subject of England, perhaps of Europe, he seemed not to be unworthy of them. The proposal was very flattering to the admiration he entertained of Mary, to his ambition, and to his patriotism. The more he thought of it, he was the more convinced of its propriety. His access to be informed of the practices of the regent destroyed in him the operations of those slanders by which her enemies were so active to traduce her. In this state of his mind, the lady Scroop, his sister, who resided at Bolton Castle with Mary, completely confirmed his resolution. For from her he learned the orderly carriage and the amiable dispositions of the queen of Scots. He was now impatient to make her the offer of his hand. Elizabeth in the mean time was thrown into confusion by the refusal of the regent to accuse the queen of Scots. To give a positive answer to his doubts and scruples was not consistent with her honor; and yet, without this condescension, she was assured that the Scottish deputies would not exhibit their charge of crimination. Having deceived Mary, therefore, with fair promises, she was active in gaining the regent over to her views, which having done, he consented at last to prefer his accusation against Mary before the commissioners, who now met at Westminster by her command. The charge was expressed in general and presumptive terms. It affirmed that as James, earl of Bothwell, was the chief executor of the murder of king Henry, so the queen was his persuader and counsel in the device; that she was a maintainer and fortifier of this unnatural deed, by stopping the inquisition into it and its punishment, and by taking in marriage the principal regicide; that they had begun to exercise a cruel tyranny in the commonwealth, and had formed a resolution of destroying the innocent prince, and of transferring the crown from the true line of its kings to a bloody murderer, and a godless tyrant; and that the estates of the realm, finding her unworthy to reign, had ordered her to resign the crown; her son to be crowned, and the earl of Murray to be established in the regency. Before this accusation was preferred the earl of Lennox presented himself before the English commissioners; made a lamentable declaration of his griefs, and produced to them the letters which had passed between him and Mary concerning the murder, with a writing which contained a direct affirmation of her guilt. The deputies of Mary were astonished at this accusation, being a violent infringement of a protestation which they had formerly given in, and which had been accepted, namely, that the crown, estate, person, and honor of the queen of Scots, should be guarded against every assault

and injury; yet in all these particulars she was now injured. It was understood that no judicial proceedings should take place against her; yet she was actually arraigned as a criminal, and her deputies were called upon to defend her. They denied, however, the validity of the charge; and, while they fully explained the motives which actuated the earl of Murray and his faction in their proceedings, they imputed to persons among themselves the guilt of the king's murder. They affirmed that the queen's adversaries were the accomplices of Bothwell; that they had subscribed a bond conspiring the death of the king; and that their guilt had been attested, in the sight of 10,000 spectators, by those of their confederates who had already been executed. They exclaimed against the enormous ingratitude, and the unparalleled audacity of men, who could forget so completely all the obligations which they owed to their sovereign; and who, not satisfied with usurping her power, could even charge her with a murder which they themselves had committed. They represented the strong necessity which had arisen for the fullest vindication of their mistress; and they said, that in so weighty an extremity, they could not suppose that she would be restrained from appearing in her own defence. They had her instructions, if her honor was touched, to make this requisition; and, till it was granted, they insisted that all proceedings in the conference should be at an end. A refusal of this liberty, in the situation to which she was driven, would be an infallible proof that no justice was intended to her. It was their wish to deal with sincerity; and they were persuaded that, without a proper freedom of defence, their queen would fall a victim to partiality and injustice. They therefore earnestly pressed the English commissioners that she might be permitted to present herself before Elizabeth, the nobles of England, and the ambassadors of foreign nations, to manifest to the world the injuries she had suffered, and her innocence. After having made these spirited representations to the English commissioners, the deputies of Mary desired to have access to the queen of England. They were admitted accordingly to an audience; and, in a formal address, they detailed what had happened, insisted that the liberty of personal defence should be allowed to their mistress, and demanded that the earl of Murray and his associates should be taken into custody, till they should answer to such charges as should be preferred against them. She desired to have some time to turn her thoughts to matters of such high importance; and told them that they might soon expect to hear from her. The bishop of Ross, and the other deputies of Mary, in the mean time, struck with the perfidious management of the conference, convinced of the jealousies and passions of Elizabeth, sensible that her power over her commissioners was unlimited, and anxious for the deliverance of their mistress, made an overture for an accommodation to the earl of Leicester and Sir William Cecil. They proposed that the original meaning of the conference should still be adhered to, notwithstanding the accusation presented by the earl of Murray; and that Eli-

zabeth, disregarding it as an effort of faction, should proceed to a good agreement between Mary and her subjects. For this scheme, they had no authority from their mistress, but they were moved to it by their anxiety for peace and the re-establishment of the affairs of the Scottish nation. They were introduced at Hampton-court to Elizabeth; who listened to their motion and was averse from it. They then repeated the desires of the petition they had presented to her; but she did not think it right that the queen of Scots should yet have the liberty to defend herself in person. She confessed, indeed, that it was reasonable that Mary should be heard in her own cause; but she affirmed that she was at a loss at what time she should appear, at what place, and to whom she should address herself. While she expressed, however, the hope that Mary might obtain the permission so repeatedly and so earnestly requested, she said that the earl of Murray should first be heard in support of his charge, and that she should attend to the proofs which he said he was ready to produce. After this business should be transacted, she told the deputies of Mary that she would again confer with them. It was to no purpose that they objected to a procedure so strange. An accusation, said they, is given; the person accused is anxious to defend herself; this privilege is denied to her; and yet a demand is to be made for the vouchers of her guilt. What was this but an open violation of justice? They would not, therefore, consent to a measure which was so alarming to the interests of their queen; and, if it was adopted, a protest against its validity would be lodged with her commissioners. The English commissioners resumed the conference, and were about to demand from the earl of Murray the proofs with which he could support his accusation. The bishop of Ross and his associates, being admitted to them, expressed themselves in conformity to the conversation they had with Elizabeth. They declared that it was unnatural and preposterous in their sovereign to think of receiving proofs of the guilt of the queen of Scots, before she was heard in her own defence; and they protested that, in the event of this proceeding, the negotiation should be dissolved, and Elizabeth be disarmed of all power to do any prejudice to her honor, person, crown, and estate. The commissioners of the English queen were affected with this protestation, and felt more for the honor of their mistress than for their own. They refused to receive it, because there were engrossed in it the words of the refusal which Elizabeth had given to the petition for Mary. They did not choose to authenticate the terms of this refusal by their subscriptions; and were solicitous to suppress so palpable a memorial of her iniquity. They alleged that the language of her refusal had not been taken down with accuracy; and they pressed Mary's deputies to present a simpler form of protestation. The bishop of Ross and his colleagues yielded not, however, immediately to their insidious importunity; but, repeating anew their protestations as they had at first planned it, included the express words of Elizabeth; and, when compelled by the power of the

commissioners to expunge the language of the English queen, they still insisted upon their protestation. An interruption was thus given to the validity of any future proceedings which might affect the reputation of the queen of Scots. The earls of Murray and Morton, with their friends, were very much disappointed. For they had solaced themselves with the hope of a triumph before there was a victory; and thought of obtaining a decree from Elizabeth, which, while it should pronounce the queen of Scots to be an adulteress and a murderer, would exalt them into the station and character of virtuous men and honorable subjects. Though the conference ought naturally to have terminated upon this protestation of the deputies of Mary against the injustice of Elizabeth, yet it did not satisfy the latter princess that the accusation only had been delivered to her commissioners; she was seriously disposed to operate a judicial production of its vouchers. The charge would thus have a more regular aspect, and be a sounder foundation upon which to build not only the infamy of the Scottish queen, but her own justification for the part she had acted. Her commissioners accordingly, after the bishop of Ross and his colleagues had retired, disregarding their protestation, called upon the earl of Murray and his associates to make their appearance. The pretence, however, employed for drawing from him his papers, was sufficiently artful, and bears the marks of that systematic duplicity which so shamefully characterises all the transactions of Elizabeth at this period. Sir Nicholas Bacon, the lord keeper, addressed himself to the earl of Murray. He said that, in the opinion of the queen of England, it was a matter surprising and strange that he should accuse his sovereign of a crime most horrible, odious to God and man, against law and nature; and which, if proved to be true, would render her infamous in all the kingdoms of the world. But though he had so widely forgot his duty, yet had not Elizabeth renounced her love of a good sister, a good neighbour, and a good friend; and it was her will that he and his company should produce the papers by which they imagined they were able to maintain their accusation. The earl of Murray, in his turn, was not wanting in dissimulation. He expressed himself to be very sorry for the high displeasure he had given to Elizabeth by his charge against Mary, and for the obstinacy of the Scottish queen and her deputies, which made it necessary for him to vindicate himself by discovering her dishonor. Under the load of this double and affected sorrow, he made an actual and formal exhibition of the vouchers by which he pretended to fix and establish her criminality. A particular notice of these extraordinary vouchers the reader will find in our life of MARY, and in the works there referred to. To enumerate all the shifts to which Elizabeth and the adversaries of Mary were put, to make the strange evidence that was produced wear some degree of plausibility, would far exceed our bounds. It is sufficient to say that, after having wearied themselves with prevarication and falsehood; after having pressed Mary to abdicate her crown, a requisition with which she never would com-

ply; and after having finally refused to hear her in her own defence; Elizabeth, on the 10th January, 1569, gave leave to the earl of Murray and his accomplices to depart her dominions telling them that, since they came into England, nothing had been objected to them which could hurt their honor as men, or affect their allegiance as subjects. At the same time she told them that they had produced no information or evidence, by which she was entitled to conceive any bad opinion of the queen of Scots. It was therefore her pleasure to allow the affairs of Scotland to continue precisely in the same condition in which they were at the beginning of the conference. Three days after this they formally took their leave of the queen of England. The deputies of Mary remonstrated, protested, and argued to no purpose; the English privy council, with the most provoking indifference, told them that 'the earl of Murray had promised to their sovereign, for himself and his company, to return to England at any time she should call upon him. But, in the mean time, the queen of Scots could not, for many strong reasons, be suffered to take her departure out of England. As to her deputies, they would move Elizabeth to allow them to return to Scotland; and they believed that she would not detain them.'

Mary was exceedingly disappointed and chagrined by this singular issue of her cause. Her friends during this period had increased, and the cruel and injurious treatment she had met with was so flagrant that the earl of Murray and his faction were apprehensive of a sudden reverse of fortune. The earls of Argyle and Huntly protested against the injustice of their proceedings, at the same time that they openly accused the earl of Murray and Maitland of Lethington as the associates of Bothwell in the murder of the king. This charge, according to the custom of the times, they offered to prove by the law of arms; and they protested that, if their adversaries should delay to answer the challenge, they should be held as confessing themselves guilty of the murder. Elizabeth, however, foreseeing something of this kind, had dismissed Murray and his adherents with precipitation, so that there could now be no formal production of it before the English commissioners. However, it was known and published in the court of Elizabeth. Murray made an evasive reply, and Lethington made none at all. This, however, afforded no relief to the unhappy queen of Scotland. Her inveterate and treacherous enemy held her fast, and endeavoured, by every method in her power, to render her life miserable. Mary, on the other hand, never lost either her spirit or dignity. She attempted to rouse in the minds of her nobles that passion for liberty which had once so much distinguished the Scottish nation, but which now seemed to be exchanged for a servile subjection to the queen of England. But, some despatches which pressed these topics being intercepted, Mary was removed from Bolton to Tutbury castle, where she was entrusted to the earl of Shrewsbury, and committed to closer confinement than she had yet experienced; while Elizabeth dispersed manifestoes all over the

north counties of England, complaining of reports injurious to her honor, and disclaiming all hostile intentions towards the liberties of Scotland. In the mean time Murray returned to Scotland, where he took every method to establish himself in his ill-acquired power. Mary had commanded the duke of Chatelherault to return to Scotland, to raise forces for her behoof; but this nobleman had been long detained in England by the artifices of Elizabeth, so that Murray had arrived there before him. The duke, however, began to raise forces, and might have proved a troublesome antagonist, had not Murray deceived him by a pretended negotiation, and got him into his power; immediately after which he imprisoned him, and forced most of the other lords who were on that side to submit. When the news of this important event reached the queen of Scots, she instructed the bishop of Ross to repair to Elizabeth, and to make remonstrances in their behalf. By the agency of this ecclesiastic, whom she had constituted her ambassador, she meant to conduct her transactions with the queen of England; and, from the conclusion of the conferences, she had been meditating a proper plan upon which to accomplish her liberty and restoration. The bishop of Ross, after complaining loudly of the rigorous proceedings of the regent, and intimating the general belief which prevailed that he was supported by the English court, pressed the propriety of a final settlement of the affairs of his mistress. With this view, he was admitted by Elizabeth and her privy counsellors to frequent conferences; and they even desired him to present to them in writing the articles which he was commanded to propose as the foundation of a treaty. He failed not to comply with this injunction; and it was the import of his schedule of agreement that Mary should engage never to molest Elizabeth, and the lawful heirs of her body, respecting the succession to the crown of England and Ireland, if she could obtain sufficient security, that upon their demise her rights would be respected; that a new treaty of alliance and friendship should be concluded between the two queens, by the advice of the estates of both kingdoms; that this league should be ratified by their oaths and seals, and confirmed by parliamentary acts; and, if any farther assurance should be deemed necessary on the part of Mary, that she would procure the kings of France and Spain to be the guarantees of her punctuality and concord; that in compliance with the pleasure of Elizabeth, she would extend her clemency to all her subjects who had offended her, under the provision that they would submit to her sovereignty, deliver up the prince her son, restore her castles, give back her jewels, and surrender to her friends and servants the estates and possessions of which they had been deprived; that the murder of the king should be punished against all the actors in it without delay, and according to the laws; that, to prevent Bothwell from returning to Scotland, and to please those who imagined that it was in his power to excite ferments and trouble, she would be bound to institute a process of divorce against him; and that, these articles being adjusted, the queen of England should allow her to proceed to Scotland, under a

safe and honorable convoy, to be re-established by the three estates in her realm and government, and to be gratified with the dissolution of all the acts and statutes which had been passed to her prejudice. These heads of alliance were received with a respect and cordiality which were not usually paid to the transactions of Mary in the court of Elizabeth; and the bishop of Ross was elated with expectation. Their justice, however, was not the sole, or even the chief, cause of this attention and complaisance. A combination of the English nobles had taken place against Cecil, whose power and credit were objects of indignation and jealousy; and the duke of Norfolk had been active and successful in promoting the scheme of his marriage with the queen of Scots.

Taking advantage of the condition of parties, he had practised with the principal nobility to encourage his pretensions to Mary; and he secretly communicated to them the promises of support he had received from the earl of Murray. By the advice and influence of Sir Nicholas Throgmorton, he engaged in his behalf the earl of Leicester, and this nobleman imparted the matter to the earls of Pembroke and Arundel. The duke himself was able to conciliate the favor of the earls of Derby, Bedford, Shrewsbury, Southampton, Northampton, Northumberland, Westmoreland, and Sussex. In the mean time he was eagerly pressing Mary herself with his suit and importunities; and they had mutually exchanged the tokens of a constant and sincere love. It was in this forward state of the match that the bishop of Ross drew up his schedule of articles for the accommodation of the rival queens. At the desire of Elizabeth, her privy council conferred with the bishop upon these articles at different times; and they expressed themselves to be highly pleased with their general import and meaning. Little doubt was entertained of their success; and the earl of Leicester, to complete the business, and to serve the duke of Norfolk, undertook to give them a more special force, and to improve them by the introduction of a stipulation about the marriage of the queen of Scots. According to his scheme of agreement, it was required of Mary that she should be a party to no attempt against the rights and titles of the queen of England or her heirs; that she should consent to a perpetual league, offensive and defensive, between the two kingdoms; that she should finally establish the Protestant religion in Scotland; that she should admit to her favor those of her subjects who had appeared against her; that if she had made any assignment of her kingdom to the duke of Anjou, in the expectation of a marriage to be contracted between them, it should be dissolved; and that instead of looking to a foreign prince whose alliance would be dangerous not only to the religion but to the liberty of the two realms, she would agree to marry the duke of Norfolk, the first peer of Eng. and. These articles being communicated to the bishop of Ross, he was desired to transmit them to Mary; but, as they touched upon some points concerning which he had no instructions, he declined this office, and recommended to employ a special messenger

of their own in a commission of such high importance. They accordingly appointed Mr. Candish to go with them to the queen of Scots, and, in a formal despatch, they extolled the merits of the duke of Norfolk; assured her of the general favor and support of the English nobility, if she should approve of his love; and intimated their belief that Elizabeth would not be averse from a marriage which gave the certain promise of tranquillity and happiness to the two kingdoms. This despatch was in the handwriting of Leicester; and it was subscribed by this nobleman, and the earls of Arundel and Pembroke, and lord Lumley. Mary, in the solitude of her prison, received this application with pleasure. By the lord Boyd she returned a very favorable answer to it; but took the liberty to admonish them of the necessity of their securing the good-will of Elizabeth, lest her dislike of the treaty of the marriage should excite new disasters, and involve the duke of Norfolk in danger. This advice, the suggestion of her delicacy and prudence, did not draw sufficiently their attention. The duke of Norfolk was now impatient to conclude this great transaction in which he had engaged himself; and admitted into his counsels many nobles whom he had hitherto neglected to court, and many gentlemen who were considerable from their distinction and fortunes. The countenance and consent of the kings of France and Spain were thought necessary to the measures in agitation, and were solicited and obtained. In the universality of the applause with which they were honored, it was supposed that Elizabeth would be allured into a cordial acknowledgment of their propriety, or be compelled to afford them a reluctant approbation; and so ardent a belief prevailed of their fortunate termination that the marriage-contract was actually entrusted to the keeping of M. Fenelon, the French ambassador. The activity of the duke of Norfolk with the English nobles did not so much engross his attention as to make him forget the regent. He kept up with him a close correspondence in consequence of the concert into which they had entered, and received the most ample assurances of his fidelity and service. The most sanguine and seducing hopes elated him. The regent, while he stipulated for terms of favor and security to himself and his faction, appeared to be full of the marriage, as a measure from which the greatest advantages would arise to the two kingdoms, to the two queens, and to the true religion. The match, in the meanwhile, was anxiously concealed from Elizabeth; but she was zealously pressed to conclude an accommodation with Mary, on the foundation of the schedule of agreement presented by the bishop of Ross. After having had many conferences with her privy-council, she seemed inclined to treat definitively for the restoration of the queen of Scots, and actually agreed to open the transaction to the regent. Lord Boyd was sent into Scotland upon this business; and, while he carried her letters, he was intrusted with despatches from Mary, the duke of Norfolk, and Sir Nicholas Throgmorton. As the regent was returning from his northern expedition, he was saluted at

Elgin by lord Boyd, who immediately laid before him the despatches and instructions with which he had been charged. The queen of England, in her letters, made three propositions in behalf of Mary, and intimated a desire that one of them should be accepted. The queen of Scots, she said, might be restored fully and absolutely to her royal estate; she might be associated in the government with her son, have the title of queen, and, till the prince should attain the age of seventeen years, the administration might continue in the regent; or she might be permitted to return to Scotland in a private station, and have an honorable appointment to maintain her in a safe and happy obscurity.

The despatches from Mary to the regent desired that judges might immediately be allowed to enquire into the legality of her marriage with Bothwell; and that, if it was found to have been concluded in opposition to the laws, it should be declared void, and that the liberty be granted to her of entering anew into a matrimonial engagement. The duke of Norfolk expressed to the regent the gratitude he felt for his friendship; promised him the command of the fullest exertions of his consequence and power; entreated him to proceed expeditiously in promoting the business of the marriage, and referred him to the instructions of lord Boyd for a satisfactory answer to any doubts which might give him disgust or uneasiness. By the letters of Throgmorton, the regent was advertised that the marriage of the queen of Scots with the duke of Norfolk was a certain and decided point; and he was counselled to concur heartily and expeditiously in this transaction, that his consent might not seem to have been extorted. Maitland of Lethington was recommended to him by this statesman as the person whom he should choose to represent him in the English court, as he could negotiate best the terms and mode of his security and that of his party. The zeal of Throgmorton induced him also upon this occasion to address to Maitland a despatch, in which he was importunate to hasten his expedition to England, in the character to which he recommended him. He complimented him as the fittest person to open the match to the English queen, on the part of the regent and the Scottish nobility; and he represented the success of the scheme to be infallible, as Elizabeth would never be so unwise as to put her own safety, the peace of her kingdom, and the preservation of her people, in competition with the partial devices that might proceed from the vanity and the passions of any person whatsoever. He enumerated the names of the English nobility who had confederated to promote the marriage. He enlarged upon it as an expedient full of wisdom, and as advantageous in the highest degree to religion and the state. He pointed out the lasting and inseparable connexion of England and Scotland, as its happy and undoubted consequence. For, if James VI. should die, the sceptres of the two kingdoms should devolve to an English prince; and, if he should attain to manhood, he might marry the daughter of the duke of Norfolk, and unite in his person the two crowns. These weighty despatches employed fully the

thoughts of the regent. The calls of justice and humanity were loud in the behalf of Mary; his engagements to Norfolk were precise and definitive; and the commission of Elizabeth afforded him the command of the most important services. But, on the other hand, the restoration of Mary and her marriage would put an end for ever to his greatness; and, amidst all the stipulations which could be made for his protection, the enormity of his guilt was still haunting him with suspicions and terror. His ambition and his selfish sensibilities were an overmatch for his virtue. He practised with his partisans to throw obstacles in the way of the treaty and the marriage; and, on the pretence of deliberating concerning the restoration of Mary, and on her divorce from Bothwel, a convention of the estates was summoned by him to assemble at Perth. To this assembly the letters of Elizabeth were recited; and her propositions were considered in their order. The full restoration of Mary to her dignity was accounted injurious to the authority of the king, and her association with her son in the government was judged improper and dangerous; but it was thought that her deliverance from prison, and her reduction to a private station, were reasonable expedients. No definitive decree, however, was pronounced. The letters of Mary were then communicated to this council, and gave rise to vehement debates. She had written and subscribed them in her character of queen of Scotland. This carriage was termed insolent and imperious by the friends of the regent. They also held it unsafe to examine her requests till they should be communicated to Elizabeth. The favorers of Mary engaged that, while the commissaries were proceeding in the business of the divorce, new despatches in the proper method should be applied for and procured. They were heard with evident symptoms of displeasure; on which they exclaimed 'that it was wonderful to them that those very persons who lately had been so violent for the separation of the queen and Bothwel, should now be so averse from it.' The partisans of the regent replied 'that, if the queen was so eagerly solicitous to procure the divorce, she might apply to the king of Denmark to execute Bothwel, as the murderer of her husband; and that then she might marry the person who was most agreeable to her.' The passions of the two factions were inflamed to a most indecent extremity, and the convention broke up with strong marks of hostility. Notwithstanding the caution with which Mary and Norfolk carried on their intrigues, intimations of them had come to Elizabeth. Norfolk himself, by the advice of the earl of Pembroke, had ventured to disclose his secret to Sir William Cecil, who affected to be friendly to him. The regent, in answer to her letters, transmitted to her the proceedings of the convention at Perth. The application of Mary for a divorce was a key to the ambitious hopes of the duke of Norfolk. He commanded Sir William Cecil to apply himself to discover the conspiracy. This statesman betrayed the confidence with which he had been entrusted; and Elizabeth, while the duke was attending her at Farnham, discovering

mixture of pleasantry and passion, admonished

him to be careful on what pillow he reposed his head. The earl of Leicester, alarmed by his fears, revealed to her at Titchfield the whole proceedings of the duke of Norfolk and his friends. Her fury was ungovernable; and, at different times, she loaded Norfolk with the severest reproaches and contumely for presuming to think of a marriage with the queen of Scots without her concurrence. Insulted with her discourse and her looks, abandoned by Leicester, and avoided by other nobles in whom he had confided, his courage forsook him. He left the court at Southampton without taking leave, and went to London to the earl of Pembroke. New intimations of her displeasure were announced to him, and he retired to his seat at Kinninghall in Norfolk. His friends pressed him to take the field, and to commit his safety to the sword; but, having no inclination to involve his country in the miseries of war, he rejected their advice; and, addressing an apology to Elizabeth, protested that he never meant to depart from the fidelity which he owed to her; and that it was his fixed resolution to have applied for her consent to his marriage with the queen of Scots. In return she ordered him to repair to her court at Windsor; and, as he appeared to be irresolute, a messenger was despatched to take him into custody. He was first confined to the house of Paul Wentworth, at Burnham, in the neighbourhood of Windsor, and then committed to the Tower. The earls of Pembroke and Arundel, lord Lumley, Sir Nicholas Throgmorton, and the bishop of Ross, were also apprehended and confined.

Elizabeth, amidst the ferment of her inquietudes, gratified her revenge by insulting the queen of Scots. The earl of Huntingdon, who affected to have pretensions to the crown of Scotland preferable to those of the Scottish princess, was joined with the earl of Shrewsbury in the office of guarding her. His instructions were rigorous and he was disposed to exceed them. The earl of Shrewsbury considered it as an indignity to have an associate who was a declared enemy to his charge, who had an interest in her death, and who was remarkable for a natural ferocity of disposition. Mary exclaimed against the indelicacy and rudeness of Elizabeth, and protested that all her intentions were commendable and innocent. Huntingdon took a delight in her sufferings. He ransacked her coffers with a view of making discoveries; but her prudence had induced her to destroy all the evidences of her transactions with the duke of Norfolk; and the officious assiduity of this jailor was only rewarded with two cyphers which he could not comprehend. The domestics whom she favored were suspected and dismissed. Her train of attendants was diminished. An unrelenting watch was kept upon her. No couriers were allowed to carry her despatches. No messengers were admitted to her presence; and all the letters from her friends were ordered to be intercepted, and conveyed to the queen of England. The proceedings of the convention at Perth were afflicting to Elizabeth, to Mary, and to the duke of Norfolk. In the former they created suspicions of the regent; and they were a certain annunciation to the latter that he was resolved

to support himself in the government of Scotland. Uncertain rumors had reached Elizabeth of the interviews he had held with Norfolk in the business of the marriage. Mr. Wood, who brought from the regent his answer to her letter, was treated with disrespect. Secretary Cecil sent instructions to lord Hudson, the governor of Berwick, to watch his operations. Elizabeth, by a special envoy, required from him an explanation of his ambiguous carriage. The regent apologised to her for his connexions with the duke of Norfolk, by laying open the design of that nobleman to cut him off, in his way to Scotland, by a full communication of whatever had passed between them in relation to Mary, and by offers of an unlimited submission and obedience. While the duke of Norfolk was carrying on his intrigues with Mary, the scheme of an insurrection for her deliverance was advancing under the direction of the earls of Northumberland and Westmoreland. Motives of religion were the chief foundation of this conspiracy; and the more zealous catholics over England were concerned in it. Mary, however, by the advice of the duke of Norfolk, who was afraid of her marching with a foreign prince, did not enter into it with cordiality. It advanced notwithstanding; and the agents of the pope were lavish of exhortations and donatives. The duke of Alva, by the order of his master the king of Spain, encouraged the conspirators with the offer of 20,000 men from the Netherlands; and, under the pretence of adjusting commercial disputes, he sent to England Chiapini Vitelli, marquis of Celona, an officer of ability, that he might be at hand, and prepare to take the command of them. The report of an insurrection was universal. Elizabeth kept an army of 15,000 men near her person. The queen of Scots was removed to Coventry, a place of strength; and, if a superior and commanding force should appear before it, her ferocious keeper had orders to assassinate her. Repeated commands were sent to the earls of Northumberland and Westmoreland to repair to court. But the imprisonment of the duke of Norfolk and his friends had struck a panic into them. They conceived that their conspiracy was discovered; and, putting themselves at the head of their followers, they issued their manifesto. The restoration of popery, the establishment of the titles of Mary to the English crown, and the reformation of abuses in the commonwealth, were the avowed objects of their enterprise. But they had embarked in a business for which they were altogether unequal. Their efforts were feeble and desultory. The duke of Alva forgot his promises. Wherever the peace was disturbed by insurgents, there were troops to oppose them. The vigilance of Elizabeth disconcerted with ease the operations of men whom no resources or popularity could have conducted to greatness, and who could neither conquer nor die. The earl of Westmoreland, after concealing himself for some time in Scotland, effected an escape into Flanders, where he passed a miserable and useless existence; and the earl of Northumberland, being taken by the regent, was imprisoned in the castle of Lochleven. As the fury of Elizabeth abated, her re-

sentment to the duke of Norfolk lost its power; and she failed not to distinguish between the intrigues of an honorable ambition, and the practices of an obstinate superstition. It was the result of the examination of this nobleman, and of the confessions of the other prisoners, that Lethington had schemed the business of the marriage, and that the earl of Murray had encouraged it; that her consent was understood to be necessary to its completion; and that Mary herself had warmly recommended the expedient of consulting her pleasure. Upon receiving proper admonitions, the earls of Pembroke, Arundel, the lord Lumley, Sir Nicholas Throgmorton, and the bishop of Ross, were released from confinement; and, after a more tedious imprisonment, the duke of Norfolk himself was admitted to his liberty. This favor, however, was not extended to him till he had not only submissively acknowledged his presumption in the business of his marriage; but had fully revealed whatever had passed between Mary and him, and solemnly engaged himself never more to think of this alliance, and never more to take any concern whatsoever in her affairs. The regent, in the meanwhile, was very anxious to recover the good opinion of Elizabeth. Her treatment of Mr. Wood, and her discovery of his practices, had excited his apprehensions. He therefore assembled at Stirling a convention of the estates; and, taking her letters a second time into consideration, returned her an answer to them by Robert Pitcairn abbot of Dunfermline, in a style suited to her temper and jealousies, and from which she could infer that no favor would be shown to the queen of Scots. But this base condescension not being sufficient, in his opinion, to draw completely to him the cordiality of the queen of England, he was preparing to gratify her with another sacrifice. The partiality of Maitland to Mary, and his intrigues with Norfolk and the English malcontents, had rendered him uncommonly obnoxious to Elizabeth. The late commotions had been chiefly ascribed to his arts. Under the pretence of employing his service in despatches to England, the regent invited him to Stirling. He was then with the earl of Athol at Perth; and, suspecting some device, he obeyed the summons with reluctance. When he took his place in the privy council, captain Crawford, the minion of the earl of Lennox, who had distinguished himself in the trial of Mary, accused him, in direct terms, of being a party in the murder of the late king. The regent affected astonishment, but permitted him to be taken into custody. He was soon after sent to Edinburgh under a guard, and admonished to prepare for his trial. Upon similar charges the lord Seton and Sir James Balfour were seized upon and imprisoned. Kirkaldy of Grange, the governor of the castle of Edinburgh, who was warmly attached to Maitland, after having remonstrated in vain with the regent on his conduct, employed address and stratagem in the service of his friend. Under the cover of night, he went with a guard of soldiers to the lodging where Maitland was confined; and, showing a forged warrant for taking his person into keeping, got possession of him. Kirkaldy

had now in his castle the duke of Chatelherault, the lord Herries, and Maitland. The regent sent for him to a conference; but he refused to obey his message. He put himself and his fortress under the direction of his prisoners. The regent, condescending to pay him a visit, was more lavish than usual of his promises and kindness. His arts, however, only excited the disdain of this generous soldier. As the regent could not lead out Maitland to the block, he instituted a process of treason against him, to forfeit his estates. Kirkaldy, by a trumpeter, desired him to commence similar actions against the earl of Morton and Mr. Archibald Douglas, as it was notorious that they were parties to the king's murder. This messenger was likewise charged with delivering a challenge from him to Mr. Archibald Douglas, and another from the lord Herries to the earl of Morton. This disappointment, and these indignities, made a deep impression upon the regent; and, in a thoughtful dissatisfied humor, about this time, he made a short progress towards the English border, courting popularity, and deserving it, by an attention to order and justice. Elizabeth, flattered by his submissive advances, and pleased with his ambition, was now disposed to gratify his fullest wishes; and she perceived that, by delivering to him the queen of Scots, she would effectually relieve herself of a prisoner whose vigor and intrigues were a constant interruption to her repose. A treaty for this purpose was entered into and concluded. The regent was to march an army to the English frontiers, and to receive from her his sovereign into her own dominions, the victim of his power, and the sport of his passions. No hostages and no security were stipulated for her entertainment and good usage. His authority over her was to be unlimited. Upon his part he was to deliver to Elizabeth the young prince, to put her in possession of the principal forts of Scotland, and to assist her with troops in the event of a war with France. This treaty, so fatal to Mary, and so ruinous to the independence of Scotland, escaped not the vigilance of the bishop of Ross. He complained of it in the strongest terms to Elizabeth; and declared it to be equivalent to a sentence of death against his mistress. The ambassadors of France and Spain were also strenuous in their remonstrances to her upon this subject. All resistance, however, was unavailing; and the execution of the treaty seemed inevitable. Yet how vain are the loftiest schemes of human pride! The career of the regent was hastening to its termination; and the hand of an assassin put a period to his dream of royalty. Scotland did not lose its liberties; but Mary continued to be unfortunate. James Hamilton of Bothwellhaugh, who had been taken a prisoner at the battle of Langside, obtained his liberty and life; but his estates were forfeited. His wife, the heiress of Woodhouslie, retired upon this emergency to her paternal inheritance, in the hope that it might escape the rapacity of the regent. He had, however, given it away to one of his favorites, Sir James Ballenden; and the instruments of his power having the inhumanity to strip her of her garments, and to turn her naked out of her house,

in a cold and dark night, she became distracted before the morning. Hamilton vowed revenge; and the regent made a mockery of his threats. This contempt inspired his passions; and the humiliation of the house of Hamilton, to which he was nearly allied, fostered his discontents until the madness of party reconciled his mind to assassination. After watching for some time a proper opportunity to commit his horrible purpose, he found it at Linlithgow. The regent was to pass through this town in his way from Stirling to Edinburgh. Intimations reached him that Hamilton was now to perpetrate his design; but he unaccountably neglected them. The assassin, in a house that belonged to the archbishop of St. Andrews, waited deliberately his approach; and, firing his musket from a window, shot him through the body. The wound was not judged to be mortal; but the regent, finding his pain increase, prepared for death; and in a few hours expired. A fleet horse of the abbot of Arbroath's carried the assassin to the palace of Hamilton; and thence he soon after effected his escape into France.

The death of Murray made no favorable alteration in the affairs of Mary. Confusion and disorder prevailed throughout the kingdom; and, though the friends of the queen were promised assistance from France, nothing effectual was done. At last the regency was conferred upon the earl of Lennox; an enemy to his queen, and who treated her friends with the utmost rigor. At the same time Elizabeth continued to amuse with negotiations her unhappy rival. She granted liberty to the bishop of Ross to repair to the queen of Scots, who had been removed to Chatsworth, and to confer with her on the intended accord and treaty. Mary, conforming to the advances of Elizabeth, authorised lord Livingston to pass to her dominions, and to desire her friends to appoint a deputation of their number to give their assistance in establishing the tranquillity of their country: and, after meeting with some interruptions upon the English borders from the earl of Sussex, this nobleman executed successfully his commission. The queen's lords gave power to ten nobles to act in a body, or by two of their number, in the intended negotiation; and a safe conduct from Elizabeth allowed them to enter the English realm, and to remain in it six months. While lord Livingston was consulting the interests of Mary with her friends in Scotland, the bishop of Ross was making earnest suit with Elizabeth to proceed in the projected negotiation. His solicitations were not ineffectual; and Sir William Cecil and Sir Walter Mildmay were ordered to wait upon the queen of Scots at Chatsworth. The heads of accommodation which they proposed were explicit and particular; and the rigor they discovered towards the Scottish princess seemed to vouch their sincerity. They proposed that a perfect amity should take place between the two queens; that all the treaties formerly concluded by the two nations should receive an ample confirmation; that the queen of Scots should ratify the treaty of Edinburgh, and forbear from advancing any title or claim to the crown of England during the life of Elizabeth, or to the prejudice of the heirs of her body,

that, in case of foreign invasions, the two realms should mutually assist each other; that all foreign soldiers should be ordered to depart out of Scotland; that, in the future, strangers of the profession of arms should be prohibited from repairing to it, and from taking up their residence in any of its castles or houses of strength; that Mary should hold no correspondence, directly or indirectly, with any subject of England, without the permission of the English queen; that the earl of Northumberland, and the English rebels in Scotland, should be delivered up to Elizabeth; that redress should be given to the subjects of England for the spoils committed upon them by the Scottish borderers; that the murderers of lord Darnley and the earl of Murray should be punished; that, before the queen of Scots should be set at liberty, the young prince her son should be brought into England, and that he should continue in the keeping of Elizabeth till the death of his mother, or till her resignation to him of her crown on attaining his majority; that the queen of Scots should not enter into a negotiation for her marriage without the knowledge of the queen of England, nor conclude it without her approbation, or that of the greatest part of the Scottish nobility; that none of the subjects of Scotland should be suffered to go to Ireland without the safe conduct of Elizabeth; and that Mary should deliver to her all the testimonies and writings which had been sent from France, renouncing the pretended marriage between her and the duke of Anjou. Besides these articles, it was proposed by another treaty to adjust the differences of the queen of Scots and her subjects; and Sir William Cecil and Sir Walter Mildmay embraced the opportunity of conferring with her upon this business, under the pretence of facilitating its management in the future stages of its progress. During their stay at Chatsworth, these statesmen were completely satisfied with the behaviour of the queen of Scots. The candor, sincerity, and moderation, which she displayed, were full assurances to them, that, upon her part, there was no occasion to apprehend any improper policy or art; and the calamities of her condition were a still securer pledge of her compliance. Elizabeth, upon hearing their report, affected to be highly pleased with her sister, and sent a message to the earl of Lennox, instructing him in the conditions which had been submitted to Mary, and desiring him to dispatch commissioners into England to deliberate in the treaty, and to consult his interest and that of his faction. Nor did Mary neglect to transmit to her friends in Scotland the proposed terms of agreement; and the bishop of Ross, who had assisted her in the conferences with Sir William Cecil and Sir Walter Mildmay, conveyed intimations of them to the pope, the king of France, and the duke of Alva; besought their advice, and informed these princes that, unless an effectual relief could be expected from their favor, the necessities of her condition would compel her to subscribe to the hard and humiliating dictates of the queen of England.

But, while Mary and her friends were indulging the hope of a termination to her troubles, Elizabeth was secretly giving concert to

her adversaries, and encouraging them to throw obstacles in the way of the treaty. Sir William Cecil wrote to the regent, expressing his disapprobation of the negotiations at Chatsworth; desiring him not to be apprehensive of the boastings of the adherents of the queen of Scots; and advising him to make choice of commissioners, in the name of the king, in whose constancy and fortitude he could rely. The earl of Sussex also sent him despatches, in which he admonished him to turn his anxious attention to the approaching negotiation, and to insist on secure stipulations for the preservation of the prince, for his own safety, and for a general indemnity to the nobles and their adherents, whose party he had espoused. In every event he represented it as proper for him to pay the greatest respect to Elizabeth; and, if no treaty should be concluded, he advised him to be prepared for reducing the friends of Mary to obedience, and for defending himself against invasions from abroad. By these artifices, the regent and his faction intimated to Elizabeth their dissatisfaction with the terms of agreement proposed to Mary; and Pitcairn abbot of Dunfermline, who had been appointed secretary of state in the room of Maitland of Lethington, was sent to her upon this business. He exclaimed against the treaty as wild and impolitic; and contended that no stipulations could bind Mary, whose religion taught her to keep no faith with heretics; that her claims to the English crown, and her resentment against the queen of England, as well as her own subjects, would, immediately upon her restoration, involve the two kingdoms in blood; and that no peace could be enjoyed, but by detaining her in close captivity. Elizabeth did not discourage these iniquitous sentiments; and Pitcairn was assured by her that from her natural love to the king, and her regard to the nobles, she would provide for their security, and maintain their quarrel and their consequence. Mary had been carried to Sheffield, and was recovering from a fever. To this place the bishop of Galloway and lord Livingston, who had been selected by her friends to be her acting deputies in England, repaired to impart to her the state of affairs in Scotland, and to receive her commands. After repeated conferences on the approaching treaty, she gave them her commission and instructions, and, joining them to the bishop of Ross, sent them to Elizabeth. They claimed an audience of this princess, and were admitted to it at Hampton-court. Having presented their credentials, they informed her that they were ready to conclude a treaty of concord and agreement, upon principles the most extensive and liberal; and, representing to her the impoverished and tumultuous state of their country, they begged her to proceed in the business with expedition. The orders, they said, which they had received, and their own inclinations, disposed them to follow her advice and counsel in all points which were honorable and consistent with reason; and, as her protection was the only refuge of the adversaries of her queen, it was completely in her power to put a period to all disturbances, and to accomplish an accord, which would not only confer upon her

the highest reputation, but be of the most signal utility to the two kingdoms. Elizabeth declared that it would please her highly to advance in the negotiation; and that it was a pain to her that the regent, by his delay in sending commissioners, should discover any aversion from it. This answer was deemed very favorable by the bishop of Ross and his associates; and they obtained her authority to send a messenger to the regent to hasten his operations. In the mean time Mary received despatches from the pope, the king of France, and the duke of Alva; and they concurred in recommending it to her to accept of the articles of accommodation offered by Elizabeth. The Turk was giving employment to the pope and the king of Spain: Charles IX., already enfeebled by the obstinate valor of the Huguenots, was busy in deceiving them with appearances of peace, and in plotting their massacre; and the duke of Alva felt himself insecure in his government of the Netherlands. But, while they strongly advised Mary to conclude an agreement with the queen of England, they were yet lavish to her of their expressions of a constant amity; and, if the treaty should miscarry, they promised to make the most strenuous exertions in her behalf, and to assist her adherents with money, ammunition, and troops. The earl of Morton, the abbot of Dumfermline, and Mr. James Macgill, had been appointed by the regent and his faction to be their commissioners in the name of the king; and at length their arrival was announced to Elizabeth. They justified to her the deposition of the queen of Scots, and thus interrupted the progress of the treaty. In an elaborate memorial they affected to consider Mary as unworthy to reign, and asserted the constitutional power of the people to throw her down from royalty. They endeavoured to entrench themselves within the authority of laws, civil, canon, and municipal. But though the general position, that the people have a title to resist the domination of the sovereign is clear and undubitable, yet their application of it to the queen of Scots was wildly precarious and improper. To speak of her tyranny, and her violation of the rights of her people, was even a wanton mockery of truth and justice; for, instead of having assumed an illegal exorbitancy of power, she had suffered in her own person and rights, and had been treated by her subjects with the most cruel and tyrannical insolence. Elizabeth, who was afraid to enter anew into the conduct of Mary, who was fully sensible of the insolence of her adversaries, and who did not approve of any maxims that pressed against the majesty of princes, received their memorial with surprise and indignation. She perceived not, she told them, any reason that could vindicate the severity which had been shown to the queen of Scots by her enemies; and advised them to consider that in the present negotiation it was their proper business to consult the security of the king and of their faction. Upon the part of Elizabeth, the commissioners were the lord keeper Bacon, the earls of Sussex and Leicester, lord Clinton, lord chamberlain, Sir William Cecil (now lord Burleigh), Sir Francis Knollys, Sir James Croft, Sir Walter

Mildmay, and Sir Thomas Smith. The deputies of Mary were invited to meet with the English commissioners in the house of the lord keeper; and, after he had stated the general purposes of the treaty, he intimated to them that there were two points which required a particular discussion. A proper security, he said, ought to be given by the queen of Scots for her due performance of the stipulations of the agreement with Elizabeth; and it was expedient to concert the mode of the pardon and indemnity which she was to extend to the subjects of Scotland who had offended her. As an assurance of the accommodation with his mistress, he demanded that the duke of Chatelherault, the earls of Huntly and Argyle, the lords Hume and Herries, with another person of high rank, should be surrendered to her, and remain in England for three years; that the castles of Dumbarton and Hume should be in her possession during the same period; and, as to the delivery of the prince into her custody, he observed that it would be required from the regent, the queen of Scots not having the power of its performance. The deputies of Mary, surprised with his language, intreated the English delegates to reflect that their queen, if deprived of the most faithful of her nobles, and of her strongest forts, could have little desire to return to her own kingdom; for she would thus be unable to protect herself against the turbulence of her subjects, and be a sovereign without friends and without strength. They were inclined, they said, to act upon their commission and powers to the utmost extent to gratify Elizabeth; and they would agree that two earls and two barons should be surrendered for two years, as hostages of the fidelity of their sovereign, under the restriction that they might be exchanged every six months for persons of an equal condition. As to the giving up of any forts or castles, they would not agree to it, because, among the other inconveniences of this measure, similar claims would be competent to the king of France, by the spirit of the treaty of Edinburgh, which stipulated that no French or English troops should be admitted into Scotland. The lord keeper Bacon told them that the whole kingdom of Scotland was an inadequate pledge, and that, if his advice would be followed, the queen of Scots should not obtain her liberty upon any kind of security which could be granted by the Scottish nation. In all public treaties, said the delegates of Mary, no further assurances can be required from a sovereign than what consists with his safety; and, when exactions are pressed from a contracting party in a league which are ruinous and impossible, a foundation is sought to break off the negotiation. The English commissioners now, interfering in a body, declared upon their honor that it was the meaning of Elizabeth to agree to the restoration of the queen of Scots to her crown and realm, upon receiving sufficient assurances for the articles of the accommodation; that the security offered for her acceptance should be submitted to her deliberation; and that they would immediately proceed to confer with the deputies for the king of Scots. The English commissioners were not unacquainted with the sentiments of the earl of Mor-

ton and his colleagues; and it was from this quarter that they expected a resolute and definitive interruption to the treaty. Nor did these delegates disappoint their expectations. After affecting to take a comprehensive view of the articles under debate, they declared that their commission gave them authority to treat about the amity of the two kingdoms, and the maintenance of the true religion; but that it conferred upon them no power to receive their queen into Scotland, or to surrender to Elizabeth the person of their king. They therefore begged not to be urged to accede to a league which, in some future period, might expose them to a charge of high treason. This singular declaration was considered to be solid and weighty by the English commissioners; and, in a new conference, it was communicated by them to the deputies of Mary. The bishop of Ross and his associates were disgusted with this formal impertinence. They did not hesitate to pronounce it to be an unworthy and most frivolous subterfuge. The authors, they said, of the deposition of their sovereign did not need any authority but their own to set her at liberty; the prince was not yet five years of age, and could give them no instructions: and the regent was wholly dependent upon the will and pleasure of the queen of England. It was replied by the English delegates that the commission of king James to his deputies, having been perused by Elizabeth, was accounted by her to be insufficient; and that it was her opinion that the earl of Morton should return to Scotland to hold a parliament for obtaining new powers. The bishop of Ross exclaimed that the queen of Scots had been amused with deceitful promises, that the prudence of Elizabeth had been corrupted by partial counsels, and that the pretences for interrupting the negotiation were affected and unreal. The instructions, he said, from his sovereign to her commissioners were to negotiate and conclude, and not to trifle; and they would not consent to protract, by artificial delays, a treaty which the queen of England, if her intentions were sincere, could immediately terminate upon reasonable and honorable terms. His speech and his demeanor he acknowledged to be free and open; and he besought them to excuse him, since, having been made an instrument to abuse his mistress with false hopes, he could not but resent the indignity, and express what he knew and what he felt. The English deputies, addressing him and his colleagues, observed that as the friends of Mary, and those of the king her son, could not come to an agreement, and as their queen was refused the assurance she expected, they held their commission to be at an end, and were no longer at liberty to negotiate. The insincerity of Elizabeth, and the failure of the league or agreement, filled Mary with resentment and complaints. Her animosities and those of Elizabeth were increased. She was in haste to communicate to her allies the unworthy treatment she had received; and she sent her commands to her adherents in Scotland to rise up in arms, to repose no trust in truces which were prejudicial and treacherous, and to employ all their resources and strength in the humilia-

tion of the regent and his faction. Elizabeth, who by this time apprehended no danger from Charles IX., or the duke of Alva, resolved to give a strong and effectual support to the king's friends, and to disunite by stratagem, and oppress by power, the partisans of the Scottish princess. The zeal of the bishop of Ross having raised her anger, she commanded him to depart from London; and Mary, in contempt of her mandate, ordered him to remain there under the privilege of her ambassador. The high and unbroken spirit of the Scottish queen, in the midst of her misfortunes, never once awakened the generous admiration of Elizabeth. While it uniformly inflamed her rage, it seems also to have excited her terror. With a pusillanimous meanness, she sent a despatch to the earl of Shrewsbury, instructing him to keep his charge in the closest confinement, and to be incessantly on his guard to prevent her escape. He obeyed, and regretted her severity. The expense, retinue, and domestics of the queen of Scots, were diminished and reduced, and every probable means by which she might endeavour to obtain her liberty were removed from her. The rigors, however, that invaded her person could not reach her mind; and she pitied the tyrant that could add distress to oppression, and deny her even the comforts of a prison. All this time Scotland was involved in the miseries of civil war. The friends of Mary were every where punished with fines and forfeitures. Private families took the opportunity of the public confusion to revenge their quarrels against each other. Individuals of every denomination ranged themselves on the side either of the regent or of the queen, and took a share in the hostilities of their country. Acts of outrage and violence were committed in every quarter, while, amidst the general confusion, religion was made the pretence by both parties. Meantime, though many encounters took place between the two factions, yet neither party seems to have been conducted by leaders of any ability or skill in military affairs. This year, in one of these skirmishes, the regent himself was taken prisoner by a party of the queen's faction, and put to death. But this event made little change in the affairs of the nation.

The earl of Mar, another of the queen's enemies, was chosen to the regency; but, though he proposed to act against her party with rigor, he was baffled before Edinburgh castle, which was still held by her friends; and some bloody skirmishes were fought in the north, where victory declared in favor of the queen. These advantages, however, were more than compensated to the other party by the following event. While the negotiations with Elizabeth for Mary's restoration were depending, the scheme of a conspiracy for her deliverance was communicated to her by Robert Ridolphi, a Florentine, who lived in London many years as a merchant, and who was secretly an agent for the court of Rome. But to his letters, while the fate of the treaty was uncertain, she returned no reply. Its miscarriage, through the duplicity of Elizabeth, recalled them forcibly to her attention, and stimulated her to seek the accomplishment of her

liberty by measures bolder and more arduous than any which had been hitherto employed by her. She drew up in cipher an ample description of his communications and of her situation, and despatched it to the bishop of Ross, together with letters for the duke of Norfolk.

Her instructions to this ecclesiastic were to convey these papers and letters expeditiously to Norfolk, and to concert an interview between that nobleman and Ridolphi. The confidential servants by whom the duke acted with the bishop of Ross were Bannister and Barker; and, having received from them the paper, they were deciphered by Hickford, his secretary. Having considered them maturely, he delivered them to Hickford, with orders to commit them to the flames. But his orders were disobeyed; and Hickford deposited them, with other papers of consequence, under the mats of the duke's bed-chamber. The contents of these communications awakening the hope and ambition of Norfolk, he was impatient to see Ridolphi; and the bishop of Ross soon brought them together. Ridolphi, whose ability was inspired by motives of religion and interest, exerted all his address to engage the duke to put himself at the head of a rebellion against his sovereign. He represented to him that there could not be a season more proper than the present for achieving the overthrow of Elizabeth. Many persons who had enjoyed authority and credit under her predecessor were much disgusted; the Roman Catholics were numerous and incensed; the younger sons of the gentry were languishing in inaction; and there were multitudes disposed to insurrection from the love of change, and the ardor of enterprise. He insinuated that his rank, popularity, and fortune, enabled him to take the command of such persons with advantage; and painted out the glory he might purchase by the humiliation of his enemies, and by his marriage with the queen of Scots. To give strength to these considerations he produced a long list of noblemen and gentlemen, whom he affirmed to be ready to hazard their lives for a revolution, if the duke would enter into it with cordiality. He also mentioned the aid with which he might flatter himself from abroad. The pope he assured him had already provided 100,000 crowns for the enterprise; and, if popery should be advanced in England, he would cheerfully defray the whole charges of the war. The king of Spain would supply 4000 horse and 6000 foot, which might be landed at Harwich; and Charles IX. was devotedly attached to the queen of Scots. In fine, he urged that, while he might depend on the assistance and arms of the greatest princes of Christendom, he would entitle himself to the admiration of all of them by his magnanimous efforts and generous gallantry in the cause of a queen so beautiful and so unfortunate. The duke, allured by appearances so plausible, forgot the submissive obligation in which he had bound himself to Elizabeth never more to interfere in the affairs of the Scottish princess. Ridolphi, in this forward state of the business, advised him to write to the pope, the king of Spain, and the duke of Alva, expressive of his concurrence in the design, and inspiring

their activity and resolutions. He even produced letters framed for this purpose; and, while he entreated the duke to subscribe them, he offered to carry them himself to Flanders, Rome, and Spain. The duke, who was ambitious and timid, disposed to treason, and unfit for it, refused to subscribe the letters; but he allowed the bishop of Ross and Barker his servant to go to the Spanish ambassador to express his approbation of the measures of Ridolphi, to acknowledge that the letters were according to his mind, and to empower this statesman to certify their authenticity to his court. Ridolphi, full of hopes, set out to execute his commission. He passed first to the duke of Alva, to whom he communicated the transactions in which he had been engaged, and with whom he held many conferences. There was at this time at Brussels Charles Bailly, a servant of queen Mary's; and Ridolphi, after disclosing to him his proceedings with Alva, entrusted him with letters to her, to the duke of Norfolk, the Spanish ambassador, and the bishop of Ross. When this messenger reached Calais, a letter was delivered to him from the bishop of Ross, desiring him to leave his despatches with the governor of that place. But he neglected this notice; and, being searched at Dover, his letters, books, and clothes were seized, and he himself was sent to London, and imprisoned in the Marshalsea. The bishop of Ross, full of apprehensions, applied to lord Cobham, the warden of the cinque-ports, who was friendly to the duke of Norfolk; and, obtaining by his means the packet of despatches from Ridolphi, substituted another in its place, which contained letters of no danger or usefulness. He also sent intelligence of this manœuvre to Bailly, and admonished him to preserve a profound silence. This simple and unpractised agent had, however, excited suspicions by the symptoms of terror he had exhibited upon being taken, and by exclaiming that the despatches he brought would involve his own destruction and that of others. At his first examination he confessed nothing; but being sent to the tower, and put upon the rack, he revealed his conversations with Ridolphi, and declared that the despatches which he had brought had been delivered to the bishop of Ross. An order was granted for taking the bishop into custody. Having been aware, however, of his perilous situation, his house was searched in vain for treasonable papers; and he thought to screen himself from answering any interrogatories under the sanctity of his character as the ambassador of an independent princess. An unexpected incident excited in the meanwhile new suspicions. Mary being desirous of transmitting 2000 crowns to lord Herries, to advance her interests in Scotland, the duke of Norfolk undertook to convey it to him with safety. He entrusted it to the charge of his confidants Hickford and Barker, who putting it into a bag with despatches from their master to lord Herries, ordered a servant called Brown to carry it to Bannister; who, being at this time on the border, could forward it to Scotland. Brown, suspicious or corrupted, instead of proceeding on his errand, carried the bag and its contents to lord Burleigh. The

privy council, deeming it treason to send money out of the realm for the use of the friends of Mary, whom they affected to consider as enemies, ordered Hickford and Barker to be apprehended. The rack extorted from them whatsoever they knew to the prejudice of their master. Hickford gave intelligence of the fatal communications from Mary; which he had villanously preserved in opposition to the orders given to him. All the proceedings between the queen of Scots, the duke of Norfolk, the bishop of Ross, and Ridolphi, were brought to light. A guard was placed upon the house of the duke to prevent his escape. Sir Ralph Sadder, Sir Thomas Smith, Sir Henry Nevil, and Dr. Wilson, were commissioned to examine him; and, in the belief that the papers and letters so often alluded to had been destroyed, he denied that he had any concern in the affairs of the queen of Scots, or any knowledge of them. He was committed to the tower a close prisoner. Bannister by this time was taken; and he confirmed the relations of Hickford and Barker. In the course of their discoveries, the earls of Arundel and Southampton, lord Cobham, Mr. Thomas Cobham, his brother, Sir Thomas Stanley, Sir Henry Percy, and other gentlemen who were friendly to the queen of Scots and the duke of Norfolk, were apprehended and ordered to be lodged in different prisons; and the rack, and the expectation of a pardon, drew from them the fullest confessions. The duke was unable to defend himself. The concurring testimonies of his friends and servants, with the papers, which he fondly imagined had been burnt, were communicated to him. He was overwhelmed with amazement, and exclaimed that he had been betrayed. He made ample acknowledgments of his guilt, and had no hope but in the mercy of his sovereign. By the confession of the duke himself, and from all the enquiries which had been made by the ministers of Elizabeth, it appeared obvious that the bishop of Ross had been the principal contriver of the conspiracy. Ridolphi had acted under his direction, and he had inspirited the duke of Norfolk. He had even advised that nobleman to put himself at the head of a select band to seize the person of Elizabeth. In his examinations the bishop was treated with great rigor and insult. But he made an able defence, and peemptorily refused to make any answer to interrogatories. The counsellors of Elizabeth were disturbed with his obstinacy; and, having told him that the rack would soon render him more pliant, he was ordered into close keeping in a dark apartment of the tower. In a few days four privy counsellors, the lord admiral, lord Burleigh, Sir Francis Knollys, and Sir Thomas Smith, went to the tower, and caused him to be brought to them to the lieutenant's lodging. After having assured him that he was charged by all the prisoners as the principal contriver of the conspiracy, they insisted that he should explain fully the part he had acted. The confessions of the duke of Norfolk and his servants, of the lord Lumley, Sir Thomas Stanley, and other gentlemen, with the despatches of the queen of Scots, were set before him. They now protested upon their honor that, if he would make a free and open declaration of his proceed-

ings, it should neither be employed against him self, nor any other person: but that, if he should continue resolute in refusing to give this satisfaction to their queen, she would absolutely consider him as a private person, and order him to be tried and executed as a traitor. In this extremity he accepted the conditions, and disclosed minutely all the transactions of the principal parties in the conspiracy. But, while he described the offences of his mistress, the duke of Norfolk, and himself, he made many apologies for their conduct. It was natural, he said, for the queen of Scots to exert her most strenuous endeavours to recover her freedom and crown; and the methods she adopted to obtain her purposes ought to be considered in connexion with the arts of Elizabeth, who pertinaciously denied her access to her presence, who kept her a close prisoner, in contempt of all the principles of humanity and justice, and who afforded an open and powerful assistance to her enemies. The duke of Norfolk he was earnest to excuse, on the foundation of the advances which had been made in his marriage with the queen of Scots. Their plighted love, and their engagements, did not allow him to forsake her. As for himself, he was her ambassador and her servant; and, being highly indebted to her generosity and kindness, he could not abandon her in captivity and distress, without incurring the guilt of the most sinful treachery and ingratitude. The daring proposal he had made to seize the person of Elizabeth was the point, he observed, which seemed to press upon him the most severely: and he entreated them to believe that he had moved it only with the view of trying the courage of the duke of Norfolk. The privy counsellors of Elizabeth were now in possession of all the evidence they could expect. Norfolk was admonished to prepare for his trial; and bishop Lesley perceived that, though he might escape with his life, he would never more be permitted to reside in England as an ambassador or friend of the queen of Scots. The defeat of the duke of Norfolk's conspiracy was a blow to Mary which she could never recover. Her most faithful friends were languishing in prisons upon her account; she had no longer the counsels of the bishop of Ross; and the Spanish ambassador, who had entered into her concerns with an unscrupulous cordiality, had been ordered to withdraw from England. The trial and condemnation of Norfolk soon followed, and plunged her into the most calamitous distress.

The massacre of the Protestants at Paris in 1572 proved also extremely detrimental to queen Mary. It was interpreted to be a consequence of the confederacy which had been formed at Bayonne for the extermination of the reformed. The Protestants were every where transported with rage against the papists. Elizabeth prepared herself against an attack from the Roman Catholic powers; and was haunted with the notion that they meant to invade her kingdom, and to give it to the queen of Scots. Her ambassador at Paris, Sir Francis Walsingham, augmented her apprehensions and terror. He compared her weakness with the strength of her enemies, and assured her that, if they should

possess themselves of Scotland, she would soon cease to be a queen. He represented Mary as the great cause of the perils that threatened her personal safety and the tranquillity of her kingdom; and, as violent diseases required violent remedies, he scrupled not to counsel her to unite Scotland to her dominions, and to put to death a rival whose life was inconsistent with her security. The more bigoted protestants of Scotland differed not widely in their sentiments from Sir Francis; while the more moderate were still more attached to their religion than to Mary; and, amidst the indignation and horror into which the subjects of Scotland were thrown by the sanguinary outrages of Charles IX. and Catharine de Medicis, they surveyed the sufferings of their sovereign with a diminished sympathy. This year the regent, finding himself beset with difficulties which he could not overcome, and the affairs of the nation involved into confusion from which he could not extricate them, died of melancholy, and was succeeded by the earl of Morton. During the regency of the earl of Mar, a remarkable innovation took place in the church, which deserves to be particularly explained, being no less than the introduction of Episcopacy instead of the Presbyterian form of worship.

While the earl of Lennox was regent, the archbishop of St. Andrew's was put to death, because he was strongly suspected to have had some concern in the death of the earl of Murray; after which the earl of Morton procured a grant of the temporalities of that see. Out of these he allotted a stipend to Mr. John Douglas, a Protestant clergyman, who took upon him the title of archbishop. This excited censure and murmurs. In the language of the times, it was pronounced to be a profanation of the kirk, and a high contempt of God; it underwent the scrutiny of the ministry in complaints to the regent; and a commission of privy-counsellors and clergymen was appointed, in the name of the king, to enquire into it, and to reform and improve the policy of the church. This commission, upon the part of the privy council, consisted of the earl of Morton, the lord Ruthven, Robert abbot of Dunfermline, Mr. James Macgill, Sir John Ballenden, and Colin Campbell of Glenorchie; and, upon the part of the church, were Messrs. John Erskine of Dun, John Winram, Hay, Lindsay, Pont, and John Craig. The consultations and debates were long; but the influence of the earl of Morton directed their determinations. It was resolved that, till the majority of the king, or till the wisdom of the three estates should be consulted, the titles of archbishop and bishop should continue as in the times which preceded the reformation; that a chapter of learned ministers should be annexed to every metropolitan or cathedral seat; that the sees, as they became vacant, should be given to those of the Protestant ministry who were most eminent for their qualifications; that the archbishops and bishops should exercise no higher jurisdiction than was permitted to superintendants; and that they should be subject to the control of the general assemblies of the church; that all abbots, priors, and other inferior prelates presented to

benefices, should be examined by the bishop of the diocese; and that their fitness to represent the church in parliament should be enquired into; that the king and the regent should recommend qualified persons to vacant bishoprics; that the elections of them should be made by the chapters of the respective cathedrals; that all benefices with cure under prelacies should be disposed to officiating ministers; and that the bishops and superintendants, upon the ordination of ministers, should exact an oath from them to recognise the authority of the king, and to pay canonical obedience to their ordinary in all things that were lawful. By these artful regulations the earl of Morton did not mean solely to consult his own rapacity or that of the nobles. The exaltation of the Protestant church to be one of the three estates was a consequence of them; and, the clergy being the strenuous enemies of Mary, he might by their means secure a decided influence in parliament. The earl of Mar, as regent, giving his sanction to the proceedings of the commission, they were carried into practice. The delusive expectation of wealth, which this revival of episcopacy held out to the ministry, was flattering to them; and they bore with tolerable patience this severe blow that was struck against the religious policy of Geneva. Mr. John Douglas was elected, notwithstanding the opposition made by John Knox and other ecclesiastics, who stood up for the rules established at the reformation. He was inaugurated by the bishop of Caithness, Mr. John Spotswood, and Mr. David Lindsay, who, violating the book of discipline, communicated to him his admission by the imposition of hands. This was a singular triumph of episcopacy; yet Douglas was in a very advanced age; and his mental qualifications, which had never been eminent, were in a state of decay. A general assembly, held at St. Andrews, considering the new regulations, appointed commissioners to go to John Knox, who was indisposed, and to consult with him whether they were agreeable to the word of God. But from the arts of the nobles, or from the sickness of Knox, this conference was not carried into execution. In a general assembly, however, which met at Perth, the new polity was reported and examined. The titles of archbishop, dean, arch-dean, chancellor, and chapter, were excepted against as popish distinctions. A wish was expressed that they might be exchanged for titles less profane and superstitious; and a unanimous protestation was made that the new polity was merely a temporary expedient, and should only continue till a more perfect order should be obtained from the king, the regent, and the nobility. This tolerating resolution left the new polity in its full force; and a foundation was now established for the laity to partake in the profits of bishoprics. The simoniacal pacton of Morton and Douglas was not long singular. Mr. James Boyd was appointed to the archbishopric of Glasgow, James Paton to the bishopric of Dunkeld, and Mr. Andrew Graham to the see of Dumblain; these compromising ecclesiastics, upon being allowed competencies to themselves, gratified their noble friends with a proportion of their revenues. The people, however, approved not

this simoniacal spirit of traffic; and the bishops of the new polity were treated openly with reproach or ridicule. The year 1572 is remarkable for the death of John Knox, whose mistaken zeal had contributed to bring upon the queen many of those misfortunes with which she was now oppressed.

Neither by his death, however, nor by the change of the regency, could she now be relieved. The earl of Morton was so much devoted to Elizabeth that he received particular instructions from her how to guide the young king. His elevation, indeed, gave the finishing stroke to the queen's affairs. He employed himself with success in dividing her party among themselves, and induced the duke of Chatelherault and the earl of Huntly to forsake her. As for Elizabeth, she was bent on putting Mary to death; but, as no crime could be alleged against her in England, she thought it proper that she should be carried back to suffer death in her own dominions. This proposal, however, was rejected; and the friends who remained true to Mary once more began to indulge themselves in hopes of succors from France. New misfortunes, however, awaited them. The castle of Edinburgh, which had hitherto been held for the queen by Kirkaldy of Grange, was obliged to surrender to an English army commanded by Sir William Drury. Kirkaldy was solemnly assured by the English commander of his life and liberty; but Elizabeth violated this capitulation, and commanded him to be delivered up to the regent; 100 of his relations offered to become vassals to Morton, and to pay him 3000 merks yearly, if he would spare his life; but in vain: Kirkaldy and his brother Sir James were hanged at Edinburgh. Maitland of Lethington, who was taken at the same time, was poisoned in the prison-house of Leith. The jealousy of Elizabeth did not diminish with the decline of Mary's cause. She now treated her with more rigor than ever, and patronised Morton in all the enormities which he committed against her friends. Lesly, bishop of Ross, had been long imprisoned in England, on account of his concern in the duke of Norfolk's conspiracy. Morton earnestly solicited the queen to deliver him up, and would undoubtedly have put him to death; but, as he had acted in the character of ambassador from Mary, he was suffered to depart for France. When he arrived there he endeavoured in vain to stir up the emperor, the pope, and the duke of Alva, to exert themselves in behalf of the queen of Scotland; and in 1574 the misfortunes of his royal mistress were farther aggravated by the death of Charles IX. of France, and her uncle the cardinal of Lorraine. The regent, in the mean time, ruled with the most despotic sway. He twice coined base money in the name of his sovereign; and, after putting it into circulation the second time, he issued orders for its passing only for its intrinsic value. The duke of Chatelherault happening to die this year, the regent took every method of ruining all those of his name and family. He committed to prison all the Hamiltons, and every person of distinction who had fought for the queen at the battle of Langside, and compelled

them to buy their liberty at an exorbitant price. He instigated Douglas of Lochleven to assassinate lord Arbroath, and it was with difficulty that the latter escaped the ambush laid for him. Reid, bishop of Orkney, having left his estate to charitable uses, the regent prohibited the execution of the will, and took upon himself the administration. To be rich was a sufficient crime to excite his vengeance. He entered the warehouses of merchants, and confiscated their property; and, if he wanted a pretence to justify his conduct, the judges and lawyers were ready at his call.

In this disastrous period the clergy augmented the general confusion. Andrew Melvil had lately returned from Geneva; and, the discipline of its assembly being considered by him as the most perfect model of ecclesiastical polity, he was much offended with the introduction of episcopacy into Scotland. His learning was considerable, and his skill in languages profound. He was fond of disputation, violent, and pertinacious. The Scottish clergy were in a humor to attend to him; and his merit was sufficient to excite their admiration. Instigated by him, John Drury, one of the ministers of Edinburgh, called in question, in a general assembly, the lawfulness of the bishops, and the authority of chapters in electing them. Melvil, after commending his zeal and his motion, declaimed concerning the flourishing state of the establishment of Geneva; and, having recited the opinions of Calvin and Beza upon ecclesiastical government, maintained that there should be no office-bearers in the church whose titles were not in the book of God. He affirmed that the term bishop was no where to be found in it in the sense in which it was commonly understood, as Christ allowed not any superiority among ministers. He contended that Christ was the only lord of his church, and that the ministers of the word were all equal in degree and power. He urged that the bishops, beside being unlawful, had grown unseemly with corruptions; and that, if they were not removed out of the church, it would fall into decay, and endanger the interests of religion. His sentiments were received with flattering approbation; and, though the archbishop of Glasgow, with the bishops of Dunkeld, Galloway, Brechin, Dumblain, and the Isles, were present in this assembly, they ventured not to defend their vocation. It was resolved that the name of bishop conferred no distinction or rank, and that the office was not more honorable than that of the other ministers. The episcopal estate in the meanwhile was watched with anxious observation; and faults of every kind, which were found in individuals, were charged upon the whole order. In a new assembly this subject was again canvassed. It was moved, whether bishops, as constituted in Scotland, had any authority for their functions from the Scriptures? After long debates, it was thought prudent to avoid an explicit determination of this important question. But a confirmation was bestowed upon the resolution of the former assembly; and it was established as a rule, that every bishop should make choice of a particular church within his diocese, and should

actually discharge the duties of a minister. The regent, disturbed with these proceedings of the brethren, was disposed to amuse and to deceive them. He sent a messenger to advise them not to disfigure the established forms; adding that, if their aversion from episcopacy was insurmountable, it would become them to think of some other mode of ecclesiastical government. The assembly, taking the advantage of this message, intimated to him that they would frame a lasting platform of polity, and submit it to the privy-council. They appointed accordingly a committee of the brethren for this purpose; and in a short time Messrs. David Lindsay, James Lawson, and Robert Pont, were deputed to wait upon the regent with a new scheme of ecclesiastical government. The regent, taking from them their schedule, replied that he would appoint certain persons of the privy council to confer with them. A conference was even begun upon the subject, but, from his arts or the public troubles, no advances were made in it. This year the earl of Bothwell died in Denmark; and in his last moments is said to have confessed that he was guilty of the king's murder, revealed the names of the persons who were his accomplices, and, with the most solemn protestations, declared the honor and innocence of the queen. His confession was transmitted to Elizabeth by the king of Denmark.

The regent still continued his enormities, till, having rendered himself obnoxious to the best part of the nobility, he was, in 1577, compelled to resign his office into the hands of James VI.; but, as the king was then only twelve years of age, a general council of twelve peers was appointed to assist him in the administration. Next year, however, the earl of Morton having gained the favor of the young king, procured the dissolution of this council; and thus, being left the sole adviser of the king, he hoped to be raised to his former greatness. This could not be done, however, without keeping the king in a kind of captivity, so that nobody could have access to him but himself. The king, sensible

of his situation, sent a despatch to the earls of Argyle and Athol, intreating them to relieve him. An army for this purpose was soon raised, and Morton's partisans were in danger of being defeated, had not the opposite party dreaded the vengeance of Elizabeth, who was resolved to support the earl of Morton. In consequence of this a negotiation was entered into, by which it was agreed that the earl of Argyle with some others should be admitted into the king's council; and that four noblemen should be chosen by each party to consider of some proper method of preserving tranquillity in the nation. This pacification did not greatly diminish the power of Morton. He soon got rid of one of his principal antagonists, the earl of Athol, by poisoning him at an entertainment; after which he again gave a loose rein to his resentments against the house of Hamilton, whom he persecuted in the most cruel manner. By these means he drew upon himself a general hatred; and he was supplanted in the king's favor by the lord d'Aubigny, who came from France in 1579, and was created earl of Lennox. In 1580 Morton was

suspected of an intention to deliver up the king to Elizabeth, and a guard was appointed to prevent any attempts of this kind. The queen or England endeavoured to support her zealous partisan, but without effect. He was tried, condemned, and executed, for being concerned in the murder of Darnley. At the place of execution it is said that he confessed his guilt. It is certain that he acknowledged himself privy to the plot formed against the life of the king; and when one of the clergymen attending him before his execution observed that by his own confession he merited death in foreknowing and concealing the murder, he replied, 'Ay but, Sir, had I been as innocent as St. Stephen, or as guilty as Judas, I must have come to the scaffold. Pray, what ought I to have done in this matter? You knew not the king's weakness. If I had informed him of the plot against his life, he would have revealed it even to his enemies and those concerned in the design; and I should, it may be, have lost my own life, for endeavouring to preserve his.'

The elevation of king James, and the total overthrow of Morton, produced no beneficial consequences to the unfortunate Mary. In 1581 she addressed a letter to Castelnau, the French ambassador, in which she complained that her body was so weak, and her limbs so feeble, that she was unable to walk. Castelnau therefore intreated Elizabeth to mitigate the rigors of her confinement; which being refused, the latter had thoughts of resigning her claims to the crowns both of England and Scotland into the hands of her son, and even of advising him to use every effort in his power to establish his claim to the English crown as preferable to that of Elizabeth. But, being apprehensive of danger from this violent method, she again contented herself with sending to the court of England ineffectual memorials and remonstrances. Elizabeth, instead of taking compassion on her situation, assiduously encouraged every kind of disorder in the kingdom, on purpose to have the queen more and more in her power. Thus, the Scottish malcontents finding themselves always supported, a conspiracy was at last entered into, the design of which was to hold James in captivity, and to overthrow the authority of Arran and Lennox, who were now the principal persons in the kingdom. The chief actors in this were the earls of Gowrie, Mar, and Glencairn, the lords Lindsay and Boyd, with the masters of Glamis and Oliphant. Through the youth and imbecility of the king, they easily accomplished their purpose; and, having got him in their power, they promised him his liberty provided he would command Lennox to depart the kingdom. This was accordingly done; but the king found himself as much a prisoner as before. The more effectually to detain him in their custody, the rebels constrained him to issue a proclamation, wherein he declared himself to be at perfect liberty. Lennox was preparing to advance to the king's relief with a considerable body of forces, when he was disconcerted by the king's peremptory command to leave Scotland; upon which he retired to Dumbarton, to wait for a more favorable opportunity. The earl of Arran, being more forward,

was committed to close custody for some time, but afterwards confined only in his house of Kinneil. The rebels took upon them the title of lords for the reformation of the state. The clergy, who had all this time been exceedingly averse to episcopacy, now gave open countenance to the lords of the reformation. On the 13th of October, 1582, they made a solemn act by which the raid of Ruthven, as the capture of the king was called, was deemed a service most acceptable to all who feared God, respected the true religion, and were anxious for the preservation of the king and state; and every minister was commanded to declaim from his pulpit upon the expediency of this measure, and to exhort the people to concur with the lords in prosecuting the full deliverance of the church, and the perfect reformation of the commonwealth. Not satisfied with this, the conspirators got their proceedings approved by the states of Scotland, as a good, a thankful, and a necessary service to the king. At the same time it was enacted that no suit civil or criminal of any kind should ever be instituted against the persons concerned in it. Soon after this Lennox took his leave of Scotland, and sailed to France, where he died. The unfortunate Mary was driven to despair when she heard that her son was taken prisoner by rebels who had been instigated by Elizabeth. In this distress she addressed a most spirited letter to Elizabeth, in which she at once asserted her own innocence, and set forth the conduct of Elizabeth herself in such language as must have put the most impudent of her adversaries to the blush. Elizabeth had recourse to her usual arts of treacherous negotiation. New terms were proposed to Mary, who would gladly have submitted almost to any thing to procure her freedom. It was proposed, as had often been done before, to associate the queen of Scots with her son in the government; but as this was to be referred to the king, who was in the hands of Elizabeth's friends, and to the parliament, who were under the power of the same faction, it is easy to see that no such association ever could take place, or indeed was ever intended. After the death of Lennox, the conspirators apprehended no further danger, little supposing that a prince so young and unexperienced could deliver himself from captivity. This, however, in 1583, he effected in the following manner. A convention of the estates had been summoned to meet at St. Andrews; James, whom the earl of Arran, notwithstanding his confinement at Kinneil, had found means to instruct, pretended a desire of visiting his grand uncle the earl of March, who resided at St. Andrews, and was for that purpose permitted to repair thither a few days before the convention. The better to deceive the earls of Gowrie, Angus, and Mar, who attended him, he took up his lodgings in an old inn, which was quite open and defenceless. But, having expressed a desire to see the castle of St. Andrews, he was admitted into it; and colonel Stuart, who commanded the castle, after admitting a few of his retinue, ordered the gates to be shut. The earls of Argyle, Marischal, Montrose, and Rothes, who were in concert with the king, hastened to make him an offer of their swords. The opposite faction, being unprepared

for hostilities, were filled with consternation. Of all the conspirators, the earl of Gowrie alone was admitted into the king's presence, by the favor of colonel Stuart, and received his pardon. The earls of March, Argyle, Gowrie, Marischal, and Rothes, were appointed to be a council for assisting the king in the management of his affairs; and soon after this James set out for Edinburgh. The king no sooner found himself at liberty, than, by the advice of his privy council, he issued a proclamation of mercy to the conspirators; but they, flattering themselves with the hopes of support from Elizabeth, obstinately refused to accept of his pardon. In consequence of this they were denounced rebels. Elizabeth gave them all the encouragement she could, and the clergy uttered the most seditious discourses against the king and government; but, while they railed against popery, they themselves maintained openly the distinguishing tenet of popery, namely, that the clerical was entirely independent of the civil power. At last the rebels broke forth into open hostilities; but, by the vigilance of Arran, the earl of Gowrie, who had again begun his treasonable practices, was committed to custody; while the rest, unable to oppose the king, who appeared against them with a formidable army, were obliged to fly into England, where Elizabeth with her usual treachery protected them. The earl of Gowrie suffered as a traitor; but the severity exercised against him did not intimidate the clergy.

The clergy still continued their rebellious practices, until, the king being informed that they were engaged in a correspondence with some of the fugitive lords, citations were given to their leaders to appear before the privy-council. Not daring to appear they fled to England; and on the 20th of May, 1584, the king summoned a convention of the estates, on purpose to humble the pride of the church. In this assembly the raid of Ruthven was declared to be rebellion, according to a declaration which had formerly been made by the king. And, as it had grown into a custom with the promoters of sedition to decline the judgment of the king and the council, when called before them to answer for rebellious or contumelious speeches, uttered from the pulpit or in public places, an ordination was made, asserting that they had complete powers to judge concerning persons of every degree and function, and declaring that every act of opposition to their jurisdiction should be accounted treason. It was enacted that the authority of the parliament was full and supreme; and that every attempt to diminish, alter, or infringe its power, dignity, and jurisdiction, should be held and punished as treason. All jurisdictions and judgments, all assemblies and conventions, not approved of by the king and the three estates, were prohibited. It was ordained that the king might appoint commissioners to examine into the delinquencies of clergymen, and, if convicted, to deprive them of their benefices. It was commanded that clergymen should not for the future be admitted to the dignity of lords of session, or to the administration of any judicature civil or criminal. An ordination was made which subjected to capital punishment all persons who

should utter false and slanderous speeches in sermons, declamations, or familiar discourse, to the reproach and contempt of the king, his parents, and progenitors. It was further ordered that a guard, consisting of forty gentlemen, with a yearly allowance to each of £200, should continually attend upon the king. This parliament, which was full of zeal for the crown, did not overlook Buchanan's History of Scotland, which had excited a very general attention. It commanded that all persons who were possessed of copies of his history, and of his Treatise on the Scottish government, should surrender them within forty days, under the penalty of £200, that they might be purged of the offensive and extraordinary matters they contained. This stroke of tyranny was furious and ineffectual; foreign nations, as well as his own countrymen, were filled with the highest admiration of Buchanan. His writings were multiplied in every quarter; and the severity exercised against them only served the more to excite curiosity, and to diffuse his reputation.

While the parliamentary acts, which struck against the importance of the church, were in agitation, the ministers deputed David Lindsay to solicit the king that no statutes should pass which affected the ecclesiastical establishment, without the consultation of the general assembly. But the earl of Arran, having intelligence of this commission, defeated it, by committing Lindsay to prison as a spy for the discontented nobles. Upon the publication, however, of these acts by the heralds, Robert Pont minister of St. Cuthberts, and one of the senators of the court of session, with Walter Balcanqual, protested formally in the name of the church, that it dissembled from them, and that they were consequently invalid; after which they fled, and were proclaimed traitors. By letters and pamphlets, artfully spread among the people, their passions were roused against the king and his council. All the clergy were commanded to subscribe a declaration, of the supremacy of the king over the church, and their submission to the authority of the bishops. On this, the national ferments increased in violence. Many ministers, refusing to subscribe, were deprived of their livings. It was urged that to make the king supreme over the church was no better than to set up a new pope, and to commit treason against Jesus Christ; that to overthrow assemblies and presbyteries, and to give dominion to bishops, was not only to overset the established polity of the church, but to destroy religion itself; for the bishops were the slaves of the court, schismatical in their opinions, and depraved in their lives. It was urged that the ministers alone were entrusted with ecclesiastical functions, and with the sword of the word; and that it was most wicked to imagine that Jesus Christ had ever committed the keys of the kingdom of heaven to civil magistrates. While the clergy were thus impotently venting their wrath, Elizabeth alarmed beyond measure at this sudden revolution, and terrified by a confession extorted by the rack from one Francis Throgmorton, concerning a combination of the Catholic princes to invade England, began to treat Mary in a more severe manner than

usual; and having gained over the earl of Arran, the only man of activity in Scotland, she resolved on further extremities. The Roman Catholics, at home and abroad, were inflamed against her with a boundless and implacable rage: there prevailed many rumors of plots and conspiracies against her kingdom and life. Books were published which detailed her cruelties and injustice to Mary in the most indignant language of reproach, and which recommended her assassination as a most meritorious act: the earl of Arran had explained to her the practices of the queen of Scots with her son, and had discovered the intrigues of the Catholic princes to gain him to their views. While her fears were thus excited, circumstances happened which confirmed them, and provoked her to give full scope to her malignity. Crichton, a Scottish Jesuit, passing into his own country, was taken by Netherland pirates; and some papers which he had torn in pieces and thrown into the sea, being recovered, were transmitted to England. Sir William Wade put them together, and they demonstrated that the invasion of England was concerted by the pope, the king of Spain, and the duke of Guise. About this time, too, a letter was intercepted from Mary to Sir Francis Englefield. She complained in it that she could have no reliance upon the integrity of Elizabeth, and that she expected no happy issue to any treaty which might be opened for her restoration and liberty. She urged the advancement of the great plot; she intimated that the prince her son was favorable to the design, and disposed to be directed by her advice; she entreated that every delicacy with regard to her own state and condition should be laid aside without scruple; and she assured him that she would most willingly suffer perils and dangers, and even death itself, to give relief to the oppressed children of the church. These discoveries, so exasperating to Elizabeth, were followed by a deep and general consternation. The terror of an invasion spread with rapidity over England; and the Protestants, while they trembled for the life of their champion, were still more alarmed with the dangers which threatened their religion. In this state of perplexity and distraction, the counsellors of Elizabeth, who had been her instruments in persecuting the queen of Scots, and of her severities to the Roman Catholics, were sensible that her greatness and safety were connected with their own; and they concurred in indulging her fears, jealousies, and resentments. It was resolved that Mary should perish. An association was formed, to which persons of every condition and degree were invited, for the preservation of the life of Elizabeth, which it was affirmed was in danger, from a conspiracy to advance some pretended title to the crown; and its members vowed, by the majesty of God, to employ their whole power, bodies, lives, and goods, in her service; to withstand all persons, of whatsoever nation or rank, who should attempt in any form to invade and injure her safety or her life, and to prosecute to destruction any pretended successor, by whom, or for whom, the assassination of Elizabeth should be attempted or committed. The earl of Leicester was the patron of

his association; and the whole influence of Elizabeth and her ministers was exerted to multiply the subscriptions. A combination so resolute and so fierce, which pointed to the death of Mary, which threatened her titles to the crown of England, and which might defeat the succession of her son, could not fail to excite in her bosom the bitterest anxiety and perturbation. Weary of her sad and long captivity, broken down with calamities, dreading afflictions still more cruel, and willing to take away from Elizabeth every possible pretence of severity, she now framed a scheme of accommodation, to which no decent or reasonable objection could be made. By Naw, her secretary, she presented it to Elizabeth and her privy-council. She protested in it that, if her liberty should be granted to her, she would enter into the closest amity with Elizabeth, and pay an observance to her above every other prince of Christendom; that she would forget all the injuries with which she had been loaded, acknowledge Elizabeth to be the rightful queen of England, abstain from any claim to her crown during her life, renounce the title and arms of England, which she had usurped by the command of her husband the king of France, and reprobate the bull from Rome which had deposed the English queen. She likewise protested that she would enter into the association which had been formed for the security of Elizabeth; and that she would conclude a defensive league with her, provided that it should not be prejudicial to the ancient alliance between Scotland and France; and that nothing should be done during the life of the English queen, or after her death, which should invalidate her titles to the crown of England, or those of her son. As a confirmation of these articles, she would consent to stay in England for some time as a hostage; and, if she was permitted to retire from England, she would surrender proper and acceptable persons as sureties. She also engaged that she would make no alterations in Scotland; and that, upon the repeal of what had been enacted there to her disgrace, she would bury in oblivion all the injuries she had received from her subjects; that she would recommend to the king her son those counsellors who were most attached to England, and that she would employ herself to reconcile him to the fugitive nobles: that she would take no steps about his marriage without acquainting the queen of England; and that, to give the greater firmness to the proposed accommodation, he should be called as a party to it: in fine, that she would procure the king of France and the princes of Lorraine to be guarantees for the performance of her engagements. Elizabeth, with great hypocrisy, professed the greatest satisfaction and joy at these overtures. She made no advances, however, to conclude an accommodation with Mary; and her ministers and courtiers exclaimed against lenient and pacific measures. It was insisted that the liberty of the Scottish queen would be the death of Elizabeth: that her association with her son would be the ruin both of England and Scotland; and that her elevation to power would extend the empire of popery, and give a deadly blow to the doctrines of the reformation. In the

mean time an act of attainder had passed against the fugitives nobles, and their estates and honors were forfeited to the king; who, not satisfied with this, sent Patrick master of Gray to demand a surrender of their persons from the queen of England. As this ambassador had resided some time in France, and been intimate with the duke of Guise, he was recommended to Mary: but being a man of no principle he was easily corrupted by Elizabeth; and, while he pretended friendship to the unfortunate queen, discovered all that he knew of the intentions of her and her son. The most scandalous falsehoods were forged against Mary; and, the less she was able to execute, the more she was said to design. That she had an amour with her keeper the earl of Shrewsbury, as was now reported, was possible, but of this there was no proof. This, however, could be no treason against Elizabeth: yet, on account of this, Mary was committed to the charge of Sir Amias Paulet and Sir Drue Drury, zealous puritans, who would treat her with that strict severity which might drive her to despair and induce her to commit some rash action.—The earl of Leicester, said to be Elizabeth's paramour, even ventured to send assassins, on purpose, by the murder of Mary, at once to deliver his mistress from her fears. But the new keepers of the castle, though religious bigots, were men of strict probity, and rejected with scorn such an infamous proposal.

In 1585 Mary began to feel all the rigors of a severe imprisonment. She had been removed from Sheffield to the castle of Tutbury; and under her new keepers she experienced a treatment which was in the highest degree unjust, disrespectful, and acrimonious. Two apartments or chambers only were allotted to her, and they were small and inconvenient, meanly furnished, and so full of apertures and chinks that they could not protect her against the inclemencies of the weather. The liberty of going abroad for exercise was denied to her. She was assailed by rheumatisms and other maladies; and her physician would not undertake to effect a cure unless she should be removed to a more commodious dwelling. Applications for this purpose were often made, but uniformly rejected. Here, however, her own afflictions did not extinguish in her mind her sensibility for the misfortunes of others; and she often indulged herself in the satisfaction of employing a servant to go through the village in search of objects of distress. But her inhuman keepers, envying her this pleasure, commanded her to abstain from it. Imputing their rigor to a suspicious fidelity, she desired that her servant might, on these occasions, be accompanied by one of the soldiers of their guard, or by the constable of the village. But they would not alter their prohibition. To insult her the more, the castle of Tutbury was converted into a common jail: and a young man, whose crime was the profession of the Romish religion, was committed to a chamber which was opposite to her window, that he might be persecuted in her sight. He was dragged every morning to join in the Protestant worship; and, after enduring several weeks this extraordinary violence to his conscience, was strangled, it is said, without any

form of law. Mary remonstrated to Elizabeth against indignities so shocking and so horrible; but in vain. In the midst of her misfortunes, however, she had still solaced herself with hope, from the exertions of her son. He had hitherto behaved with a becoming cordiality; and, in the negociation which she had opened with him for her association in the government, he had been studious to please her. He had informed her that he found the greatest comfort in her maternal tenderness, and that he would accomplish her commands with humility and expedition; that he would not fail to ratify her union and association with him in the government; that it would be his most earnest endeavour to reconcile their common subjects to that measure; and that she might expect from him, during his life, every satisfaction and duty which a good mother could promise to herself from an affectionate and obedient son. But these fair blossoms of kindness were all blasted by the arts of Elizabeth. The master of Gray had now obtained an ascendant over James. He delayed to ratify her association in the government; and he even appeared unwilling to press Elizabeth for her liberty. The master of Gray had convinced him that, if any favor was shown to Mary by the queen of England, it would terminate in his humiliation. He assured him that, if his mother were again to mount the Scottish throne, her zeal for Popery would induce her to seek a husband in the house of Austria; that she would dissolve his association with her in the government, on the pretence of his attachment to the reformed doctrines; and that he would not only lose the glory of his present power, but endanger his succession. Mary expostulated with him by letter upon the timidity of his behaviour; and he returned her an answer full of disrespect. Her amazement, indignation, and grief, were infinite. She wrote to Castelnau the French ambassador to inform him of her inquietudes and anguish. 'My son,' said she, 'is ungrateful; and I desire that the king your master shall consider him no longer as a sovereign.' Elizabeth, having thus sown dissension between the queen of Scots and her son, made the best use she could of her quarrel. The pope, the duke of Guise, and the king of Spain, had concluded an alliance, called the holy league, for the extirpation of the Protestant religion all over Europe. Elizabeth was thrown into the greatest consternation by this; and the idea of a counter association among the Protestant princes of Europe immediately suggested itself. Sir Edward Wotton was deputed to Scotland; and so completely gained upon the imbecility of James that he concluded a firm alliance with Elizabeth, without making any stipulation in favor of his mother. Nay, so far was he the dupe of this ambassador and his mistress, that he was persuaded to take into his favor Archibald Douglas, one of the murderers of lord Darnley; and even appointed this assassin to be his ambassador to England. Mary, thus abandoned by all the world, in the hands of her most inveterate and cruel enemy, fell a victim to her resentment and treachery, in 1587. A plot of assassination had been formed in the spring of 1586 against the English queen; partly to rescue the Scottish princess, but chiefly

to serve the interests of the Roman Catholic religion. This conspiracy, which originated with Roman Catholic priests, was soon imparted to Babington, a person of great fortune, of many accomplishments, and who had formerly shown himself a zealous friend of queen Mary. That she had corresponded with Babington there is no doubt; but it was some years previous to the formation of this plot. A long silence had taken place between them; and Morgan, one of the English fugitives in France, and a warm friend of Mary's, in May 1586, wrote a letter to her, repeatedly, and in the most pressing manner, recommending a revival of that correspondence. In consequence of which, in her answer to Morgan, dated the 27th day of July, she informed him that she had made all apologies in her power to Babington, for not having written to him for so long a time; that he had generously offered himself and all his fortune in her cause; and that, agreeably to Morgan's advice, she would do her best to retain him in her interests; but she throws out no hint of her knowledge of the intended assassination. On the very same day she wrote likewise to Paget, another of her most confidential friends; but not a word in it with respect to Babington's scheme of cutting off the English queen. To Morgan and to Paget she certainly would have communicated her mind, and would have consulted them about the plot, had she been accessory to it. Indeed it seems to have been part of the policy of Mary's friends to keep her a stranger to all clandestine and hazardous undertakings in her favor. Morgan, in a letter of the 4th of July, expressly recommended to have no intelligence at all with Ballard, who was one of the original contrivers of the plot, and communicated it to Babington. The queen, in consequence, shut the door against all correspondence with that person. The conspiracy, which goes under the name of Babington, was detected in June: the names, proceedings, and residences of those engaged in it were then known; the life of Elizabeth was in imminent hazard: yet the conspirators were not apprehended; they were permitted to enjoy complete liberty; treated as if there had not been the least suspicion against them; and in this quiet state were they suffered to continue till August, for a period of nearly two months. The queen of Scots continued still detached from Babington and his associates. Their destruction was a small matter compared with her's. Elizabeth's ministers knew how much they had rendered themselves justly obnoxious to the Scottish princess: should she come to mount the throne of England their downfall was inevitable; from which consideration they were even more zealous than their mistress to accomplish her ruin. Of these, Sir Francis Walsingham secretary of state appears to have taken upon himself the chief management in concerting a plan of operations against the queen of Scots. His spies having early obtained the confidence of the inferior conspirators, he learned that a packet from France was intended to be conveyed by them to queen Mary, and by the hands of one Gilbert Gifford a priest, whom he had secretly gained over from their association, he wrote a letter to Sir Amias Paulet,

who had now the custody of Mary, requesting that one of his domestics might be permitted to take a bribe for conveying that packet to his captive. This was on purpose to communicate to her a letter, forged in the name of Babington, in which that conspirator was made to impart to the Scottish queen his scheme of assassination, and to claim rewards to the perpetrators of the deed. Paulet, however, to his honor, refused to act a part in this plan of villany; upon which Gifford corrupted a brewer in the neighbourhood, who put his letters to Mary in a hole in the castle-wall. By the same conveyance it was thought that Mary would answer the letters; but she never saw them, and of course no return was made. It was then contrived that answers, in the name of the queen of Scots to Gifford, should be forged and found in the hole of the wall. Walsingham, to whom these letters were carried, deciphered them by the help of one Thomas Philips, and, after exact copies were taken, they were all artfully sealed and sent off to the persons to whom they were directed. The answers which Babington made to the queen's supposed letters were carried directly to Walsingham.

A foundation for criminating Mary being thus laid, the conspirators suffered the death of traitors. The unhappy princess, eagerly watched by Paulet, and unacquainted with the late occurrences, received a visit from Sir Thomas Gorges. This envoy, as instructed by Elizabeth, surprised her when she had mounted her horse to take the pleasure of the chase. His salutation was abrupt and unceremonious; and after informing her of the discovery and circumstances of the conspiracy of Babington, he rudely charged her with a concern in it. Her astonishment was great, and she desired to return to her chamber: but this favor was refused; and after being carried from one house to another, in an anxious and perplexing uncertainty, she was committed to Fotheringay castle in Northamptonshire. Naw and Curl, her two secretaries, the former a Frenchman the latter a Scotsman, were taken into custody. Paulet, breaking open the doors of her private closet, possessed himself of her money, which amounted to only 7000 crowns. Her cabinets were sealed up; and, being sent to London, were examined in the presence of Elizabeth. They contained many despatches from persons beyond the sea, copies of letters which had been dictated by her, and about sixty tables of ciphers and characters. There were also discovered in them many despatches from English noblemen, which were full of admiration and respect. These Elizabeth concealed. Naw and Curl declared that the copies of her letters were in their hand-writing. They had been dictated by her in the French language to Naw, translated into English by Curl, and then put into cipher. They contained not any matters with which she could be criminated. It was upon the foundation of the letters which Gifford had communicated to Walsingham that her guilt was to be inferred; and with copies of these, and with an attested account of the conspiracy of Babington and his associates. Sir Edward Wotton was now dispatched to France

to accuse her to Henry III., and to explain to him the dangers to which Elizabeth was exposed from the machinations of the English exiles. The privy counsellors of Elizabeth deliberated upon the most proper method of proceeding against Mary. To some it appeared that as she was only accessory to the plot, and not the designer of it, the most eligible severity to be exercised against her was a closer and more rigorous confinement. By others, who were haunted by the terrors of Popery, it was urged that she ought to be put instantly to death by the formalities of the law. The earl of Leicester recommended it as most prudent to despatch her secretly by poison. But this counsel was rejected as mean and disgraceful. The lawyers were of opinion that she might be tried upon the statute of Edward III. respecting high treason. Elizabeth, however, and her ministers had provided a more plausible foundation for her trial. This was a parliamentary statute approving the act of association, which had been passed while Mary was in England. The next point of debate was the designation under which it was most advisable to arraign her: and it was resolved to designate her, Mary, daughter and heir of James V., king of Scotland, commonly called queen of Scots, and dowager of France. Elizabeth next appointed above forty peers, and five judges, with authority to enquire into the matters compassed and imagined against her by the Scottish princess, and to pass sentence according to the spirit and tenor of the act. Of these commissioners a great majority proceeded to the castle of Fotheringay; and, the day after their arrival, they deputed to Mary, Sir Walter Mildmay, Sir Amias Paulet, and Edward Barker a public notary, to deliver to her a letter from Elizabeth. In this letter the English queen gratified her unhappy passions, and after reproaching Mary with her crimes, informed her that her commissioners were appointed to take cognizance of them. The Scottish princess, though astonished with the project of being brought to a public trial, was able to preserve her dignity, and addressed them with a composed manner and air. 'It is a matter,' said she, 'altogether uncommon and strange that Elizabeth should command me to submit to a trial, as if I were her subject. I am an independent sovereign, and will not tarnish by any means my high birth, the princes my predecessors, and my son. Misfortunes and misery have not yet so involved me in dejection as that I am to faint and sink under this new calamity and insult. I desire that you will remember what I formerly protested to Bromley, who is now lord chancellor, and to the lord La War. To speak to me of commissioners is a vain mockery of my rank. Kings alone can be my peers. The laws of England are unknown to me; and I have no counsellors to whose wisdom I can apply for instruction. My papers and commentaries have been taken from me; and no person can have the perilous courage to appear as my advocate. I have indeed recommended myself and my condition to foreign princes; but I am clear of the guilt of having conspired the destruction of Elizabeth, or having incited any person whatsoever to destroy her. It is only by my own

words and writings that an imputation of this kind can be supported; and I am conscious, beyond the possibility of a doubt, that these evidences cannot be employed against me.' The day after she had in this manner refused to allow the jurisdiction of the commissioners, Paulet and Barker returned to her, and informed her that they had put her speech into writing, and desired to know if she would abide by it. She heard it read distinctly, acknowledged it to be rightly taken, and avowed her readiness to persist in the sentiments she had delivered. But she added there was a circumstance to which she had omitted to speak. 'Your queen,' said she 'affects in her letter to observe that I am subject to the laws of England, because I have lived under their protection. This sentiment and mode of thinking are very surprising to me. I came into England to crave her assistance and aid; and, ever since, I have been confined to a prison. The miseries of captivity cannot be called a protection, and the treatment I have suffered is a violation of all law.'

This afflicted but undaunted princess, after having thus disputed the competency and repelled the pretexts of the commissioners, was induced at last, by arguments under the insidious mask of candor and friendship, to depart from the proper and dignified ground which she had taken, and consent to that mode of trial which had been proposed. It was represented to her, by Hatton the vice-chamberlain, that by rejecting a trial she injured her own reputation and interests, and deprived herself of the only opportunity of setting her innocence in a clear light to the present and to future times. Imposed upon by this artifice, she consented to make her appearance before the judges; at the same time, however, she still protested against the jurisdiction of the court, and the validity of their proceedings. After various formalities, the lord chancellor opened the case; and was followed by serjeant Gawdry, who proceeded to explain the statute, and to demonstrate that she had offended against it. He then entered into a detail of Babington's conspiracy; and concluded by affirming 'that Mary knew it, had approved it, had promised her assistance, and had pointed out the means to effect it.' Proofs of this charge were exhibited against her, and displayed with great art. The letters were read which Sir Francis Walsingham or his emissaries had forged. Her secretaries had afforded all the necessary intelligence about the conspiracy, upon which to frame a correspondence between Mary and Babington, and upon which despatches might be fabricated in her name to her foreign friends; and the ciphers were furnished by them. But, beside these pretended letters, another species of evidence was held out against her. Babington, proud of the despatch sent to him in her name by Walsingham and Gifford, returned an answer to it; and a reply from her by the same agency was transmitted to him. Deluded, and in toils, he communicated these marks of her attention to Savage and Ballard, the most confidential of his associates. His confession and theirs became thus of importance. Nor were her letters and the confessions of these conspirators deemed

sufficient vouchers of her guilt. Her secretaries, therefore, were engaged to subscribe a declaration that the despatches in her name were written by them at her command, and according to her instructions. These branches of evidence, put together with skill, and heightened with all the imposing colors of eloquence, were pressed upon Mary. Though she had been long accustomed to the perfidious inhumanity of her enemies, her amazement was infinite. She lost not, however, her courage; and her defence was alike expressive of her penetration and magnanimity: 'the accusation preferred to my prejudice is a most detestable calumny. I was not engaged with Babington in his conspiracy; and I am altogether innocent of having plotted the death of Elizabeth. The copies of Babington's letters which have been produced may indeed be taken from originals which are genuine; but it is impossible to prove that I ever received them. Nor did he receive from me the despatches addressed to him in my name. His confession, and those of his associates, which have been urged to establish the authority of my letters to him, are imperfect and vain. If these conspirators could have testified any circumstances to my hurt, they would not so soon have been deprived of their lives. Tortures, or the fear of the rack, extorted improper confessions from them; and then they were executed. Their mouths were open to utter false criminations; and immediately were shut for ever, that the truth might be buried in their graves. It was no difficult matter to obtain ciphers which I had employed; and my adversaries are known to be superior to scruples. I am informed that Sir Francis Walsingham has been earnest to recommend himself to his sovereign by practices both against my life and that of my son; and the fabrication of papers, by which to effectuate my ruin, is a business not unworthy of his ambition. Evidence, the most clear and incontestable, is necessary to overthrow my integrity; but proofs, the most feeble and suspicious, are held out against me. Let one letter be exhibited, written in my hand, or that bears my superscription, and I will instantly acknowledge that the charge against me is sufficiently supported. The declaration of my secretaries is the effect of rewards or of terror. They are strangers; and to overcome their virtue was an easy achievement to a queen whose power is absolute, whose riches are immense, and whose ministers are profound and daring in intrigues and treachery. I have often had occasion to suspect the integrity of Naw; and Curl, whose capacity is more limited, was always most obsequious to him. They may have written many letters in my name without my knowledge or participation: may have put many things into despatches which are prejudicial to Elizabeth; and may even have subscribed their declaration to my prejudice, under the prepossession that the guilt which would utterly overwhelm them might be pardoned in me. I have never dictated any letter to them which can be made to correspond with their testimony. And what, let me ask, would become of the grandeur, the virtue, and the safety of princes, if they depended upon the writings and declarations of secretaries? Nor let it be forgotten

that, by acting in hostility to the duty and allegiance which they solemnly swore to observe to me, they have utterly incapacitated themselves from obtaining any credit. The violation of their oath of fidelity is an open perjury; and of such men the protestations are nothing. But, if they are yet in life, let them be brought before me. It argues not the fairness of the proceedings against me that this formality is neglected. I am also without the assistance of an advocate; and, that I might be defenceless and weak in the greatest degree, I have been robbed of my papers and commentaries. As to the copies of the despatches which are said to have been written by my direction to Mendoza, the lord Paget, Charles Paget, the archbishop of Glasgow, and Sir Francis Inglesfield, they are most unprofitable forgeries. For they tend only to show that I was employed in encouraging my friends to invade England. Now, if I should allow that these despatches were genuine, it could not be inferred from them that I had conspired the death of Elizabeth. I will even confess that I have yielded to the strong impulses of nature; and that, like a human creature, encompassed with dangers and insulted with wrongs, I have exerted myself to recover my greatness and my liberty. The efforts I have made can excite no blushes in me; for the voice of mankind must applaud them. Religion even cannot look to them with reproach. I have sought by every art of concession and friendship to engage my sister to put a period to my sufferings. Invited by her smiles, I ventured into her kingdom, in the pride and gaiety of my youth; and, under her anger and the miseries of captivity, I have grown into age. During a calamitous confinement of twenty years, my youth, my health, my happiness, are for ever gone. To her tenderness and generosity I have been indebted as little as to her justice; and, oppressed and agonizing with unmerited afflictions and hardships, I scrupled not to beseech the princes my allies to employ their armies to relieve me. Nor will I deny that I have endeavoured to promote the advantage and interest of the persecuted Catholics of England. My intreaties in their behalf have even been offered with earnestness to queen Elizabeth herself. But the attainment of my kingdom, the recovery of my liberty, and the advancement of that religion which I love, could not induce me to stain myself with the crimes that are objected to me. I would disdain to purchase a crown by the assassination of the meanest of the human race. To accuse me of scheming the death of the queen my sister is to brand me with the infamy which I abhor. It is my nature to employ the devotions of Esther, and not the sword of Judith. Elizabeth herself will attest that I have often admonished her not to draw upon her head the resentment of my friends by the enormity of her cruelties to me. My innocence cannot sincerely be doubted; and it is known to the Almighty God that I could not possibly think to forego his mercy, and to ruin my soul, to compass a transgression so horrible as that of her murder. My crimes are, my birth, the injuries I have been compelled to endure, and my religion. I am proud of the first; I can forgive the second; and the third is to me a

source of such comfort and hope that for its glory I will be contented that my blood shall flow upon the scaffold.' To the defence of Mary no answer was made beside stout and unsupported affirmations of the truth of the evidence produced to her prejudice. In the course of the trial, however, lord Burleigh, who was willing to discompose her, charged her with a fixed resolution of conveying her claims and titles to England to the king of Spain. She acknowledged that the Spaniard professed to have pretensions to the kingdom of England, and that a book in justification of them had been communicated to her. But she declared that she had incurred the displeasure of many by disapproving of this book; and that no conveyance of her titles had ever been executed. The trial continued during the space of two days; but the commissioners avoided to deliver their opinions. Lord Burleigh, in whose management Elizabeth chiefly confided, and whom the Scottish queen discomposed in no common degree by her ability and vigor, being eager to conclude the business, asked if she had any thing to add to what she had urged in her defence. She informed him that she would be infinitely pleased if it should be permitted to her to be heard in her justification before a full meeting of the parliament, or before the queen and her privy-council. This intimation was unexpected; but the request was rejected. The court, in consequence of previous instructions from Elizabeth, adjourned to a farther day, and appointed that the place of its convention should be the star-chamber at Westminster. It accordingly assembled there; and Naw and Curl, who had not been produced at Fotheringay castle, were now called before the commissioners. They swore that the declaration they had subscribed was in every respect just and faithful. Nothing farther remained but to pronounce sentence against Mary. The commissioners unanimously concurred in delivering it as their verdict, or judgment, that she 'was a party to the conspiracy of Babington; and that she had compassed and imagined matters within the realm of England tending to the hurt, death, and destruction of the royal person of Elizabeth, in opposition to the statute framed for her protection.' Upon the same day in which this extraordinary sentence was given the commissioners and the judges of England issued a declaration, which imported that it was not to derogate in any degree from the titles and honor of the king of Scots. The sentence against Mary was very soon afterwards ratified by the English parliament.

King James was struck with horror at hearing of the proposed execution of his mother; but that spiritless prince could show his resentment no farther than by unavailing embassies and remonstrances. France interposed in the same ineffectual manner; and on the 6th December, 1586, Elizabeth caused the sentence of the commissioners against her to be proclaimed. After this she was made acquainted with her fate, and received the news with the greatest composure, and even apparent satisfaction. Her keepers now refused to treat her with any reverence or respect. They entered her apartment with their heads covered, and made no obeisance to her.

They took down her canopy of state, and deprived her of all the badges of royalty. By these insulting mortifications they meant to inform her that she had sunk from the dignity of a princess to the abject state of a criminal. She smiled, and said, 'In despite of your sovereign and her subservient judges, I will live and die a queen. My royal character is indelible; and I will surrender it with my spirit to the Almighty God, from whom I received it, and to whom my honor and my innocence are fully known.' In this melancholy situation Mary addressed a magnanimous letter to Elizabeth, in which, without making the least solicitation for her life, she only requested that her body might be carried to France; that she might be publicly executed; that her servants might be permitted to depart out of England unmolested, and enjoy the legacies which she bequeathed them. But to this letter no answer was given. In the mean time James, who had neither address nor courage to attempt any thing in behalf of his mother, announced her situation to his bigoted subjects, and ordered prayers to be said for her in all the churches. The form of the petition he prescribed was framed with delicacy and caution, that the clergy might have no objection to it. He enjoined them to pray 'that it might please God to enlighten Mary with the light of his truth, and to protect her from the danger which was hanging over her.' His own chaplains, and Mr. David Lindsay minister of Leith, observed his command. But all the other bigoted clergy refused to prefer any petitions to the Almighty for a papist. James, shocked with their spirit of intolerance and sedition, appointed a new day for prayers to be said for Mary, and issued a stricter injunction to the clergy; and, that he might be free himself from any insult, he ordered the archbishop of St. Andrews to preach before him. The ecclesiastics persuaded John Cowper, a probationer, to occupy the pulpit designed for the archbishop. When the king entered the church he testified his surprise, but told Cowper that if he would obey his injunction, he might proceed to officiate. Cowper replied 'that he would do as the Spirit of God should direct him.' The king commanded him to retire, and the captain of his guard advanced to compel him to obedience. The enraged probationer exclaimed that this violence 'would witness against the king in the great day of the Lord;' and denounced a curse against the spectators for not exerting themselves in his defence. The archbishop, now ascending the pulpit, performed with propriety the function to which he had been called, and recommended moderation and charity to the audience. In the afternoon Cowper was cited before the privy-council; and was accompanied there by Mr. Walter Balcanqual and Mr. William Watson, two ministers remarkable for their zeal. As a punishment for his audacious petulance he was committed to the castle of Blackness; and his attendants, having distinguished themselves by an impudent vindication of him, were prohibited from preaching during the pleasure of the king. Elizabeth, in the mean while, felt the torment of miserable passions. At times she courted the sadness of solitude, and refused to be consoled

or to speak. In other seasons her sighs were frequent, and she broke out into loud and wild exclamations expressive of the state of her mind. Her subjects waited the determination of her will in distracting agitation. Her cruel ministers, who knew that it is the nature of fear to exclude pity, were industrious in inventing terrifying intelligence, and in circulating it through the kingdom; such as that the Spanish fleet had arrived at Milford Haven; that a formidable army of Scottish combatants was advancing to the capital; that the duke of Guise had disembarked many troops of veteran soldiers in Sussex; that Mary had escaped out of prison, and was collecting the English Catholics; that the northern counties had thrown aside their allegiance; and that there was a new plot to kill Elizabeth, and to reduce London to ashes. An actual conspiracy was even maliciously charged upon L'Aubespine the French resident; and he was forced to withdraw from England in disgrace. From the terrors which the ministers of Elizabeth were so studious to excite, they invariably inferred that the tranquillity of the kingdom could alone be re-established by the speedy execution of the Scottish queen. While the nation was thus artfully prepared for the destruction of Mary, Elizabeth ordered secretary Davidson to bring to her the warrant for her death. Having perused it, she observed that it was expressed in proper terms, and annexed her subscription. Though she earnestly desired the death of Mary, she was yet terrified to encounter its infamy. She was solicitous to accomplish this base transaction by some method which would conceal her consent to it. After intimating to Davidson an anxious wish that its blame should be removed from her, she counselled him to join with Walsingham in addressing a letter to Sir Amias Paulet and Sir Drue Drury, recommending it to them to manifest their love to her by shedding privately the blood of her adversary. The unlawfulness of this deed affected Davidson, and he objected to it. She repeated absolutely her injunctions, and he departed to deliver them. A letter under his name and that of Walsingham was despatched to Mary's keepers, communicating to them her purpose. Corrupted by her passions, and lost to the sensibilities of virtue, Elizabeth had now reached the last extremity of this wickedness. Though a sovereign princess, and entrusted with the cares of a great nation, she blushed not to charge her ministers to enjoin a murder—a murder connected with every circumstance that could make it most frightful and horrid. The victim for whose blood she thirsted was a woman, a queen, a relation, splendid with beauty, eminent in ability, magnanimous under misfortunes, and who had fled to her for refuge from her enemies. A wild Arab would have spared his enemy on this principle alone. Sir Amias Paulet and Sir Drue Drury, though the slaves of religious prejudices, felt an elevation of mind which reflected the greatest disgrace upon the sovereign. They considered themselves as grossly insulted by the proposal; and they assured Walsingham that the queen might command their lives and their property, but that they would never consent to part with their honor, and to stain themselves and their posterity with

the guilt of an assassination. When Davidson carried their despatch to her she broke out into anger. Their scrupulous delicacy, she said, was an infringement of their oath of association; and they were nice, precise, and perjured traitors. She then recommended one Wingfield to strike the blow. The astonished secretary exclaimed with warmth against a mode of proceeding so unwarrantable. He protested that, if she should take upon herself the blame of this deed, it would pollute her with the blackest dishonor; and that, if she should disavow it, she would overthrow for ever the reputation, the estates, and the children of the persons who should assist in it. She heard him with pain, and withdrew from him with precipitation. The warrant, after having been communicated to Walsingham, was carried to the chancellor, who put the great seal to it. This formality was hardly concluded when a message from Elizabeth prohibited Davidson from waiting upon the chancellor till he should receive farther instructions. Within an hour after he received a second message to the same purpose. He hastened to court, and Elizabeth asked eagerly if he had seen the chancellor. He answered in the affirmative; and she exclaimed with bitterness against his haste. He said that he had acted exactly as she had directed him. She continued to express warmly her displeasure; but gave no command to stop the operation of the warrant. In a state of uneasiness and apprehension he communicated her behaviour to the chancellor and the privy-council. These courtiers, however, who were well acquainted with the arts of their mistress, and who knew how to flatter her, paid no attention to him. They perceived, or were secretly informed, that she desired to have a pretence upon which to complain of the secretary, and to deny that he had obeyed her instructions. They observed to him that, by subscribing the warrant, she had performed what the law required of her; and that it was not proper to delay the execution any longer. While they were anxious to please Elizabeth, they were conscious of their own cruelty to Mary, and did not imagine that they could be in security while she lived. They despatched the warrant to the earls of Shrewsbury and Kent, with instructions to them to fulfil it. When the two earls and their retinue reached Fotheringay castle they found Mary sick, and reposing upon her bed. They insisted, notwithstanding, on being introduced to her. Being informed by her servants that the message they brought was important and pressing, she prepared to receive them. They were conducted into her presence by Sir Amias Paulet and Sir Drue Drury; and with little formality they told her that Elizabeth had consented to her death, and that she was to suffer the next morning at eight o'clock. Then Beale, one of the clerks of the privy-council, who accompanied them, read over the warrant, which she heard with pious composure and unshaken fortitude. They then affected to justify their mistress by entering into details concerning the conspiracy of Babington. She put her hand upon the Scriptures, which lay upon a table near her, and swore in the most solemn manner that she never devised, consented to, or pursued the

death of Elizabeth in any shape whatsoever. The earl of Kent, unwisely zealous for the Protestant religion, excepted against her oath, as being made upon a popish Bible. She replied to him mildly, 'It is for this very reason, my lord, to be relied upon with the greater security; for I esteem the popish version of the Scriptures to be the most authentic.' Indulging his puritanical fervor he declaimed against popery, counselled her to renounce its errors, and recommended to her attention Dr. Fletcher dean of Peterborough. She heard the dean with some impatience. Rising into passion he exclaimed, that 'her life would be the death of their religion, and that her death would be its life.'

After informing him that she was unalterably fixed in her religious sentiments, she desired that her confessor might have the liberty to repair to her; when the two earls observed that their consciences did not allow them to grant this request. She made enquiries concerning her secretaries Naw and Curl; and asked whether it had ever been heard of, in the wickedest times of the most unprincipled nation, that the servants of a sovereign princess had been suborned for the purpose of destroying her? They looked to one another and were silent. Bourgoin her physician, who with her other domestics was present at this interview, seeing the earls ready to depart, besought them with an emphatic earnestness to reflect upon the short and inadequate portion of time that they had allotted to his mistress to prepare herself for death. He insisted that a respect for her high rank, and the multiplicity and importance of her concerns, required at least a period of some days. They pretended not to understand the propriety of his petition, and refused it. Upon the departure of the two earls, her domestics gave a full vent to their afflictions; and while she experienced a melancholy pleasure in their tears, lamentations, and kindness, she endeavoured to console them. Their grief, she said, was altogether unavailing, and could neither better her condition nor their own. Her cause had every thing about it that was most honorable; and the miseries from which she was to be relieved were the most hopeless and the most afflicting. Instead of dejection and sadness, she therefore enjoined them to be contented and happy. That she might have the more leisure to settle her affairs, she supped early, and, according to her usual custom, ate little. While at table, she remarked to Bourgoin, her physician, that the force of truth was insurmountable; for that the earl of Kent, notwithstanding the pretence of her having conspired against Elizabeth, had plainly informed her that her death would be the security of their religion. When supper was over, she ordered all her servants to appear before her, and treated them with the kindness which we have mentioned in her life. See MARY. She then entered her bed-chamber with her women; and employed herself in religious duties. At her accustomed time she went to sleep; and, after enjoying some hours of sound rest, awoke; then gave herself to further pious meditation, and partook of a consecrated host, which a melancholy presentiment of her calamities had induced her

to obtain from pope Pius V. At the break of day she arrayed herself in rich, but becoming apparel; and, calling together her servants, she ordered her will to be read, and apologised for the smallness of their legacies from her inability to be more generous. Following the arrangement she had previously made, she then dealt out to them her goods, ward-robe, and jewels. To Bourgoin her physician she committed the care of her will, with a charge that he would deliver it to her principal executor, the duke of Guise. She also entrusted him with tokens of her affection for the king of France, the queen-mother, and her relations of the house of Lorraine. Bidding now an adieu to all worldly concerns, she retired to her oratory, where she was seen sometimes kneeling at the altar, and sometimes standing motionless with her hands joined, and her eyes directed to heaven. While she was thus engaged, Thomas Andrews, the high sheriff, announced to her that the hour for execution was arrived. She came forth dressed in a gown of black silk; her petticoat was bordered with crimson velvet; a veil of lawn bowed out with wire, and edged with bone lace, was fastened to her caul, and hung down to the ground; an Agnus Dei was suspended from her neck by a pomander chain; her beads were fixed to her girdle; and she bore in her hand a crucifix of ivory. Amidst the screams and lamentations of her women she descended the stairs; and in the porch she was received by the earls of Kent and Shrewsbury with their attendants. Here, too, she met Sir Andrew Melvil the master of her household, whom her keepers had long debarred from her presence. Throwing himself at her feet, and weeping aloud, he deplored his sad destiny, and the sorrowful tidings he was to carry into Scotland. After she had spoken to Melvil, she besought the two earls that her servants might be treated with civility, that they might enjoy the presents she had bestowed upon them, and that they might receive a safe conduct to depart out of the dominions of Elizabeth. These slight favors were readily granted. She then begged that they might be permitted to attend her to the scaffold, that they might be witnesses of her behaviour at her death. To this request the earl of Kent discovered a strong reluctance. He said that they would behave with an intemperate passion; and that they would practise superstitious formalities, and dip their handkerchiefs in her blood. She replied that she was sure that none of their actions would be blameable; and that it was but decent that some of her women should be about her. The earl still hesitating, she was affected with the insolent and stupid indignity of his malice, and exclaimed, 'I am cousin to your mistress, and descended from Henry VII. I am a dowager of France, and the anointed queen of Scotland.' The earl of Shrewsbury interposing, it was agreed that she should select two of her women who might assist her in her last moments, and a few of her men-servants, who might behold her demeanour, and report it. She entered the hall where she was to suffer, and advanced with an air of grace and majesty to the scaffold, which was built at its farthest extremity. The spectators were nu-

merous. Her magnanimous carriage, her beauty, which was still striking, and her matchless misfortunes, affected them. They gave way to contending emotions of awe, admiration, and pity. She ascended the scaffold with a firm step and a serene aspect, and turned her eye to the block, the axe, and the executioners. The spectators were dissolved in tears. A chair was placed for her, in which she seated herself. Silence was commanded; and Beale read aloud the warrant for her death. She heard it attentively, yet with a manner from which it might be gathered that her thoughts were employed upon a subject more important. Dr. Fletcher, taking his station opposite to her without the rails of the scaffold, counselled her to repent of her crimes; and, while he inveighed against her attachment to popery, he threatened her with everlasting fire if she should delay to renounce its errors. His behaviour was highly indecent and coarse. Twice she interrupted him with great gentleness. But he pertinaciously continued his exhortations. Raising her voice she commanded him with a resolute tone to withhold his indignities and menaces, and not to trouble her any more about her faith. I was born, said she, in the Roman Catholic religion; I have experienced its comforts during my life, in the trying seasons of sickness, calamity, and sorrow; and I am resolved to die in it. The two earls, ashamed of his savage obstinacy, admonished him to desist, and to content himself with praying for her conversion. He entered upon a long prayer; while Mary falling upon her knees, and disregarding him, employed herself in devotion. Her women now assisted her to disrobe; and, the executioners offering their aid, she repressed their forwardness, observing that she was not accustomed to be attended by such servants, nor to be undressed before so large an assembly. Her upper garments being laid aside, she drew upon her arms a pair of silk gloves. Her women and men servants burst out into loud lamentations. She put her finger to her mouth to admonish them to be silent, and then bad them a final adieu with a smile that seemed to console, but that plunged them into deeper woe. She kneeled resolutely before the block, and said, 'In thee, O Lord! do I trust; let me never be confounded.' She covered her eyes with a linen handkerchief in which the eucharist had been enclosed; and stretching forth her body with great tranquillity, and fitting her neck for the fatal stroke, called out, 'Into thy hands, O God! I commit my spirit.' The executioner, from unskilfulness, or from inquietude, struck three blows before he separated her head from her body. He held it up mangled with wounds, and streaming with blood; and her hair, being discomposed, was discovered to be already gray. The dean of Peterborough alone cried out, So let the enemies of Elizabeth perish. The earl of Kent alone, in a low voice, answered, Amen. All the other spectators were melted into the tenderest sympathy and sorrow. Her women hastened to protect her dead body from the curiosity of the spectators; and solaced themselves with the thoughts of mourning over it undisturbed when they should retire, and of

laying it out on its funeral garb. But the two earls prohibited them from discharging these melancholy yet pleasing offices to their departed mistress, and drove them from the hall. Bourgoign her physician applied to them that he might be permitted to take out her heart for the purpose of preserving it, and of carrying it with him to France. But they refused his entreaty with anger. The executioners carried her remains into an adjoining apartment; and, tearing a cloth from an old billiard table, thus covered that form, once so beautiful. The block, the cushion, the scaffold, and the garments, which were stained with her blood, were consumed with fire. Her body, after being embalmed and committed to a leaden coffin, was buried with royal splendor and pomp in the cathedral of Peterborough. See MARY. Elizabeth, who had treated her like a criminal while she lived, seemed disposed to acknowledge her for a queen when she was dead.

On the death of his mother the full government of the kingdom devolved on James her son: and Elizabeth, justly apprehensive of his resentment for her treatment of his mother, wrote him a letter, in which she disclaimed all knowledge of the fact. James had received intelligence of the murder before the arrival of this letter, sent by one Cary. The messenger was stopped at Berwick by an order from the king, telling him that, if Mary had been executed, he should proceed at his peril. James shut himself up in Dalkeith Castle, to indulge himself in grief; but the natural levity and imbecility of his mind prevented him from acting in any degree as became him. Instead of resolutely adhering to his first determination of not allowing Cary to set foot in Scotland, he in a few days gave his consent that he should be admitted to an audience of certain members of his privy council, who took a journey to the borders on purpose to wait upon him. In this conference, Cary demanded that the league of amity between the two kingdoms should be inviolably observed. He said that his mistress was grieved at the death of Mary, which had happened without her consent; and, in Elizabeth's name, offered any satisfaction that James could demand. The Scottish commissioners treated Cary's speech and proposal with becoming disdain. They observed that they amounted to no more than to know whether James was disposed to sell his mother's blood; adding that the Scottish nobility and people were determined to revenge it, and to interest in their quarrel the other princes of Europe. Upon this Cary delivered to them the letter from Elizabeth, together with a declaration of his own concerning the murder of the queen. This reception of her ambassador threw Elizabeth into the utmost consternation. She was apprehensive that James would join his force to that of Spain, and entirely overwhelm her; and, had the resentment or the spirit of the king been equal to that of the nation, it is probable that the haughty English princess would have been made severely to repent her perfidy and cruelty. It does not, however, appear that James had any serious intention of calling Elizabeth to an account for the murder of his mother; for which, perhaps, his

natural imbecility may be urged as an excuse, though it is more probable that his own necessity for money had swallowed up every other consideration. By the league formerly concluded with England it had been agreed that Elizabeth should pay an annual pension to the king of Scotland. James had neither economy to make his own revenue answer his purposes, nor address to get it increased. He was therefore always in want; and, as Elizabeth had plenty to spare, her friendship became a valuable acquisition. To this consideration, joined to his view of ascending the English throne, must be ascribed the little resentment shown by him to the atrocious conduct of Elizabeth, who continued to exert her usual arts of dissimulation and treachery. She prosecuted and fined secretary Davidson and lord Burleigh for the active part they had taken in Mary's death: their punishment was indeed much less than they deserved, but they certainly did not merit such treatment at her hands. Walsingham, though equally guilty, escaped by pretending indisposition, or perhaps because the queen had still occasion for his services. By her command he drew up a long letter addressed to lord Thirlston, king James's prime minister; in which he showed the necessity of putting Mary to death, and the folly of attempting to revenge it. He boasted of the superior force of England to that of Scotland; showed James that he would for ever ruin his pretensions to the English crown, by involving the two nations in a war; that he ought not to trust to foreign alliances; that the Roman Catholic party were so divided among themselves that he could receive no assistance from them, even supposing him so ill advised as to change his own religion for that of popery, and they would not trust his sincerity. Lastly, he attempted to show that James had already discharged all the duty towards his mother and his own reputation that could be expected from an affectionate son and a wise king; that his interceding for her, with a concern so becoming nature, had endeared him to the kingdom of England; but that it would be madness to push his resentment farther. This letter had all the effect that could be desired. James gave an audience to the English ambassador; and being assured that his blood was not tainted by the execution of his mother for treason against Elizabeth, but that he was still capable of succeeding to the crown of England, he consented to make up matters, and to address the murderer of his mother by the title of loving and affectionate sister.

The reign of James, till his accession to the crown of England by Elizabeth's death in 1603, affords little matter of moment. His scandalous concessions to Elizabeth, and his constant applications to her for money, filled up the measure of royal meanness. Ever since the expulsion of Mary, the country had in fact been reduced to the condition of an English province. The sovereign had been tried by the queen of England and executed for treason; a crime, in the very nature of the thing, impossible, unless Scotland had been in subjection to England; and, to complete all, the contemptible successor of Mary thought himself well off that he was not a traitor too to his sovereign the queen of England.

During the reign of James the religious disturbances which began at the Reformation, and that violent struggle of the clergy for power, which never ceased till the Revolution in 1688, went on with great violence. Continual clamors were raised against popery, at the same time that the very fundamental principles of popery were held, nay, urged in the most insolent manner, as the effects of immediate inspiration. These were the total independence of the clergy on every earthly power, at the same time that all earthly powers were to be subject to them. Their fantastic decrees were supposed to be binding in heaven; and they took care that they should be binding on earth; for whoever had offended so far as to fall under a sentence of excommunication was declared an outlaw. This circumstance must have contributed to disturb the public tranquillity in a great degree. But, besides this, the weakness of James's government was such that, under the name of *peace*, the whole kingdom was involved in the miseries of civil war; the feudal animosities revived, and slaughter and murder prevailed all over the country. James, fitted only for pedantry, disputed, argued, modelled, and remodelled the constitution to no purpose. The clergy continued their insolence, and the laity their violences upon one another; at the same time that the king, by his unhappy credulity in the operation of demons and witches, declared a most inhuman and bloody war against poor old women, many of whom were burnt for the imaginary crime of conversing with the devil. In autumn 1600 happened a remarkable conspiracy against the liberty, if not the life of the king. The attainer and execution of the earl of Gowrie for the part he acted in the raid of Ruthven, and for subsequent practices of treason, have been already mentioned. His son, however, had been restored to his paternal dignity and estates, and had in consequence professed gratitude and attachment to the king. But the Presbyterian clergy continued to express their approbation of the raid of Ruthven; and to declare on every occasion that in their opinion the earl had suffered by an unjust sentence. One of the most eminent and popular of that order of men was preceptor to the younger Gowrie and his brothers, who, from their frequent conversations with him, must have been deeply impressed with the belief that their father was murdered. The passion of revenge took possession of their breasts; and having invited the king from Falkland to the earl of Gowrie's house at Perth, under the pretence of showing him a secret treasure of foreign gold, which he might lawfully appropriate to his own use, an attempt was made to keep him close prisoner, with threats of putting him to instant death, if he should make any attempt to regain his liberty. The reality of this conspiracy has been questioned by many writers, because they could not assign a rational motive for Gowrie's engaging in so hazardous an enterprise; and some have even insinuated that the conspiracy was entered into by the king against Gowrie, to get possession of his large estates. It has been shown, however, by Arnot, in his *Criminal Trials*, that the conspiracy was the earl's, who seems to have intended that the king should be cut off by the hand of an assassin; and the

same writer has made it appear probable that he entertained hopes, in the then distracted state of the nation not ill founded, of being able to mount the throne of his murdered sovereign. Mr. Cant, however, gives a very different opinion on this event. The late learned and judicious lord Hailes, and the celebrated Dr. William Robertson, also totally discredit the story. From this danger, whether real or fictitious, James was rescued by his attendants the duke of Lennox, the earl of Mar, Sir Thomas Erskine, afterwards earl of Kellie, and Sir John Ramsay who was ennobled; and Gowrie and his brother, falling in the struggle, were attainted by an act of parliament, their arms cancelled, and their whole estates forfeited and annexed to the crown. The most memorable transaction of James's reign, and that most to his honor, is the effort he made for civilising the western islands. For this purpose he instituted a company of gentlemen adventurers, to whom he gave large privileges: the method he proposed was to transport numbers of the islanders to the low countries of Scotland, and to give their islands, which were very improveable, in fee to such of his lowland subjects as should choose to reside in the islands. The experiment was to be made upon the Lewes, a long range of the Ebudæ; whence the adventurers expelled Murdoch Macleod, the tyrant of the inhabitants. Macleod, however, kept the sea; and, intercepting a ship which carried one of the chief adventurers, he sent him prisoner to Orkney, after putting the crew to the sword. Macleod was soon after betrayed by his own brother, and hanged at St. Andrews. The history of this new undertaking is rather dark; and the settlers themselves seem to have been defective in the arts of civilisation. The arrangements they made were considered by the inhabitants as very oppressive; and one Norman, of the Macleod family, attacked and subdued them so effectually that they not only consented to yield the property of the islands to him, but engaged to obtain the king's pardon for what he had done. In 1589 king James married the princess Anne of Denmark, daughter of king Christian IV., to receive whose hand he made a voyage to that country: a visit which his father-in-law twice repaid. In 1603 James was called to the throne of England by the death of Elizabeth, and the same year took a final leave of Scotland. From this period the history of Scotland, being blended with that of England, is included in the article GREAT BRITAIN.

Dr. Robertson depicts, in his best manner, the arrival in Scotland of the actual tidings of the accession of James to the English throne—his journey—and the revolutions in the constitution of Scotland consequent upon his accession. The latter have been sufficiently important to justify a considerable extract in this place from the pen of so able a writer:—

'As soon as she [queen Elizabeth] had breathed her last,' observes our author, 'the lords of the privy council proclaimed James king of England. All the intrigues carried on by foreigners in favor of the Infanta, all the cabals formed within the kingdom to support the titles of lady Arabella and the earl of Hartford, disap-

feared in a moment; the nobles and people, forgetting their ancient hostilities with Scotland, and their aversion for the dominion of strangers, testified their satisfaction with louder acclamations than were usual at the accession of their native princes. Amidst this tumult of joy, a motion made by a few patriots, who proposed to prescribe some conditions to the successor, and to exact from him the redress of some grievances, before they called him to the throne, was scarcely heard; and Cecil, by stifling it, added to his stock of merit with his new master. Sir Charles Percy, brother of the earl of Northumberland, and Thomas Somerset, the earl of Worcester's son, were despatched to Scotland with a letter to the king, signed by all the peers and privy councillors then in London, informing him of the queen's death, of his accession to the throne, of their care to recognise his title, and of the universal applause with which the public proclamation of it had been attended. They made the utmost haste to deliver this welcome message; but were prevented by the zeal of Sir Robert Carey, lord Hunsdon's youngest son, who, setting out a few hours after Elizabeth's death, arrived at Edinburgh on Saturday night, just as the king had gone to bed. He was immediately admitted into the royal apartment, and, kneeling by the king's bed, acquainted him with the death of Elizabeth, saluted him king of England, Scotland, France, and Ireland; and, as a token of the truth of the intelligence which he brought, presented him a ring, which his sister, lady Scrope, had taken from the queen's finger after her death. James heard him with a decent composure. But, as Carey was only a private messenger, the information which he brought was not made public, and the king kept his apartment till the arrival of Percy and Somerset. Then his titles were solemnly proclaimed; and his own subjects expressed no less joy than the English at this increase of his dignity. As his presence was absolutely necessary in England, where the people were extremely impatient to see their new sovereign, he prepared to set out for that kingdom without delay. He appointed his queen to follow him within a few weeks. He committed the government of Scotland to his privy-council. He entrusted the care of his children to different noblemen. On the Sunday before his departure he repaired to the church of St. Giles's, and after hearing a sermon, in which the preacher displayed the greatness of the divine goodness in raising him to the throne of such a powerful kingdom without opposition or bloodshed, and exhorted him to express his gratitude, by promoting to the utmost the happiness and prosperity of his subjects; the king rose up, and, addressing himself to the people, made many professions of unalterable affection towards them; promised to visit Scotland frequently; assured them that his Scottish subjects, notwithstanding his absence, should feel that he was their native prince, no less than when he resided among them; and might still trust that his ears should be always open to their petitions, which he would answer with the alacrity and love of a parent. His words were often interrupted by the tears of the whole audience; who, though

they exulted at the king's prosperity, were melted into sorrow by these tender declarations.

On the 5th of April he began his journey with a splendid, but not a numerous train; and next day he entered Berwick. Wherever he came, immense multitudes were assembled to welcome him; and the principal persons in the different counties through which he passed, displayed all their wealth and magnificence in entertainments prepared for him at their houses. Elizabeth reigned so long in England that most of her subjects remembered no other court but hers, and their notions of the manners and decorums suitable to a prince were formed upon what they had observed there. It was natural to apply this standard to the behaviour and actions of their new monarch, and to compare him at first sight with the queen on whose throne he was to be placed. James, whose manners were extremely different from hers, suffered by the comparison. He had not that flowing affability by which Elizabeth captivated the hearts of her people; and, though easy among a few whom he loved, his indolence could not bear the fatigue of rendering himself agreeable to a mixed multitude. He was no less a stranger to that dignity with which Elizabeth tempered her familiarity. And, instead of that well-judged frugality with which she conferred titles of honor, he bestowed them with an undistinguishing profusion, that rendered them no longer marks of distinction, or rewards of merit. But these were the reflections of the few alone; the multitude continued their acclamations; and amidst these James entered London on the 7th of May, and took peaceable possession of the throne of England. Thus were united two kingdoms, divided from the earliest accounts of time, but destined, by their situation, to form one great monarchy. By this junction of its whole native force, Great Britain has risen to an eminence and authority in Europe, which England and Scotland, while separate, could never have attained.

Our historian's reflections, on the alteration produced in the political constitution of Scotland by this event, regard the state of the aristocracy; the new consequence given to the commons; the first establishment of Presbyterianism; and the gradual assimilation of the Scottish to the English nation in matters of taste, genius, and literature:—

'The Scots,' he says, 'had so long considered their monarchs as next heirs to the English throne, that they had full leisure to reflect on all the consequences of their being advanced to that dignity. But dazzled with the glory of giving a sovereign to their powerful enemy, relying on the partiality of their native prince, and in full expectation of sharing liberally in the wealth and honors which he would now be able to bestow, they attended little to the most obvious consequences of that great event, and rejoiced at his accession to the throne of England, as if it had been no less beneficial to the kingdom than honorable to the king. They soon had reason, however, to adopt very different sentiments, and from that period we may date a total alteration in the political constitution of Scotland.

'The feudal aristocracy, which had been sub

verted in most nations of Europe by the policy of their princes, or had been undermined by the progress of commerce, still subsisted with full force in Scotland. Many causes had contributed gradually to augment the power of the Scottish nobles; and even the Reformation, which, in every other country where it prevailed, added to the authority of the monarch, had increased their wealth and influence. A king, possessed of a small revenue, with a prerogative extremely limited, and unsupported by a standing army, could not exercise much authority over such potent subjects. He was obliged to govern by expedients; and the laws derived their force, not from his power to execute them, but from the voluntary submission of the nobles. But though this produced a species of government extremely feeble and irregular; though Scotland, under the name, and with all the outward ensigns of a monarchy, was really subject to an aristocracy, the people were not altogether unhappy; and, even in this wild form of a constitution, there were principles which tended to their security and advantage. The king, checked and overawed by the nobles, durst venture upon no act of arbitrary power. The nobles, jealous of the king, whose claims and pretensions were many, though his power was small, were afraid of irritating their dependents by unreasonable exactions, and tempered the rigor of aristocratical tyranny, with a mildness and equality to which it is naturally a stranger. As long as the military genius of the feudal government remained in vigor the vassals both of the crown and of the barons were generally not only free from oppression, but were courted by their superiors, whose power and importance were founded on their attachment and love. But, by his accession to the throne of England, James acquired such an immense accession of wealth, of power, and of splendor, that the nobles, astonished and intimidated, thought it vain to struggle for privileges which they were now unable to defend. Nor was it from fear alone that they submitted to the yoke: James, partial to his countrymen, and willing that they should partake in his good fortune, loaded them with riches and honors; and the hope of his favor concurred with the dread of his power, in taming their fierce and independent spirits. The will of the prince became the supreme law in Scotland; and the nobles strove, with emulation, who should most implicitly obey commands which they had formerly been accustomed to contemn. Satisfied with having subjected the nobles to the crown, the king left them in full possession of their ancient jurisdiction over their own vassals. The extensive rights vested in a feudal chief became in their hands dreadful instruments of oppression, and, the military ideas on which these rights were founded being gradually lost or disregarded, nothing remained to correct or to mitigate the rigor with which they were exercised. The nobles, exhausting their fortunes by the expense of frequent attendance upon the English court, and by attempts to imitate the manners and luxury of their more wealthy neighbours, multiplied exactions upon the people, who durst hardly utter complaints which they knew would

never reach the ear of their sovereign, nor move him to grant them any redress. From the union of the crowns to the Revolution, in 1688, Scotland was placed in a political situation of all others the most singular and the most unhappy: subjected at once to the absolute will of a monarch, and to the oppressive jurisdiction of an aristocracy, it suffered all the miseries peculiar to both these forms of government. Its kings were despotic; its nobles were slaves and tyrants; and the people groaned under the rigorous domination of both. During this period, the nobles, it is true, made one effort to shake off the yoke, and to regain their ancient independence. After the death of James, the Scottish nation was no longer viewed by our monarchs with any partial affection. Charles I., educated among the English, discovered no peculiar attachment to the kingdom of which he was a native. The nobles, perceiving the sceptre to be now in hands less friendly, and swayed by a prince with whom they had little connexion, and over whose councils they had little influence, no longer submitted with the same implicit obedience. Provoked by some encroachments of the king on their order, and apprehensive of others, the remains of their ancient spirit began to appear. They complained and remonstrated. The people being, at the same time, violently disgusted at the innovations in religion, the nobles secretly heightened this disgust; and their artifices, together with the ill conduct of the court, raised such a spirit that the whole nation took arms against their sovereign, with a union and animosity of which there had formerly been no example. Charles brought against them the forces of England, and notwithstanding their own union, and the zeal of the people, the nobles must have sunk in the struggle. But the disaffection which was growing among his English subjects prevented the king from acting with vigor. A civil war broke out in both kingdoms; and after many battles and revolutions, which are well known, the Scottish nobles, who first began the war, were involved in the same ruin with the throne. At the restoration Charles II. regained full possession of the royal prerogative in Scotland; and the nobles, whose estates were wasted, or their spirit broken, by the calamities to which they had been exposed, were less able and less willing than ever to resist the power of the crown. During his reign, and that of James VII., the dictates of the monarch were received in Scotland with the most abject submission. The poverty to which many of the nobles were reduced rendered them meaner slaves and more intolerable tyrants than ever. The people, always neglected, were now odious, and loaded with every injury on account of their attachment to religious and political principles, extremely repugnant to those adopted by their princes.

The Revolution introduced other maxims into the government of Scotland. To increase the authority of the prince, and to secure the privileges of the nobles, had hitherto been almost the sole object of our laws. The rights of the *people* were hardly ever mentioned, were disregarded, or unknown. Attention began, hence-

forward, to be paid to the welfare of the people. By the 'claim of right,' their liberties were secured; and, the number of their representatives being increased, they gradually acquired new weight and consideration in parliament. As they came to enjoy more security, and greater power, their minds began to open, and to form more extensive plans of commerce, of industry, and of police. But the aristocratical spirit which still predominated, together with many other accidents, retarded the improvement and happiness of the nation.

'Another great event completed what the Revolution had begun. The political power of the nobles, already broken by the union of the two crowns, was almost annihilated by the union of the two kingdoms. Instead of making a part, as formerly, of the supreme assembly of the nation; instead of bearing the most considerable sway there, the peers of Scotland are admitted into the British parliament by their representatives only, and form but an inconsiderable part of one of those bodies in which the legislative authority is vested. They themselves are excluded absolutely from the house of commons, and even their eldest sons are not permitted to represent their countrymen in that august assembly. Nor have their feudal privileges remained, to compensate for this extinction of their political authority. As commerce advanced in its progress, and government attained nearer to perfection, these were insensibly circumscribed; and at last, by laws no less salutary to the public than fatal to the nobles, they have been almost totally abolished. As the nobles were deprived of power, the people acquired liberty. Exempted from burdens to which they were formerly subject, screened from oppression to which they had been long exposed, and adopted into a constitution whose genius and laws were more liberal than their own, they have extended their commerce, refined their manners, made improvements in the elegancies of life, and cultivated the arts and sciences.

'This survey of the political state of Scotland, in which events and their causes have been mentioned rather than developed, enables us to point out three eras, from each of which we may date some great alteration in one or other of the three different members of which the supreme legislative assembly in our constitution is composed. At their accession to the throne of England, the kings of Scotland, once the most limited, became, in an instant, the most absolute princes in Europe, and exercised a despotic authority, which their parliaments were unable to control, or their nobles to resist. At the union of the two kingdoms, the feudal aristocracy, which had subsisted so many ages, and with power so exorbitant, was overturned, and the Scottish nobles, having surrendered rights and pre-eminences peculiar to their order, reduced themselves to a condition which is no longer the terror and envy of other subjects. Since the Union, the commons, anciently neglected by their kings, and seldom courted by the nobles, have emerged into dignity; and, being admitted to a participation of all the privileges which the English had purchased at the expense of so much blood,

must now be deemed a body not less considerable in the one kingdom, than they had long been in the other.

'The church felt the effects of the absolute power which the king acquired by his accession; and its revolutions, too, are worthy of notice. James, during the latter years of his administration in Scotland, had revived the name and office of bishops. But they possessed no ecclesiastical jurisdiction or pre-eminence; their revenues were inconsiderable, and they were scarcely distinguished by any thing but by their seat in parliament, and by being the object of the clergy's jealousy, and the people's hatred. The king, delighted with the splendor and authority which the English bishops enjoyed, and eager to effect a union in the ecclesiastical polity which he had in vain attempted in the civil government of the two kingdoms, resolved to bring both churches to an exact conformity with each other. Three Scotsmen were consecrated bishops at London. From them their brethren were commanded to receive orders. Ceremonies unknown in Scotland were imposed; and though the clergy, less obsequious than the nobles, boldly opposed these innovations, James, long practised and well skilled in the arts of managing them, obtained at length their compliance. But Charles I., a superstitious prince, unacquainted with the genius of the Scots, impatient and precipitant in all the measures he pursued in that kingdom, pressing too eagerly the reception of the English liturgy, and indiscreetly attempting a resumption of church lands, kindled the flames of civil war; and, the people being left at liberty to indulge their own wishes, the episcopal church was overturned, and the Presbyterian government and discipline were re-established with new vigor. Together with monarchy, episcopacy was restored in Scotland. A form of government so odious to the people required force to uphold it; and though not only the whole rigor of authority, but all the barbarity of persecution, were employed in its support, the aversion of the nation was insurmountable, and it subsisted with difficulty. A: the Revolution, the inclinations of the people were thought worthy the attention of the legislature; the Presbyterian government was again established, and, being ratified by the Union, is still maintained in the kingdom.

'Nor did the influence of the accession extend to the civil and ecclesiastical constitutions alone; the *genius* of the nation, its taste, and spirit, things of a nature still more delicate, were sensibly affected by that event. When learning revived, in the fifteenth and sixteenth centuries, all the modern languages were in a state extremely barbarous, devoid of elegance, of vigor, and even of perspicuity. No author thought of writing in language so ill adapted to express and embellish his sentiments, or of erecting a work for immortality with such rude and perishable materials. As the spirit which prevailed at that time did not owe its rise to any original effort of the human mind, but was excited chiefly by admiration of the ancients, which began then to be studied with attention in every part of Europe, their compositions were deemed not only the standards

of taste and of sentiment, but of style; and even the languages in which they wrote were thought to be peculiar, and almost consecrated to learning and the muses. Not only the manner of the ancients was imitated, but their language was adopted; and extravagant as the attempt may appear to write in a dead tongue, in which men were not accustomed to think, and which they could not speak, or even pronounce, the success of it was astonishing. As they formed their style upon the purest models; as they were uninfected with those barbarisms which the inaccuracy of familiar conversation, the affectation of courts, intercourse with strangers, and a thousand other causes, introduce into living languages; many moderns have attained to a degree of elegance in their Latin compositions which the Romans themselves scarcely possessed beyond the limits of the Augustan age. While this was almost the only species of composition, and all authors, by using one common language, could be brought to a nearer comparison, the Scottish writers were not inferior to those of any other nation. The happy genius of Buchanan, equally formed to excel in prose and in verse, more various, more original, and more elegant, than that of almost any other modern who writes in Latin, reflects, with regard to this particular, the greatest lustre on his country. But the labor attending the study of a dead language was irksome; the unequal return for their industry which authors met with, who could be read and admired only within the narrow circle of the learned, was mortifying; and men, instead of wasting half their lives in learning the language of the Romans, began to refine and to polish their own. The modern tongues were found to be susceptible of beauties and graces, which, if not equal to those of the ancient ones, were at least more attainable. The Italians having first set the example, Latin was no longer used in works of taste; it was confined to books of science; and the politer nations have banished it even from these. The Scots, we may presume, would have had no cause to regret this change in the public taste, and would still have been able to maintain some equality with other nations, in their pursuit of literary honor. The English and Scottish languages, derived from the same sources, were, at the end of the sixteenth century, in a state nearly similar, differing from one another somewhat in orthography, though not only the words, but the idioms, were much the same. The letters of several Scottish statesmen of that age are not inferior in elegance, or in purity, to those of the English ministers with whom they corresponded. James himself was master of a style far from contemptible; and, by his example and encouragement, the Scottish language might have kept pace with the English in refinement. Scotland might have had a series of authors in its own, as well as in the Latin language, to boast of; and the improvements in taste, in the arts, and in the sciences, which spread over the other polished nations of Europe, would not have been unknown there. But, at the very time when other nations were beginning to drop the use of Latin in works of taste, and to make trial of the strength and compass of their own languages,

Scotland ceased to be a kingdom. The transports of joy which the accession at first occasioned were soon over; and the Scots being at once deprived of all the objects that refine or animate a people—the presence of their prince, of the concourse of their nobles, of the splendor and elegance of a court—a universal dejection of spirit seems to have seized the nation. The court being withdrawn, no domestic standard of propriety and correctness of speech remained; the few compositions that Scotland produced were tried by the English standard, and every word or phrase that varied in the least from that was condemned as barbarous; whereas, if the two nations had continued distinct, each might have retained idioms and forms of speech peculiar to itself; and these, rendered fashionable by the example of a court, and supported by the authority of writers of reputation, might have been viewed in the same light with the varieties occasioned by the different dialects in the Greek tongue: they even might have been considered as beauties, and in many cases might have been used promiscuously by the authors of both nations. But, by the accession, the English naturally became the sole judges and lawgivers in language, and rejected as solecisms every form of speech to which their ear was not accustomed. Nor did the Scots, while the intercourse between the two nations was considerable, and ancient prejudices were still so violent as to prevent imitation, possess the means of refining their own tongue according to the purity of the English standard. On the contrary, new corruptions flowed into it from every different source. The clergy of Scotland, in that age, were more eminent for piety than for learning; and, though there did not arise many authors among them, yet being in possession of the privilege of discoursing publicly to the people, and their sermons being too long, and perhaps too frequent, such hasty productions could not be elegant, and many slovenly and incorrect modes of expression may be traced back to that original. The pleadings of lawyers were equally loose and inaccurate, and that profession having furnished more authors, and the matters of which they treat mingling daily in common discourse and business, many of those vicious forms of speech which are denominated *Scotticisms* have been introduced by them into the language. Nor did either the language or public taste receive any improvement in parliament, where a more liberal and more correct eloquence might have been expected. All business was transacted there by the lords of articles, and they were so servilely devoted to the court that few debates arose, and, prior to the Revolution, none were conducted with the spirit and vigor natural to a popular assembly.

Thus, during the whole seventeenth century, the English were gradually refining their language and their taste; in Scotland, the former was much debased, and the latter almost entirely lost. In the beginning of that period, both nations were emerging out of barbarity; but the distance between them, which was then inconsiderable, became, before the end of it immense. Even after science had once dawned upon them, the Scots seemed to be sinking back into ignorance and

obscurity; and, active and intelligent as they naturally are, they continued, while other nations were eager in the pursuit of fame and knowledge, in a state of languor. This, however, must be imputed to the unhappiness of their political situation, not to any defect of genius; for no sooner was the one removed in any degree, than the other began to display itself. The act abolishing the power of the lords of articles, and other salutary laws passed at the Revolution, having introduced freedom of debate into the Scottish parliament, eloquence, with all the arts that accompany or perfect it, became immediate objects of attention; and the example of Fletcher of Salton alone is sufficient to show that the Scots were still capable of generous sentiments, and, notwithstanding some peculiar idioms, were able to express themselves with energy and with elegance. At length the Union having incorporated the two nations, and rendered them one people, the distinctions which had subsisted for many ages gradually wear away; peculiarities disappear; the same manners prevail in both parts of the island; the same authors are read and admired; the same entertainments are frequented by the elegant and polite; and the same standard of taste and purity of language is established. The Scots, after being placed, during a whole century, in a situation no less fatal to the liberty than to the taste and genius of the nation, were at once put in possession of privileges more valuable than those which their ancestors had formerly enjoyed; and every obstruction that had retarded their pursuit, or prevented their acquisition of literary fame, was totally removed.

Two curious papers, one published by Haynes, and the other by Strype, are referred to by Dr. Robertson as affording a remarkable proof of the little intercourse between the English and Scots before the union of the two crowns. 'In the year 1567 Elizabeth commanded the bishop of London to take a survey of all the strangers within the cities of London and Westminster. By this report, which is very minute, it appears that the whole number of Scots at that time was fifty-eight. Haynes 455. A survey of the same kind was made by Sir Thomas Row, lord mayor, A. D. 1568. The number of Scots had then increased to eighty-eight. Strype, iv. Supplement, No. I. On the accession of James, a considerable number of Scots, especially of the higher rank, resorted to England; but it was not till the Union that the intercourse between the two kingdoms became great.' We could almost suppose the number of our Northern countrymen to be found in the Bank of England, at the present time, would exceed that of either of the above remarkable reports!

STATISTICS OF SCOTLAND.

In our article BRITAIN many of the great common features of the island of Great Britain are pointed out. In this place it can be only necessary to enter more at large into what is peculiar to Scotland; and we shall first conduct the reader round her romantic and commercial coasts. Our notice of the places must of course

be cursory. For farther information, in regard to the chief towns, the reader will consult their alphabetical places.

I. THE EAST COAST OF SCOTLAND, from the entrance of the Tweed to the Frith of Forth, is precipitous and rocky: the shore is covered with sea-weed, chiefly fucus palmatus, which is used as a manure and burnt into kelp. The cliffs are the resort of a prodigious number of sea birds, chiefly scouts and kittiwakes (*larus rissa*) which arrive in the spring, and, after having reared their young, depart in the autumn; they are taken for food by the poorer class. The tides on this coast rise twenty feet.

Berwickshire.—The only harbour between Berwick and the Forth is Eyemouth, a tide haven formed by two piers, with twenty feet in the spring and sixteen in common tides. The town has a considerable share in the fishery, and exports many thousand quarters of grain, chiefly to Leith. Between Eyemouth and St. Abb's Head is a fine bay with good anchorage. St. Abb's is a noted promontory with the ruins of a chapel; it is said to have its name from a certain lady Ebba, abbess of Coldingham, who, together with her nuns on an invasion of the Danes, cut off their noses to prevent their violation by the barbarians. Coldingham Loch is a fresh water lake, one mile west of the head, and a mile in circuit: though it receives no visible stream it always remains full. Lunsden is a fishing village north of the head.

East Lothian or Haddington.—Dunbar, on an eminence, is a genteel and healthy town with a castle on a ledge of rocks running into the sea, and memorable as the scene of the simulated outrage on Mary, queen of Scots, by Bothwell. It has a small pier haven, defended by a battery: its chief business is the fishery and the export of corn. The Tyne River, the only one of any consideration in the county, empties itself below the village of Lintan; though in summer it is a torpid stream, the melting of the snows or rains causes it at times to overflow. It has salmon and trout. Tamtallon Castle, two miles east of North Berwick, is a ruin on a rock overhanging the sea which washes it on three sides. North Berwick is a small town of about 2000 inhabitants; it has a pier haven and exports corn.

The *Frith of Forth* (Bodotria) is a great estuary, whose entrance between the coasts of Haddington and Fifeshire, in Fifeshire, is seven miles broad. The breadth decreases regularly to Queensferry, where it is contracted by two promontories to two miles. Above which it again expands to a fine basin four miles broad, and continues this breadth for several leagues. In the Frith are several islands and rocks worthy of notice. The Isle of Bass, near the south shore, is a rock of great elevation overhanging the sea; on the north side, and on the brow of the precipice, is an abandoned castle, at one period the state prison of Scotland. The isles of Inch Gowry, Inchcolm, Inchkeith, and May, are the others worth notice. Inch Gowry has the ruins of a castle; and the ruins of a fort are seen on Inchkeith, near the Fife shore of the Frith. A few sheep are pastured on this island; it abounds with rabbits, has three good wells and

a light-house. The other islands have nothing deserving mention. See **FORTH**.

Both shores of the Frith of Forth are thickly dotted with towns and villages, from which a considerable fishery is carried on, and which export salt and coals. Those of the south shore are port Seaton, a dry tide haven with twelve feet depth, in spring tides. Preston Pans, named from its salt pans, has also a tide haven for small craft, and employs ten boats in the oyster fishery. It is the grand rendezvous of Scottish pedlars, who meet here to enact regulations for their community.

Edinburghshire.—Musselburgh, at the mouth of the little river Esk, has its name from the mussel banks before it. Fine pearls are often found in these fish. The town has a small haven.

Leith, the port of Edinburgh, is two miles distant from the city; but the increase of houses has now nearly united them. Leith is on both banks of the little river of the same name, and has a large trade both foreign and coasting, particularly with London (see **LEITH**); it also sends ships to the Greenland fishery.

Linlithgow.—Queensferry, the usual crossing place of the Frith of Forth, is a considerable village, with some trade, and ship-building yards. Borrowstownness, on the inner basin of the Frith, is a busy place, having a considerable herring fishery, a large coal trade, and a trade to the Baltic. Its haven has sixteen to eighteen feet spring tides, and is kept clean by a large basin with four sluices, which are shut when the basin is full at high water, and opened at low water, so that the rush of the streams carry out the mud.

Fife.—The places deserving notice on the north or Fife shore of the Frith are Crail, on an elevation; it has some sloops, and about a dozen herring smacks. Kilrenny, East and West Anstruthers, are also fishing villages, with some sloop trade. Pittenween has a tide haven, with eleven or twelve feet springs. It exports grain, salt, and coals. Largo, on a considerable bay. Dysart, a town of one principal street, builds merchant ships for the Baltic trade; has large manufactories of salt. Kirkaldy, on a fine cove, but is ill built, its principal street being most disagreeably serpentine and narrow. It has considerable manufactures, and employs 4000 tons of shipping. Kinghorn, opposite Leith, and five miles from it, is on a cliff overhanging the sea; its port, named Pettycur, is a fine basin at some distance to the west, and is the usual crossing place to Leith. Burnt Island is a village on a peninsula, forming an excellent haven of easy access, adapted for repairing or laying up ships; it has some trade and ship building. Stanlyburn has a pier haven. Inverkeithing is on the rising ground of a bay, affording good anchorage; it is one of the quarantine harbours for Scotland; it exports coals and salt; as do Terry Burn and St. David's villages. St. Andrew's Bay is between Fifeness on the south, and Redhead on the north, seven leagues distant. Nearly midway is the dangerous Cape or Bell Rock, which nearly dries at low water, and on which a light-house has been recently built.

The city of St. Andrew's is on the south side

of the bay on a rocky point, and has a haven formed by a pier, built on a natural ledge of free stone running into the sea; the depth is seven to ten feet high water neaps, and fifteen to sixteen in the springs. East and West Havens are fishing villages or creeks on the south shore of St. Andrew's Bay. The Tay, which carries a greater quantity of water to the sea than any other river of Britain, issues from the loch of the same name, and empties itself by an estuary named the Frith of Tay, filled with shifting banks. Vessels of considerable burthen ascend the river to Perth, the chief town of Perthshire, and export its corn, linen, linseed, oil, and salmon, the produce of the Tay fishery. This river had formerly a mussel pearl fishery that some years produced £10,000, but it has been entirely exhausted.

Angus.—Dundee on the north or Angus shore of the Tay, twelve miles from its mouth, where it is two miles broad, is a flourishing town with a haven, formed by a pier, dry at low water; but, having nine or ten feet at high water neaps, and fourteen at springs; receiving vessels of 200 tons. Its trade is very considerable with the Baltic and London; its exports are sailcloth, leather, cordage, thread, buckram, corn, salmon, and herrings; and its imports of various objects are estimated at 80,000 tons. It also sends vessels to the Greenland fishery. Passage vessels sail weekly to London. On Bartonness, the north point of the Frith of Tay, are two lights. Aberbrothick or Arbroath, at the mouth of the Brothick, has a fine tide haven for vessels of 200 tons, defended by a battery of six twelve-pounders. It exports the linen and sailcloth of its manufactories. Here are the ruins of a celebrated Benedictine monastery founded in 1178. From the mouth of the Tay to beyond Arbroath the coast is sandy and lined with rocks. Here it becomes bold and precipitous, with large caverns worn in the cliffs. Redhead terminates this tract, rising in red cliffs 200 feet high, and bounding Lunan Bay on the south, the shores of which are sandy, with sunken rocks as far as the North Esk River. In this bay is good anchorage in southerly winds. On Redhead are the ruins of a strong castle said to have been built in the twelfth or thirteenth century.

Montrose, the chief town of the county, is a neat and genteel place, half a mile from the mouth of the South Esk, which at the town forms a basin 250 yards broad, accessible to vessels of 400 tons. The town is built on a point of land surrounded on three sides by water. It exports chiefly salmon of the river and lobsters (60,000 to 70,000 a year) to London. It has also a considerable coasting trade, and some to the Baltic; and builds vessels.

Kincardine.—Fiscall is a village at the mouth of the North Esk, which separates Angus and Kincardine shires, to which succeeds Johnshaven. Gourdon, a fishing village with a haven, properly the port of Inverberie, two miles further north at the mouth of the Bervie, which receives only fishing boats. Eight or ten sloops belong to this port. Dunnottar Castle is on a high perpendicular cliff, almost surrounded by

the sea, and towards the land defended by a deep ravine. Stonehaven, a fishing town of two streets, on the Cowie, with a good haven formed on the south-east by a projecting rock, and on the north-east by a pier: it dries at low water, but has nine or ten feet high water neaps, and sixteen to seventeen in the springs. There is a good salmon fishery here. Girdleness, a promontory eighty feet high, is the termination of a ridge of the Grampian hills. On the shores near it beautiful Scotch pebbles and jasper are found, and most of the hills are composed of breccia or pudding stone.

Aberdeenshire.—The coast of Aberdeen is in general bold and rocky, the cliffs presenting many caverns of unknown extent. Aberdeen Bay is limited by Girdleness on the south; it affords good anchorage in off shore winds. The Dee is a rapid and considerable stream, descending from the Grampians: its mouth, enclosed by two piers, forms the haven of Aberdeen, which is crossed by a bar with but two feet at low water, and twelve and a half feet at high. Vessels that can go over the bar lie at a handsome quay. The north pier is 1200 feet long, and terminates in a round head sixty feet in diameter at the base, and thirty-eight feet high; the whole built of huge rocks of granite. The entrance is defended by two batteries of twelve-pounders. Old Aberdeen on the Don, a mile north of the new town, is almost joined to it by a long village. Small vessels enter the river's mouth. Newborough, on a rock forming a good haven, with twelve feet depth high water common tides; close to it on the north is the river Ythan, in which the tide flows up to the pleasant village of Ellon. This river abounds with pearl mussels. Slane's Castle, the seat of the earl of Errol, is built on a cliff overhanging the sea; near it is a cavern named the Dropping Cave, remarkable for the quick petrification of the water that drops from its roof. The ward of Gruden is a fishing village south of Buchanness, near which is a singular natural curiosity called the Buller of Buchan; it is a circular basin surrounded by a ring of frightful rocks, in which on the side next the sea the waves have worn an arched opening, through which boats can pass into the basin, which latter has a depth of thirty fathoms; the summit of the ring of rocks is covered with earth and grass, forming a narrow walk all round. Peterhead, a league north of Buchanness, has a tide haven formed by a pier, and sheltered by the little island Chalk Inch. It has some trade to the Baltic, is engaged in the cod and herring fisheries, and is visited for a mineral spring. Kinnaird Head is the south point of the great gulf formed on the north-east coast of Scotland, terminating in the Murray Frith. A league from the head is Frazerborough, to which succeed Rosehearty and Aberdour, fishing villages with little tide havens.

Banff.—The coast of Banff county is in general very bold, presenting in many parts a front of perpendicular rock 200 to 300 feet high. In the parish of Guarie is a steep rock, frequented by innumerable kittywakes, which arrive in spring to breed and depart in the autumn. On the same coast is a natural abyss called Hell's

chimney, communicating at its base with the sea, whose waves rush into and force a column of water through it, which breaks into vapor. A second cave is pierced through a neck of land, and from an entrance through which a man can only creep opens into a cavern 150 feet long, thirty broad, and twenty high, supported by vast natural columns of rock. On this coast are many small fishing places, beginning with Gardenstone, to which succeeds Macduff, a little town recently founded by the earl of Fife on the right bank of the Doveran, which has the best haven of the Murray gulf. On the opposite bank of the river is Banff, on the declivity of a hill, a genteel town, but with a bad haven from shifting sand-banks. The Doveran is useless to navigation, but has a salmon fishery that rents for £1000. The other exports are ale, corn, thread, cotton and yarn stockings, by coasters. Portsoy is a populous town on a point of land, which forms a safe harbour for vessels of considerable size; besides the produce of its fishery it exports thread and fine linen to London. The other places accessible to navigation are Cullen, which has only an open and dangerous road, Port Nockie, and Buckie, which receive small craft.

Murray.—The river Spey separates Banff and Murray shires; its course is about ninety miles to the Murray Frith, where it empties itself at Gairmouth, forming a good haven for small vessels. Gairmouth is a neat town of 700 inhabitants, and has a good deal of business, chiefly from the great quantity of timber floated down the Spey from the forest of Strathspey. A number of vessels of 500 tons are built here of this timber; and it has a good salmon fishery, several sloops being employed in conveying the fish to London. On the coast of Murray is a considerable tract of sand downs, called the Maviston Sand-hills, which, according to tradition, were formed by the same inundation of the sea that produced the Goodwin Sands. These downs are constantly increasing towards the north-east, and within the last century have entirely covered the fertile barony of Culbin; and the same cause has also necessitated the removal of the town of Findhorn, whose ancient site is now obliterated by sand-hills.

On this coast are some fresh water lakes, which were apparently bays of the sea, particularly Loch Spynie, three miles long and one broad, now separated from the sea by a fertile tract of land called Ross Island; many beds of oyster shells are found on the banks of the lake considerably below the level of the land. The lake abounds in perch and pike, and is frequented by swans. The Loch of Cots is described as a bay in the thirteenth century. The Frith of Murray is entered between Burgh Head in Murray, and Tarbet Ness in Ross, distant from each other five leagues; it contracts gradually to a strait between Fort George and Fortrose, formed by two promontories, within which it again widens to a lake nine miles long and three broad; at the upper end of which two projecting points at Inverness contract it to a second strait, beyond which it again expands, and forms a second lake nearly as large as the

first, at the head of which the river Beaulay empties itself. The river Ness, which issues from Loch Ness, falls into the Frith at Inverness. Lossie Mouth, at the entrance of the little river Lossie, is the port of Elgin, and receives vessels of eighty tons, by which it exports corn to Leith, &c. Findhorn is a small town at the mouth of a river, which is navigable to within two miles of Forres, five miles above Findhorn. In the river is a good salmon fishery. In the bay of Findhorn is 1000 acres of soil covered by the tide of flood, which it is in contemplation to embank.

Nairne.—Nairne, at the mouth of a river, is the only port of the little county of Nairne; it is neatly built, and exports the produce of its salmon fishery. Its harbour is convenient, and capable of great improvement.

Inverness.—Fort George, on the Inverness side of the strait that communicates between the two inner lakes of the Murray Frith, is a regular fortification, on a promontory surrounded on three sides by the sea, and covering ten acres of ground, mounting 100 cannon, chiefly forty-two pounders, and having barracks for 6000 men. Inverness is a considerable town at the mouth of Ness River, accessible to vessels of 500 tons at all times; it exports salmon, herrings, cordage, canvas, and sacking, chiefly to London.

The Friths of Murray and Cromarty are separated by a peninsula named Black Isle (Elan-du), through which runs a ridge of hills covered with heath, declining to both gulfs. The peninsula is twenty miles long and four broad, the south shore forming the county of Ross, and the north that of Cromarty. Fortrose and Beaulay are in Ross-shire, on the Murray Frith, the former opposite to Fort George.

Cromarty.—Cromarty Frith is a deep inlet, called for excellence 'the Harbour of Safety;' it is entered between two high heads called the Sutors of Cromarty, a mile and a half distant from each other, within which it expands to three miles for a length of sixteen, and has good anchorage for the largest ships in every part, so that it is often run into for shelter in easterly winds. The south Sutor is a bold promontory topped with pines, and commanding a magnificent view over the sea and over Ross-shire. Cromarty, on the south shore of the strait, has a commodious quay, at which vessels of 400 tons lie; it has little other business than the fishery.

Ross.—The Frith of Dornoch, or of Tain, is separated from that of Cromarty by a peninsula of the county of Ross, of which Tarbet Ness is the extreme point. The entrance of the Frith is five leagues wide, decreasing gradually to Mickel Ferry, where it is two miles; within this it again expands, and forms a good harbour for vessels of considerable burden, though it is crossed by a bar with but four feet at low water. The south shore of the outer gulf is lined by a bank called the Gizzing Briggs, from the noise the sea makes on it; in it are several breaks, admitting small craft within it: but all this gulf requires a pilot.

Tain, on the south shore of the Frith, has some coasting trade; it is an old irregular built town, with a few new houses.

Sutherland.—On the north or Sutherland shore of the Frith of Tain is Dornoch, the principal one of Sutherland, and the only one deserving mention. North of the entrance of Dornoch Frith are Fleet Lake, Dunrobin Castle, the seat of the earls of Sutherland, in good repair, and Brora Haven, at the mouth of the little river of that name.

Caithness.—The county of Caithness occupies the north-east extremity of Great Britain; its east coast is bold and rocky, forming many little coves into which the fishing boats run, and to which the fishermen descend from the perpendicular cliffs by dangerous flights of steps cut in the rock. To secure their boats from the sea they hoist them to the rocks, into which rings are fixed for the purpose above the reach of the waves. At one of these coves, named Falgoui, a fine cascade falls over the cliffs into the sea. At the bases of the rocks are many sea-worn caverns, accessible only in boats, and frequented by seals, which are killed for their oil and skins. Many rocky pyramids also start up from the sea. The sea air prevents the growth of any kind of trees on this coast. It abounds in sea weed, which is burnt into kelp.

The principal places in Caithness are Dunbeath Castle and Wick, on the east coast; the latter is the county town; its haven is natural and very indifferent. Staxigo, one mile north of Wick, has a little dry tide haven. Freswick castle, on Sinclair Bay, north of Noss Head, is strongly situated on a promontory. Dungis, or Duncan's Bay Head, the Berubium of Ptolemy, is the north-east point of Scotland; it is a rocky precipitous promontory, eaten into caverns by the waves. The Stalks of Dungis Bay are two isolated pyramids of freestone, the resort of sea birds, and the breeding place of eagles. The north coast of Caithness, west of Dungis Bay Head, forms a fine bay, with a white sandy and shelly beach, near which was the celebrated John O'Groats's house, noted as well for the tradition respecting its erection, as for being the northernmost habitation in Britain. Thurso is on a spacious bay, limited by Dunnet Head (Occas Promont), the north point of England, on the east, and by Welbrow Head on the west, both of which shelter it from the fury of the waves and the stream of the tides. Dunnet Head is a broken rocky promontory, from 100 to 400 feet high, joined to the main by an isthmus, one mile and a half broad. It is one of the few places of Britain frequented by puffins.

Thurso, on the river of the same name, has a river navigable two miles for vessels of sixty tons, and its harbour is about to be improved by act of parliament. Thurso has eight vessels employed in coasting, and several fishing boats. It exports corn and meal to the amount of £12,000, and fish to a greater amount, particularly salmon, which is so abundant that 2500 were caught in one draft, two miles above the town, in 1743. The annual export is estimated at 700 kits of boiled salmon, 250 barrels of pickled, besides 7000 barrels of salted and smoked herrings.

Sutherland.—The north coast of Sutherland is indented by numerous bays, forming good roads

for shipping. The first is Port Skerry, at the mouth of the Illohdale River, which separates this county from Caithness. Five miles north-west of it is Strathay Head, a long promontory, sheltering a cove, called Port Strathay, at the mouth of a river of the same name. West of Strathay Head, the River Naver, the most considerable of the county, falls into a fine bay, after a course of twenty-eight miles. Torrysdale River empties itself at a village of the same name, and has a good salmon fishery. Tongue Bay, farther west, is an inlet of the sea, five miles deep, skirted with farm houses and corn fields. Farther west the coast is high and rocky, with many little coves, on one of which, named Voisgag, a quarry of gray slate is worked. There are here also many sea-worn caverns, supported by pillars, of which that named the Great Cave of Fraigsall runs in more than half a mile, and is covered with stalactites of different resplendent colors. There are some islands here, of which the most worthy of notice are, Saints, Seal, and Rabbit Islands, in the entrance of Tongue: the former presents a singular appearance, produced by the spouting of the waves of the sea through a natural tunnel. Ealan na Roan, or Seal Island, is two miles in circuit and inhabited by four families. Rabbit Island has its name from abounding in rabbits.

West of the Bay of Tongue is Loch Eribol, a spacious inlet, on the west shore of which is Port Ruspín, a small dry haven. Next in succession is Far-out Head, the point of a peninsula between Loch Eribol and the bay of Durness. Cape Wrath, or Barvehead (Ebudium), the north-west point of Britain, is a desolate rocky head, which apparently has its name from the furious beating of the waves and the rushing of the tide, which are increased by a rocky ledge running off from the cape five or six miles, with sixteen to twenty-four fathoms on it. Nine miles due north of the cape is a dangerous sunken rock covered at high water. The cave of Sino, near the cape, is seventy or eighty yards high, and extends backwards in a lake of which the extent is unknown.

II. THE WEST COAST OF SCOTLAND. *Dumfriesshire*.—The Solway Frith separates England and Scotland, and is nine leagues wide at its entrance, but is much encumbered by sand banks, that increase annually in height and surface, thereby contracting its navigation. At its head it receives the river Esk, which is also the boundary of the two kingdoms; and about a mile from which, on the Scottish side, is Gretna Green, celebrated in the annals of clandestine marriage. The other places of any note in Dumfriesshire are Anan, on a river of the same name, a neat town, with a small coasting trade and considerable fishery. Dumfries, on the east bank of the Nith, nine miles from its mouth, having vessels employed in the Baltic and Portugal trade, besides coasters. The Nith separates Dumfries and Kircudbright shires.

Kircudbrightshire.—The River Urr, the most eastern in Kircudbrightshire, is two miles wide at its mouth, spreading to a large basin and forming a good port. It is navigable eight miles for vessels of eighty tons, and by it lime is introduced into the interior from the opposite coast

of Cumberland. Kircudbright, on the west bank of the Dee, five miles from its mouth, is the county town. The Dee flows through Kenmuire Lake, and is navigable to Tongland, two miles above Kircudbright, above which its bed becomes encumbered with rocks. It abounds in salmon, perch, and eels. In the mouth of the river is the little island of Ross, the entrance between it and the east shore being one mile and a half wide, safe and bold on both sides. Above this island are several good anchoring places, with sixteen feet water at low water, and forty-six at high. Opposite Kircudbright the depths are eight feet at low water and twenty-eight at high. On the sand in the river below the town is St. Mary's Island, on which the earl of Selkirk has a mansion. Here are also the remains of a magnificent castle. The River Fleet empties itself on the east shore of Wigton Bay, and is navigable for vessels of eighty tons to the village of Gatehouse. Creetown, at the mouth of the Cree, which falls into the head of Wigton Bay, is a newly founded and increasing place, having a number of coasters, and vessels of 500 tons can ascend to it.

Wigtonshire.—Wigton Bay separates the counties of Kircudbright and Wigton; it is three miles broad for six miles from its entrance, and has several good anchorages. Borough Head is its west point. Ascending from which along the west shore the places are Whitehorn, having a good haven sheltered by a little Island, and passage vessels sailing to the Isle of Man in three hours, to Whitehaven in four, and to Dublin, Greenock, and Liverpool in eighteen. Wigton, the county town, is on a hill on the bank of the Bladenoch. Luce Bay is between Burrough Head, on the east, and the Mull of Galloway, on the west. Nearly mid-channel between these points are the rocks named the Scars. In foggy weather this bay has been frequently mistaken for the opening of the north channel, and vessels have run on shore on the quicksands, which line several parts of the bay, and out of which it is impossible to extricate a vessel. There are, however, several good fair weather anchorages in this bay, but in westerly winds there is always a great swell in it. The peninsula of Galloway is bold and cavernous on the west. Its south point, or Mull, is also the south point of Scotland. Port Nessick, on the west side, has a little pier for craft of five or six feet. Port Patrick is a neat town with a small haven and a handsome quay and light-house. A packet sails daily between it and Donaghadee, the distance being twenty miles. The principal trade is the import of cattle from Ireland. One mile south of it is the castle of Dunskey, on the brink of a frightful precipice. Loch Ryan is a deep inlet at the north extremity of the peninsula of Galloway, ten miles long and two broad at the entrance, widening to four miles within, and forming an excellent harbour, the only danger being a sand bank running off from the west shore, which makes it necessary to keep pretty close to the east shore. This sand-bank is covered with excellent oysters, and the bay abounds in cod, haddock, and other fish, lobsters and crabs. Stranraer, at the head of the Loch, is one of the

principal towns of the west of Scotland, neatly built, and a small river runs through it. Vessels of 300 tons ascend to within a mile of the town, and those of sixty tons lie at its quay. It has 1400 tons of shipping, and trades to Norway and the Baltic.

Airshire.—The Frith of Clyde is a deep gulf between the coast of Air, on the east, and the peninsula of Kintyre, on the west. The Air coast towards the south and north is rocky and elevated, but in the middle between the River Doon and Saltecoats, a distance of twenty miles, is a sandy beach, shoaling a considerable way off. As the ports of Air and Irvine, on this coast, can only receive vessels of 200 tons at spring tides, ships embayed in the curve can only find shelter in westerly winds under Lady Island four miles north-west of Air. The proper marks for anchoring here are the spires of the two beacons on the island in one, where a cable's length off shore, there is ten or twelve fathoms. Trune is the only place on this coast where a good artificial haven may be formed, as it is naturally sheltered from all winds but north-west by a rocky peninsula running a mile into the sea. A vessel taking shelter in it at present may anchor half a cable's length within its extremity, in three fathoms at half flood. It is a sea bathing place. Ballinhay, on the Stinser, is a good village. Four miles north of which is Ailsa Island, in the middle of the entrance of the Frith of Clyde. It is a conical rock, with many goats and rabbits on it, and the resort of soland geese and other sea birds, whose feathers, as well as the rabbit skins, pay the rent of the tenant, which is £25. On it are the ruins of an old castle. Grivan, on the river of the same name, is a poor village, with half a dozen boats. In the river the depths are nine to eleven feet.

Air, the county town, on a river of its name, is a small well-built place. The river is crossed by a bar with but twelve feet high water springs. It sends some vessels to the Baltic, and to Ireland with coals, and builds vessels. Irvine, three miles up a river of its name, has a haven with nine to eleven feet water at common springs; but with a gale from south-west the tide often rises to sixteen feet. It has a small ship-building establishment, some trade with the Baltic, and exports 24,000 tons of coals. Saltecoats, the most fashionable sea-bathing place of the west coast of Scotland, is built on a rock near Sandy Hills. It has a manufactory of salt, some coasting trade, ship building, and a herring fishery. Largs, opposite the Isle of Bute, has 1400 inhabitants, and is the general market of the neighbouring country. The River Clyde, supposing its entrance to be at the Isle of Bute, is four miles wide, but the channel is narrowed by the Great and Little Cumbay Islands, nearly in the middle. The tide flows above Paisley, and it abounds in salmon and trout.

Renfrewshire.—Greenock, on the south bank of the Clyde, is the emporium of the north and west of Scotland. In 1700 it was a mean village, but now carries on a direct trade to all parts of the world. It also builds a great many merchant ships for sale, and has a share in the Greenland whale fishery. The harbour is nearly dry at

low water, and vessels of eleven feet only can go in with spring tides.

Port Glasgow is three miles east of Greenock. The Clyde here is two miles wide, but so filled with banks as only to afford a channel 200 yards wide close to the Port Glasgow shore. The largest vessels lie here at the quays, or discharge their cargoes into lighters to be conveyed up to Glasgow. Renfrew, the chief town of the county, formerly stood on the bank of the Clyde, but the river, changing its course, deserted it. At present it communicates by a little canal.

Glasgow, the principal town of Lanerk, and the second of Scotland, is fifteen leagues above Port Glasgow, vessels of seventy tons ascending to its quays, the rise of tide being seven feet. A board of commissioners is here appointed to improve the river, and operations are constantly carrying on to deepen it. This city receives the greater part of the merchandise imported by the Greenock and Port Glasgow vessels.

Dumbartonshire.—The only port town of Dumbartonshire is Dumbarton, on the Leven, which, issuing from Loch Lomond, falls into the Clyde. The town has 2500 inhabitants, and some brigs belong to it. Near the town is a castle on a two-headed rock, washed on one side by the Clyde and on the other by the Leven. Gare Loch and Long Loch are the first of the numerous sea lakes that intersect the north-west coasts of Scotland. Gare Loch is seven miles long and two wide; and Long Loch is twelve miles long, approaching the celebrated fresh water lake of Lomond within one mile and a half. It separates Dumbarton and Argyle counties.

Argyleshire.—The county of Argyle is composed of several peninsulas formed by sea locks: the first of the latter is Loch Fyne, thirty miles long and three wide, in which a great herring fishery has been carried on at different periods. At its head is Inverary, the chief town of the county.

The peninsula of Kintyre is united to the main land of Argyle by an isthmus a mile broad, between the east and west Lochs Tarbet; the former is a safe and capacious basin, with an entrance only 100 yards wide. On the south point of the peninsula, named the Mull of Kintyre, is a light. Campbelltown, on the east side, has an excellent natural harbour, within the little island Dever; it is surrounded by high hills, and has a depth of six fathoms. Here is the grand rendezvous of the herring busses. Sanda Island, two miles north-east of the Mull, is celebrated in the Scandinavian annals by the name of Avona, as the rendezvous of the Danes in their descents on Britain. The circuitous and difficult navigation round Kintyre, from the Clyde to the Hebrides and north-west coast of Scotland, is now avoided by means of a canal, nine miles long, cut from Loch Gilp (a bend of Loch Fyne) to Loch Crinan. Having rounded Kintyre and passed West Loch Tarbet and Loch Crinan, above-mentioned, we come to Loch Fellan, on which is Obau, the principal place on the north-west coast of Scotland, though but a village. The Loch forms a harbour capable of receiving 500 merchant vessels. Dunstaffnage, or Loch Etive, the place next in consequence, is a small hamlet, with an ancient castle

Inverness-shire.—Lochs Linne and Lochabar, which communicate by a strait, penetrate into the heart of the bleak and dreary county of Inverness. At the head of the loch is Fort William, a triangular fortress, with two bastions and barracks for 800 men. The little town of Maryborough adjoins Castle Duart, or Loch Linne, and has a garrison of forty men from Fort William. Glenely is a poor hamlet opposite the east end of the Isle of Sky. A mile north of it are Berneira barracks usually occupied by a serjeant's guard.

Ross.—The western coast of the county of Ross has no place deserving even the name of village except Ullapool, on Loch Broom, a fishing station, established by the British Society in 1788; it may contain 500 persons. The loch is one of the most abundant in fish, and forms an excellent harbour for the largest fleets.

Sutherlandshire.—The west coast of Sutherland, which terminates at Cape Wrath, is worn into many sea lochs and inlets, where shipping can find shelter in all winds, but has not even a hamlet.

We have noticed the chief mountain ranges, and some of the most remarkable mountains of Scotland, in the article BRITAIN.

The first and great division of Scotland is into the Highlands and Lowlands. The former engross more than one-half of Scotland; extending from Dumbartonshire to the most northern part of the island, a space of 200 miles in length, and in breadth from fifty to 100. This tract, however, includes several extensive districts of low, fruitful ground, inhabited by people who are in all respects different from the mountaineers. Nothing can be more wild and tremendous to the eye of a stranger than the appearance of the Highlands, composed of blue rocks and dusky mountains heaped upon one another even above the clouds, their interstices rendered impassable by bogs, their sides embrowned with heath, and their summits covered with snow, which lies all the year unthawed, pouring from their jagged sides a thousand torrents and roaring cataracts that fall into gloomy vales or glens below, some of them so narrow, deep, and dismal, as to be altogether impenetrable by the rays of the sun: yet these mountains are in some places sloped into agreeable green hills fit for pasture, and skirted or interspersed with present straths or valleys capable of cultivation. Some authors have divided Scotland into that part which lies to the southward of the Frith, and that which lies to the northward. Others consider Scotland, agriculturally, as embracing three natural divisions. The first lies north of the chain of Highland lakes, which stretches from Murray to Mull, and consists of little else than dreary mountains and some moors; the second, or middle division, extends from this chain of lakes to the rivers Forth and Clyde; it is mountainous, but cultivated in the valleys, and on the eastern shore to a considerable extent; the remaining division is covered by hills with some mountains, but every where cultivated or improvable, and highly favorable for most branches of agriculture: and, though Scotland was far behind England in cultivation till the middle of the last century, it has now outstripped this country; particularly in

arable husbandry: in proof of which Mr. Loudon adduces the fact that the improvements introduced, or attempted to be introduced, on arable land in England and Wales are, with few exceptions, the implements and practices of Scotland. In the management of meadows or old pasture, Scotland cannot be conspicuous; as the climate is not naturally calculated for that kind of husbandry. The winters are too long and severe, and the surface too irregular: and in regard to live stock this writer admits the palm of improvement is undoubtedly borne away by England. But though there is not that enthusiasm in Scotland, nor such large prices given for capital specimens, it may be safely asserted that breeding and feeding are conducted as systematically and successfully there as in England.

The number of the counties is thirty-three, most of which are again subdivided by local acts of parliament into two or more districts for the purposes of police and internal economy; and several of them comprise a variety of territorial divisions, founded on the natural circumstances of the country. Berwick is thus divided into the three districts of the Merse, Lauderdale, and Lammermuir; Lanarkshire into the Upper, Middle, and Lower Wards; and, in the extensive Highland counties, the subdivisions are still more numerous. The number of parishes is 899, but liable to vary from annexations and disjunctions. Every parish contains a church and burying-ground, with a manse, or dwelling-house, and a few acres of land as a glebe, for the clergyman, who, by a happy provision and observance of the law, is always resident; and a school, with a schoolmaster's house and garden. In several of the towns one church has two ministers, so that the number of the clergy is greater than that of the parishes. In 1813 the parochial clergy amounted to 938, besides assistants. An indefinite number of parishes form the ecclesiastical division, called a presbytery, and several presbyteries a synod.

Rivers.—In the northern part of Scotland are several fine streams, amongst which the Beauty, Canon, and Naver, may be mentioned; but those of the middle division of the country far surpass them. Here rise the Spey, the Dee, the Don, the north and south Esk, and the Tay, one of the largest rivers of Great Britain. In the south of Scotland we have the Forth, the Clyde, the Tweed, and numerous minor rivers which empty themselves into the Irish sea and Solway Frith; the Ayr, the Girwan, the southern Dee, the Nith, the Annan, and the Liddel. The lakes or lochs of Scotland are also numerous and have been many of them long celebrated for their grand and picturesque scenery. Of these, the chief are Loch Lomond, Loch Aw, Loch Tay, Loch Ness, Loch Shin, Loch Lochay, Loch Naver, Loch Leven, &c.

Minerals.—Scotland has boasted mines of the precious metals, as we have seen in the historical part of this article; but no mines are now wrought solely for silver or gold; the lead mines are, however, rich in the former. In the last century a silver mine was wrought in the Ochil hills, in the parish of Alva. Ironstone, iron ore, and septaria ironstone, are abundant, and

copper has been discovered in many places. Other metallic substances discovered here are cobalt, bismuth, manganese, wolfram, plumbago, and mercury. Coal is abundant in the southern and middle districts, running from north-east to south-west, and limestone, freestone or sandstone, and slate, are found in every district. Of late, too, attention has been paid to the marbles, which prove very fine. Most of the gems and precious stones, except the diamond, have been found in Scotland. Pearls are found in the great horse mussel (the *mytilus cygnius* and *anatinus*), a native of the northern rivers; in the common oyster and in mussels. The sapphire, of equal hardness with the oriental, is found in several places, and of different shades, from a deep red to a transparent white. The topaz is found in the mountains of Marr, and in the range which stretches towards Perth, Inverness, and Banff. It is the most brilliant of the Scottish gems hitherto found. It occurs in rolled pieces, often imbedded in the granite, and most commonly of a very light green, or greenish white. The ruby and hyacinth have been found in Fifeshire, adhering to the rocks. They are in general small, and of inferior lustre. Emeralds and amethysts are also frequently met with, and some have been valued at thirty or forty guineas. Garnets are found in the Highlands of good sizes; and agates, under the various names of onyx, sardonix, and pebble, in every part of the country where basaltic rocks are found. The Scotch pebbles are of many beautiful hues; blue and white, red and white, in veins, and in every gradation of shade. Jasper is so abundant as to be included among the building stones; there are also many delicate specimens to be met with. The rock crystal, commonly denominated cairngorum, from the mountain of that name in Banffshire, is found in every mountain in the primary districts of Scotland. The colors are yellow of different shades, and clove brown, approaching to black. The deeper yellow specimens sell high: the clove brown colors, more peculiarly termed cairngorums, are also valued in jewellery; and chalcedony, equal in hardness and other qualities to the oriental, is found in Fife. The northern and southern mountains are chiefly composed of granite: Ben Nevis is said to be equally beautiful with the Egyptian; at Portsoy that singular kind of granite is found called Moses' Tables; besides these, there are various rare and curious fossils.

Springs.—The chalybeate springs are very numerous; we may particularise those at Moffat, Peterhead, Dunse, and Aberbrothock. Sulphureous springs are also found in the neighbourhood of Moffat, and near Edinburgh, at St. Bernard's well. Some of the springs also hold some neutral salt dissolved, as at Pitaithly. Many of the springs proceeding from a bed of limestone, acquire a petrifying property, of which there are examples at the Dropping Cave of Slains in Aberdeenshire, and in many places in Lanark and Ayr.

Of the Caledonian *forests*, the most considerable remains are in the districts of Mar and Glentnar in Rannoch, in Glenmore and Strath-spey, and in Alfarg in Ross-shire. Fir is the

most common wood; but the oak and other deciduous trees are not wanting. Some of these forests extend thirty or forty miles in length, and great quantities of timber are floated down the Spey, the Dee, and the Tummel.

The *soil* must be considered in general inferior in point of fertility to England; but there are many valleys or straths, even in the Highlands, which are productive; and the three Lothians, Berwickshire, Fifeshire, the Carse of Stirling and Falkirk, Strathern, the Carse of Gowrie, the province of Moray, &c., contain excellent land. In the middle and southern districts the country has every where assumed a most marked and visible improvement. The soil of Scotland produces wheat, rye, barley, oats, pease, beans, hay, potatoes, turnips, &c.; also flax and hemp, but in no great quantities, nor does the soil appear to be well qualified for their production. Horticulture is making rapid progress every where, and apples and other fruits are produced in abundance. Of late many extensive tracks of waste land have been planted with wood, and the success attending this improvement evinces that the soil and climate are well adapted for forest trees. The Scotch fir is the most common pine in the Scottish plantations; the larch has also been introduced, and is a valuable acquisition. Ash, elm, plane, beech, oak, laburnum, and a great variety of other kinds, are intermixed in the plantations, and have a fine effect. The juniper shrub grows naturally on the hills, and the whortle or blaë berries grow on the highest mountains. The alga marina, or sea weed, is in great luxuriance on the rocky coasts, and becomes when burnt into kelp, a valuable article of commerce.

Speaking of the west of Scotland at the present period as contrasted with sixty years ago, a practical writer observes,—“Good roads and wheel carriages are in such general use, that we reckon them as common place; yet, by reflecting on the former situation of this country, we may soon form a proper idea of their importance. About the period above-mentioned, hay was a scarce article in Glasgow; and in some of the surrounding parishes, ten or twelve miles off, the roads were so bad, that their hay intended for sale was made up in trusses of ten stones only, and it took a whole day's work for a man and horse to bring that quantity to town, a business which was then performed by placing it across the horse's back, and the man led the animal with one hand, while he employed the other to balance it, owing to the ruggedness of the roads. If hay was scarce at that time, money was more so, for, after all the labor of making and transporting the hay, all that the farmer received for it was 3*d.* per stone, or 2*s.* 6*d.* for the whole load, out of which he had to pay part of his rent and the expenses attendant upon raising the crop and keeping his horse. Now-a-days a horse and cart can bring into town 120 stones from the same district, with the greatest ease, and the farmer will be far better paid for his trouble. Sour or butter milk was also then, as it still is, an article much in use in this country, and it was likewise all brought in upon horse's backs. I have myself seen about thirty

horses in a morning, bring in two small casks a piece, one on each side of them, not exceeding in content (from recollection of their appearance) a vessel of forty pints each. At present the farmer can, with the greatest ease, bring in upon a cart a cask containing 140 pints, and frequently two of this content, so much are our roads improved, and the facility of communication with the surrounding country increased. In these times, on almost all farms, the country people had cars for bringing in their crops; these cars are now so completely given up that few individuals in this town under thirty years of age have ever seen them, though I believe they are in a small degree still used in very steep hilly parts of the country, or where the crop is to be brought in from high grounds. Farmers now only use carts, drawn by good horses, and well made harness; whereas formerly the collars for these animals were made of straw or rushes. The farming system is equally improved in every other respect; you now see fields of wheat waving their yellow heads, in places which formerly produced but a very poor crop of oats; and excellent green crops are common over all the country. The comfort of the cottagers has partaken of the general improvement; instead of clay, they have wooden floors in their cottages, and even in these humble abodes you will frequently find carpets and other luxuries which were unknown to our forefathers. From these, and many other examples that might be adduced of manifest improvement in the comfort of the agricultural part of the community, we may see the gradual progress of civilisation, and the superior blessings we enjoy when compared with those of the former inhabitants of this part of the island.

Though somewhat departing from our arrangement, we shall allow this writer to speak of other improvements in his neighbourhood:—'When we turn, on the other hand, to the manufacturing portion, we are struck in a still more forcible manner with the rapid strides of improvement in their varied departments. The weaving manufacturer, for instance, who, at the same period to which I have so repeatedly called your attention, employed thirty or forty looms to work for him, was esteemed a person of very extensive trade and importance in society. Now, some individuals in this line employ 1200 looms, and in many shops there are 200 under one roof. The most wonderful improvement, however, in this branch of manufacture, is that of the steam loom; and, though at present it is restricted to the weaving of plain cotton goods, yet, I believe, the period is not far distant when it will be extended to the fabrication of all kinds of woollen manufactures whatever. I have indeed seen within these few days an ingenious English mechanic who has lately visited Lyons, and he informs me that the best weaver in that city can only earn a franc a day, and that at the finest work, namely, the fabrication of those beautiful silk ribbons so much admired by our ladies. Having visited Paisley, our grand workshop of ingenious manufactures, he was pleased with the beautiful fabrics he saw there, and he is determined to establish in the neighbourhood of Glas-

gow a silk manufactory, which he has no doubt will ere long rival those of Lyons. By the improvements he intends to introduce from what he has seen at both places, united to his own skill, I have little doubt but Glasgow will soon become as famed for her silk manufactures as any place in the world.

'The Great Canal affords us another instance of the improvements in this part of the country. It has been so long in use that we can scarcely sympathise with strangers when, standing at the Broomielaw and viewing our shipping, they turn round and behold immediately above the city a navigation 150 feet higher than the level of the Clyde; and when we consider that so many vessels ply on this canal, that £40,000 was collected at Port-Dundas in the year 1824, to which if we add that from £10,000 to £15,000 were collected at the sea-port and Bowling Bay, we cannot fail to be convinced of the great importance of this navigation. But, independent of the advantages of this inland navigation, there is no spot round Glasgow so well deserving the inspection of strangers; for, at the basin of the canal, you are elevated above the whole city, and enjoy a most extensive view over the whole surrounding country, having Dumbarton and Paisley at all times in sight, and in clear weather even the island of Arran, objects of interest which are frequently overlooked by the mere passenger, who generally confines his attention to those at hand. Even in this case, however, the canal affords scope for interesting reflection; here may be often seen vessels belonging to the French, the Danes, the Dutch, and other European states, and even some vessels have sailed from the Black Sea through this canal to Port-Dundas, and thence to the West Indies. The Paisley and Ardrossan Canal (though it has not yet reached the latter place) is also an object of very considerable interest to the districts through which it passes; but, not being finished, its trade is on that account much confined, and not in a very prosperous state. One feature, however, in its construction deserves to be noticed, namely, that it passes through a tunnel under some streets and houses in Paisley. About the period formerly mentioned, there was only one bridge over the Clyde, at or near Bothwell, and that so narrow that two carts could not pass each other properly; now there are three commodious bridges for carriages near the city, and one for foot passengers.'

The *climate* of Scotland, from its insular situation and high latitude, is cold and variable, but the cold in winter is not so intense as in similar latitudes on the continent, and seldom so severe as in the south of England: that dreary season, on the other hand, is more protracted than in those countries. The greatest height of the thermometer that has ever yet been observed is 92° Fahrenheit, and the lowest at Edinburgh, 31st of December, 1783, is 3° below zero. Its ordinary range is from 84° to 8°, though it seldom maintains these extremes for a length of time. The annual average temperature may be estimated at from 45° to 47°. The average quantity of rain that falls appears to be from thirty to thirty-one inches. The western coasts, owing to the general

prevalence of the west winds from the Atlantic Ocean, is more liable to rain than the eastern. In general, the proportion of rain is one-fifth more. It has been estimated that it rains or snows on the west coast for 205 days annually.

The winds are, as might be expected, extremely variable, both in force and direction. In the more elevated districts, the glens serve as funnels, to receive the blast which was proceeding, perhaps by many points, in a different course, but which, being arrested by the mountains, is now diverted into the valleys, and, gathering strength from the interruption, sweeps along with redoubled fury. On the west coast it has been repeatedly asserted, by intelligent observers, that the wind blows, for two-thirds of the year, from a southerly point. In the summer and autumn these winds frequently are injurious to the grain and fruit. North or north-east winds appear to prevail, especially on the eastern coast, through somewhat less than one-third of the year. They generally prevail in the months of March and April, frequently extending into those of May and June, and generally throughout the summer. South-west winds prevail nearly two-thirds of the year; hence trees not sheltered incline to the north-east. Owing chiefly to the vicinity of the sea, the air in general is more pure, temperate, and salubrious, than might be expected in so northern a climate. The following is an abstract of a register of the weather, kept near Perth, for the year 1820: the temperature is thought not very different from the average temperature of Scotland, except that the number of rainy days, and quantity of rain, are less than on the western coast.—(From the Edinburgh Annual Register, 1820.)

	Fair Days.	Rainy Days.	Quantity of rain.	Mean Temperature.
January . .	21	10	1·321	30·4
February . .	24	5	1·198	39·1
March . . .	25	6	0·332	40·6
April . . .	24	6	0·690	46·7
May	10	21	5·447	49·4
June	18	12	1·745	54·6
July	22	9	1·635	57·6
August . . .	12	19	2·228	56·0
September .	16	14	0·973	52·6
October . . .	20	11	2·295	44·5
November . .	20	10	1·658	41·6
December . .	20	11	2·165	38·7
	232	134	21·687	45·98

The wild *animals* of Scotland include the fox, badger, otter, wild-cat, and hedge-hog; but all are now becoming scarce: the stag, wild roe, hare, rabbit, weasel, and mole. The domestic animals are the same as those of England; but the native breed of black cattle and sheep is considerably different, being smaller in size, and thought to be more delicious food. The colley, or true shepherd's dog, is peculiar to Scotland. Pheasants are found in the woods, but are scarce; also the beautiful capercaillie, or cock of the

wood, now become exceedingly rare; the ptarmigan, the black game, and grouse, are abundant in the heathy mountains; and, in the low grounds, partridges, snipes, plovers, &c. Scotland has also most of the English singing birds, except the nightingale. All the aquatic fowls of temperate climes are also common in the islands. The domestic fowls are the same as those of England. The fish are the same which are usually found in the North Sea, and the rivers teem with trout, salmon, eels, &c.; the lakes with pike and perch. Whales are sometimes thrown upon the coasts of Orkney, Shetland, and the Hebrides; and, besides other fish which are caught for their oil, we may mention the ceorban, or sun-fish, the fishery of which is prosecuted with considerable success. Shell-fish are abundant on all the coasts.

For a considerable time after the union with England, this country appears to have made little progress in *manufactures*; and it was not till about the year 1750 that a spirit of enterprise and ingenuity was excited, which has ever since continued. Scotland at present carries on almost every species of manufacture. Flax and hemp are manufactured into sheetings, osnaburghs, bagging, and canvas, which are made chiefly in Forfarshire, and are finally exported, the first of these at least, to the West Indies, and the last is purchased for the use of the British navy: but the manufacture of finer linen has fallen off in Scotland, having been superseded partly by the importation of Irish cloth, and partly by the substitution of cotton manufactures. The spinning of flax by the hand used to be an important branch of industry; but spinning machinery has now almost banished it. These machines have now been generally introduced in the counties of Aberdeen, Mearns, Fife, and Angus: the cotton manufactures have also been carried, particularly in the neighbourhood of Glasgow and Paisley, by means of machinery, to an astonishing degree of perfection in Scotland; and attention has been particularly directed to those of a finer quality. Muslins and other fabrics are beautifully executed: as well as brocades, lappets of all sorts, imitation shawls, plain and Lincce gauzes, spidered, seeded, and numerous species of draw-loom. Many of these fabrics, with the entire mechanism by which they are executed, are exclusively of Scottish invention. Immense quantities of cambrics, shirtings, sheetings, tweels, stripes, checks, pullicates, gingham, shawls, &c., are also manufactured in Scotland in a superior manner. Of cotton thread, likewise, large quantities are exported to the West Indies. Calico printing in all its branches is also carried to a great extent.

The *iron-works* established in Scotland deserve particular attention, and that at Carron, near Falkirk, is the largest manufactory in Europe. Iron is not only extracted from the ore, but it is finished into every variety of form. The quantity of metal smelted at Carron is about 6500 tons yearly, and about 2000 people are constantly employed; and, from all the different works in Scotland, above 30,000 tons of iron are annually extracted. A considerable proportion of Scottish ironmongery is exported to America, the West Indies, and other British colonies.

An idea may be formed of the number of workmen employed on timber of various kinds, and the value of the articles they make, when it is known that in Scotland there are about 3600 water-mills, 5000 thrashing-mills, above 100 wind-mills, and from 350 to 400 steam-engines, employed in preparing flour, meal, barley, snuff, bark, and lint; for teasing, carding, roving, and spinning wool, flax, and cotton; for preparing dye-stuffs, bleaching salts, paints, fire-clay, &c.; for winding, weaving, tambouring, printing, washing, wauking, calendering, &c.; for boring, blowing, hammering, &c.; and for raising water and minerals. The manufacture of machinery is therefore a most important branch of Scottish industry. Coach-making, musical instrument-making, &c., are also carried on in all the principal towns; and ship-building forms a most important branch of national industry. The average of the number of vessels belonging to the ports of Scotland amounts to 2509 annually. Minor manufactories we cannot here notice. In all of the considerable towns there are tanneries, breweries, and distilleries, on an extensive scale; and it may be generally remarked that almost all articles of ordinary use are manufactured in Scotland. The fisheries have been prosecuted likewise with great industry and success. See our article FISHERIES.

In the time of Cromwell the shipping of Scotland consisted of only ninety-three vessels, carrying 2724 tons, and eighteen barks. Soon after, however, her foreign trade with the northern and eastern states of Europe began to increase; and the Dutch cultivated a connexion with the Scots for the conveniency of prosecuting the herring fishery on the coasts of Scotland. About the middle of the last century an extensive commercial intercourse was carried on from the ports on the eastern coast of Scotland, to Holland, Norway, Sweden, and the states on the shores of the Baltic. Of late years the imports consist of flax, hemp, yarn, linen, iron, corn, wood, tallow, and other commodities produced in those countries; and, in return, colonial produce, cotton goods, and other manufactured articles are exported. The trade between Scotland and Russia, including that of Archangel, forms the most considerable branch of the commerce of the eastern coast; and the chief shipping ports are Leith, Dundee, Arbroath, Montrose, Aberdeen, Peterhead, Banff, and Inverness. The trade with Spain, Portugal, and the Mediterranean, is carried on from Leith and other ports; and the connexion with Canada extends to all the most considerable towns on the east coast of Scotland. The commerce of the west centres almost entirely in the Clyde, which is the grand emporium of the American, West Indian, and South American trade. From Greenock a constant intercourse is carried on with the West Indies, with the British colonies in North America, with the United States, the Brasils, and South America. Several vessels have also sailed from that port, to carry on the trade to India, since 1814. From the eastern ports a trade is carried on with the northern countries lying round the Baltic; and the coasting trade with London is now placed under admirable regulations.

The following is the *revenue* for the first four years of this century:—

	£	s.	d.
1801 . . .	1,985,794	7	11½
1802 . . .	2,230,993	8	3
1803 . . .	2,246,028	0	3½
1804 . . .	2,171,973	16	8
1805 . . .	2,692,624	19	9½
1806 . . .	3,182,677	13	11
1807 . . .	3,558,784	7	7½
1808 . . .	3,544,111	7	7½
1809 . . .	3,632,832	2	3
1810 . . .	4,188,814	15	0
1811 . . .	4,031,347	1	7½
1812 . . .	4,236,797	5	0½
1813 . . .	4,383,751	7	10
1814 . . .	4,483,014	10	10½

The *population* of Scotland is naturally divided into the two classes of Highlanders and Lowlanders; differing in manners, language, and character, as much as many distinct nations. This distinction cannot be better exhibited than in the language of Mrs. Grant:—

‘The low country was inhabited by a people driven at a later period from the south, by successive invaders and oppressors, who were further advanced in the arts of industry and the progress of civilisation than the Highlanders, whom these last regarded as intruders, and who had scarcely any thing in common with them. Though their mountain chiefs were in due time brought to yield a reluctant fealty to the Scottish monarchs, their followers were scarcely conscious of this submission, and most unwilling to believe that a greater man than their own chief existed. No two nations ever were more distinct, or differed more completely from each other, than the Highlanders and the Lowlanders; and the sentiment with which they regarded each other was at best a kind of smothered animosity.

‘The Lowlander considered the Highlander as a fierce and savage depredator, speaking a barbarous language, and inhabiting a gloomy and barren region, which fear and prudence forbade all strangers to explore. The attractions of his social habits, strong attachments, and courteous manners, were confined to his glens and to his kindred. All the pathetic and sublime charms of his poetry, and all the wild wonders of his records, were concealed in a language difficult to acquire, and utterly despised, as the jargon of barbarians, by their southern neighbours. If such were the light in which the cultivators of the soil regarded the hunters, graziers, and warriors of the mountains, their contempt was amply repaid by their high-spirited neighbours. They again regarded the Lowlanders as a very inferior mongrel race of intruders; sons of little men, without heroism, ancestry, or genius. Mechanical drudges, who could neither sleep on the snow, compose extempore songs, recite long tales of wonder or woe, or live without bread and without shelter, for weeks together, following the chase. Whatever was mean or effeminate, whatever was dull, slow, mechanical, or torpid, was in the Highlands imputed to the Lowlanders, and exemplified by some allusion to them: while, in the low country, every thing ferocious

or unprincipled, every species of awkwardness or ignorance, of pride or of insolence, was imputed to the Highlanders.

'No two communities, generally speaking, could hate each other more cordially, or despise each other more heartily. Much of this hatred, however, proceeded from ignorance of each other's character and manners.'—*Essays on the Highlanders.*

The Highlanders are a brave and hardy race, ardently attached to the manners, customs, and language of their forefathers, their chieftains, and their country. Stout and active, they are generally capable of sustaining almost every bodily privation and hardship; but their ancient costume has now fallen greatly into disuse, and a Highland chief, in the full dress of his country, is seldom seen. This dress, however, is retained by many of the peasantry. Over the shirt, the Highlander wears a waistcoat of the same kind as the plaid, which is twelve or thirteen yards long, and made of a woollen stuff, called tartan, which is composed of various colored stripes, disposed at right angles to each other, and in the arrangement and harmony of which his taste is often displayed. The plaid, thrown over the shoulder, is sometimes fastened round the waist with a leathern belt or girdle, and hangs down before and behind, supplying the place of small cloths. This dress the Highlanders call a phelg, the Lowlanders a kilt. A kind of short petticoat, made of the same variegated stuff, is also frequently worn, and is called philebeg; this reaches nearly to the knee, and with short stockings made of tartan, and tied below the knee with garters formed into tassels, completes the dress. A large leathern purse, richly adorned with silver, hanging before, was always an appendage to a Highland chieftain's dress. Almost every Highlander has a large pouch of skin, dressed with its hair on and ornamented with tassels, dangling before him, to contain his money and tobacco. The lower class wear a flat blue cap, of a particular kind of cloth, called a bonnet, and brogues of untanned skins. The female dress in the Highlands consists of a petticoat and a kind of jerkin, with close sleeves, over which they wear a plaid fastened under the chin, and falling in folds to the feet, sometimes most gracefully. Round the head they fold a piece of linen of different shapes. The young women seldom have more than a riband for this purpose. Shoes and stockings are little worn by the Highland females, except the higher classes, who dress as in England. In bad weather the plaid, instead of resting upon the shoulders, is thrown over the head, and then resembles the mantella of Spain.

The generality of the cottages of the Highlands are so unlike what are to be seen in England, that we shall insert Sir John Carr's description of what they were about fifteen years ago. 'At a distance,' he says, 'they resemble piles of turf. In general they are built in glens and straths, on the side of a lake, or near a river or stream, adjoining to which there is a little arable land. The walls are built of turf or stones, according to the nature of the adjoining soil, and raised about six feet high, on the top of which a roof

of branches of trees is constructed; this is covered with squares of turf, of about six inches thick, closely pressed together, and put on fresh from its parent moor, with the grass or heath upon it, which afterwards continues to grow, and renders it difficult for a traveller, unless he be very sharp-sighted, to distinguish at a little distance the hut from the moor. A tolerable hut is divided into three parts: a butt, which is the kitchen; a benn, an inner room; and a byar, where the cattle are housed. Frequently the partition of the chambers is effected by an old blanket, or a piece of sail-cloth. In the kitchen, and frequently in the inner room, there are cupboard-beds for the family; or, what is more frequent, when the fire on the ground is extinguished, they put their bed of heath and blankets upon the spot where it has burned, on account of the ground being dry. A true farmer loves to sleep near the byar, that he may hear his cattle eat. These patriarchal dwellings frequently tremble, and sometimes fall before the fury of the tempest.'

The Highlander appears to have no idea of property beyond that of sheep and cattle. His 'whole wealth consisting of cattle, what he most valued himself upon was that pride and joy of life, 'a fine fold of cows,' to use his own favorite phrase. With his cows his rents were paid, and with his cows his daughters were portioned and his sons established in life.'

As he is almost invariably a farmer, the distribution of labor in a Highland farm becomes an interesting topic. 'The lesser boys take charge of the weaned lambs; the stronger attend the goats to the rocks and perilous precipices, upon which they love to browse; the young girls are employed at the distaff; the young men attend the cattle upon the mountains, while the father cultivates his little patch of ground, repairs his hut, of which he is the designer and builder, and upon which occasion the knife, the axe, and the auger, are his simple tools. In this respect, however, he is better provided than the Russian boor, who works with more skill, neatness, and ingenuity, with only his axe. At evening fall, the children return, the bearers of fish which they have caught in some neighbouring stream, and of alder bark, and buds of heath and moss, with which their mother may stain her home-spun plaid. Among the Highlanders, both old and young, the season of 'summer flithing,' when they remove for the summer to the mountains with their flocks, is always hailed with a rapturous welcome. At this time they live in the mountains in shealings, or little huts constructed for the purpose, and sleep upon beds of heath, leading a life perfectly natural until the autumn is advanced, when they return to their glens.' The same author also remarks that 'the hardihood of the islander is proverbial. It is well known that in cold dry windy weather, when these mountaineers are obliged to sleep among the hills to attend the cattle, they soak their plaid in a burne or brook, in which having rolled themselves, they select a spot of heath on the leeward side of some hill for their bed, where they are kept warm by the wet, which prevents the wind from penetrating the stuff.'—*Sir John Carr's Caledonian Sketches*

Mrs. Grant, the wife of a minister, settled in the Highlands, seems eminently to have possessed the requisite qualifications for observing all the minute shades of character by which they are discriminated. The following particulars are selected from her admirable Essays.

On the secluded character of the country, and the obstacles to its improvement, she observes, 'There really was not room for a stranger, in a country already overpeopled in proportion to its productions. Especially when it is considered that every inch of ground was occupied by heads of families, who were perhaps the tenth generation on the same spot, and held their lands from a patriarchal chief, to whom, and his ancestors, they and their forefathers had performed services the most important. One of these tenants could not be removed to make room for a stranger, without giving mortal offence to the whole tribe, their ideas of morality as well as attachment being outraged by such a proceeding. Thus, though a stranger passing through the country, or merely visiting it, was treated with kindness, and indeed with the most liberal hospitality, if he attempted to settle there, he had nothing but prejudice and persecution to expect; by attempting to domicile himself, he lost all the courtesy of a stranger, without establishing any claims to good-will as a friend or a neighbour. Such was the state of society; and so little could a single individual, even in tolerable circumstances, do for himself, that a man who did not possess the general good-will, and receive the hourly good offices of his neighbours, lived in the state of an outlaw, excluded from the comforts, and deprived of the privileges of social life.

'No Highlander ever once thought of himself as an individual. Amongst these people, even the meanest mind was in a manner enlarged by association, by anticipation, and by retrospect. In the most minute, as well as the most serious concerns, he felt himself one of many connected together by ties the most lasting and endearing. He considered himself merely with reference to those who had gone before, and those who were to come after him; to those immortals who lived in deathless song and heroic narrative; and to those distinguished beings who were to be born heirs of their fame, and to whom their honors, and perhaps their virtues, were to be transmitted. Whatever might be the motive that produced a marriage, it was seldom unhappy. To a genuine Highlander, the mother of his children was a character so sacred, that to her he was never deficient in indulgence, or even respect. To her he could forgive any thing, provided her conduct did not impeach the honor of their mutual progeny, or create doubt, where suspicion would be misery.

'A Highlander thrown prematurely among the polished classes of society, and one obliged to mingle with the lower orders of civilised countries, equally cease to be fair specimens of the mountain race from which they spring: the one becomes that sort of being which good qualities, good education, and good company every where form; the other, whom ignorance excludes from the decent class of artisans, is obliged to mingle with the dregs of the people, and with their vulgar

language he acquires their low ideas, and, shrinking in the ungenial clime of plebeian grossness, he assumes an entirely new character. If any thing recovers him from his hopeless apathy, it must be the 'spirit-stirring fife,' or the martial pipe of his ancestors, calling him to the field of honorable strife. Here, if at all, the Highlander resumes the energy of his character, and finds room to display once more the virtues of habit and of sentiment; for here he is generally associated with beings like himself. Here his enthusiasm finds an object; his honorable feelings, his love of distinction, his contempt for danger, and, what is of equal importance in the military life, his calm fortitude, stern hardihood, and patient endurance, all find scope for exercise. Here, too, mingled with his countrymen, he tells and hears the tales of other times,—beguiles the weary watch of night with songs that echoed through the halls of his chief,—or repeats, on the toilsome march, the love ditty inspired by the maiden that first charmed him with the smile of beauty, and the voice of melody in his native glen. These recollections and associations preserve, in pristine vigor, the fairest trait of the Highland character. Social and convivial as Donald's inclinations are when others join the mirthful band, and share the cup of festivity, he retires to his barrack or his tent, and adds the hard saved sixpence to the little hoard which the paymaster promises to remit home, to pay his father's arrear of rent, or purchase a cow for his widowed mother.

'Poor Donald is no mechanic; he cannot, like other soldiers, work at a trade when in quarters; yet day after day, with unwearied perseverance, he mounts guard for those who have this resource, to add a little to this fund, sacred to the dearest charities of life—the best feelings of humanity. This sobriety preserves alive the first impressions of principle—the rectitude, the humble piety, and habitual self-denial, to which a camp life, or unsettled wanderings that belong to it, are so averse. There are instances, of a very late occurrence, not of individuals only, but of whole regiments of Highlanders, exercising this generous self-denial, to remit money to their poor relations at home, to an extent which would stagger credulity, were it particularised.

'The officers of one of the regiments to which I allude, finding such means remitted through their hands, and seeing their men constantly either on guard or at hard labor, began to fear that they were living too low to support such perpetual exertion. Every day they visited the barracks, to be assured that their men made use of a proportion of animal food. They were at first deceived by seeing pots on, with meat boiling in them, as they thought; but, on a nearer inspection, found that in many of them a great stalk of what we in Scotland call kail was the only article contained in them. They brought long sticks with them afterwards, and sounded the pots, to make sure. This was indeed

'Spare fast, which oft the gods doth diet.'

'I should rather have kept this quotation to grace another instance of still nobler self-denial,

which ought to be recorded in a more durable manner than this perishing page will admit of:—

‘A Highland regiment, commanded, I think, at that time, by general Macleod, was, during the wars with Tippoo Saib, engaged in an unfortunate rencontre, in which above 200 of them fell into the hands of that remorseless tyrant. They were treated with the most cruel indignity, and fed upon a very sparing portion of unwholesome rice, which operated as a slow poison; assisted by the burning heat of the sun by day, and the unwholesome dews of night, to which they were purposely exposed, to shake their constancy. Daily some of their companions dropped before their eyes, and daily they were offered liberty and plenty, in exchange for their lingering torture, on condition of relinquishing their religion, and taking the turban; yet not one could be prevailed upon to purchase life on these terms. These Highlanders were from the isles, and entirely illiterate. Scarcely one of them could have told the name of any particular sect of Christians; and all the idea they had of the Mahometan religion, was, that it was averse to their own; and that, adopting it, they should renounce Him who had died that they might live, and who loved them, and could support them under all sufferings. The great outlines of their religion, the peculiar tenets which distinguish it from every other, were early and deeply impressed upon their minds, and proved sufficient in the hour of trial. The self-devoted band at Thermopylæ have had their fame; they expected, and deserved it. These did not even aspire to such distinction; far from their native land, without even the hope of having their graves beheld by the eyes of mournful regret, they passed away unseen, like the flower in the desert, when its head is heavy with the dews of the night, and the sun arises in its strength, to scatter its leaves on the gale. The voice of applause—the hope of future fame—the sympathy of friendship—all that the heart leans to in the last extremity, was withheld from these victims of principle. It was not theirs to meet death in the field of honor, but the mind, wrought up to fervid eagerness, went forth in search of him. They saw his slow approach; and, though sunk in languid debility, such as quenches the fire of mere temperament, they never once hesitated at the alternative set before them. Their fortitude at least should be applauded, though their faith and the hope that supported them were not taken into the account.

‘Nature never meant Donald for a manufacturer; born to cultivate or defend his native soil, he droops or degenerates in any mechanical calling. He feels it as losing his cast; and, when he begins to be a weaver, he ceases to be a Highlander. Fixing a mountaineer on a loom too much resembles yoking a deer to a plough, and will not in the end suit much better.’—*Essays on the Highlanders.*

For the following summary of the *antiquities* and curiosities of nature and art in Scotland, we are principally indebted to Dr. Myers’ able *Geography*, vol. i.

Druidical monuments are to be found prin-

cipally in the northern parts of Scotland, and the adjacent isles. They are easily distinguished by their circular forms; but they are not of equal magnitude with those of the same kind in South Britain. The vestiges of Roman antiquities, such as the stations of their legions, their castella, and their pratentures, or walls, can now only be discovered by critical inspection. Various Roman coins, urns, utensils, and inscriptions, have been found in several parts, and especially near the site of the celebrated wall which extended from the Frith of Clyde to that of Forth. It was marked out by Agricola, but completed by Antoninus Pius, and is still discernible. This wall, which has been traced with great precision by antiquaries and historians, is called Graham’s Dyke by the country people, from a tradition that a Scottish warrior of that name was the first who passed it. The remains of several Roman camps are also visible in this part of Scotland. One, near the foot of the Grampian Hills, is perhaps the most striking and best preserved specimen in North Britain. It is situated at Ardoch, in Perthshire, and is generally thought to have been the camp which Agricola occupied before his engagement with the Caledonian king, Galgacus. The vestiges of this camp still present five ditches and six ramparts on the south side; and three of the four gates, which led into the area, may yet be distinctly traced. A Roman temple, in the form of the pantheon at Rome, stood on the banks of the Carron, supposed to have been built by Agricola, or his successors, and dedicated to their god Terminus, as it stood near the confines of the empire. This venerable relic of antiquity was barbarously demolished for the purpose of repairing a mill-pond.

The monuments ascribed to the Picts are singular buildings. The two principal were hollow columns; the one at Brechin in Angus, and the other at Abernethy, in Perthshire. That at Brechin is the most entire, and is covered with a kind of spiral roof of stone, with three or four windows above the cornice. It consists of regular courses of hewn stone, tapering to the top. In Perthshire is a barrow, which appears to be of British origin, and resembles the hull of a ship with the keel upwards. It is styled Ternay, which some have supposed to be a contraction of *Terræ navis*, the ship of earth. Danish camps and fortifications are discernible in several northern counties of Scotland, and are distinguished by their square forms and difficult situations. The vestiges of ancient Scottish antiquities are often both curious and instructive, as they frequently relate to events in their history; and, from the emblematical figures with which they are ornamented, were evidently erected to commemorate victories. These monuments are chiefly obelisks, and are commonly called Danish stones. Of these, the great stone near Fortrose, in Moray, surpasses all the others. According to Mr. Gordon it ‘is perhaps the only one of that kind in Europe; it rises about twenty-three feet above the ground, and is, I am credibly informed, not less than twelve or fifteen feet below: so that the whole height is at least thirty-five feet and its breadth nearly five. It is one

entire stone, with a great variety of figures in relief carved on it, and some of them are still visible; but the injury of the weather has obscured those towards the upper part.' This monument is by some ascribed to the Danes.

The wide-spread fame of Iona will permit an additional account of its relics in this place. In any other situation, and under almost any other circumstances, the architectural ruins of Iona would be consigned to neglect and oblivion. It is not from their magnificence or splendor, from their magnitude or proportions, that they have acquired celebrity, but from their connexion with a barbarous age, and their standing a solitary monument of religion and literature amidst the gloom of ignorance. It is almost impossible for the mind to contemplate the fragments of these venerable structures, now fast mouldering beneath the hand of time, without involuntarily recurring to the period when this little isle was the 'light of the western world.' 'Even at a distance,' says Dr. Maccullock, in his Description of the Western Islands, 'the aspect of the cathedral, insignificant as its dimensions are, produces a strong feeling of delight in him who, long coasting the rugged and barren rocks of Mull, or buffeted by turbulent waves, beholds its tower first rising out of the deep; giving to this desolate region an air of civilisation, and recalling the consciousness of that human society, which, presenting elsewhere no visible traces, seems to have abandoned these rocky shores to the cormorant and the sea-gull.'

The following perspicuous delineation of these remains of antiquity is extracted from Dr. Playfair's Statistical Description of Scotland. 'From the beginning of the seventh century to the reformation, Iona was the seat of the regular clergy of St. Columba. After that period, the learning of ages, the records of nations, and the archives of remote antiquity, were destroyed or removed to Douay College, in France. Some fragments of buildings remain. St. Mary's church, which served as a cathedral of the diocese of the bishops of the Isles, and is almost entire, was built of red granite, 115 feet long, and twenty-three broad, with a transept of seventy feet. Over the centre is a handsome tower. From the south-east corner are two parallel walls, ten feet distant from each other, which reach to the sea. West of the church is a cross of one stone nearly eight feet high, and twenty inches broad, and six thick. From this place to the nunnery there is a causeway 300 yards in length, and fifteen in breadth, intersected at right angles by another of the same kind, that reaches from the shore to the village. On the left hand of it, as you go from the shore to the church, there is a cross of whinstone, ten feet high, ornamented, but without any inscription. The nunnery is a plain square building; and its church, which contains the tombs of ladies of high rank, is fifty-eight feet long, and twenty broad. St. Oran's chapel, which is sixty by twenty-two feet, is surrounded by the burying-ground, where, according to tradition, forty-eight Scots, four Irish, and eight Norwegian chiefs are interred. In 1540 there were three tombs, like little chapels, with an inscription on a broad stone in the gable

of each; but scarcely a vestige of these tombs now exists. North of the monastery are the remains of a small edifice, called the bishop's house. Such is the present state of that illustrious island, 'which was once the seminary of the Caledonian regions, whence savage clans and roving barbarians derived the benefits of knowledge and the blessings of religion.'

At Sandwich, in Ross-shire, is a curious obelisk, but of a more recent date than those above-mentioned. It stands on a basement of flat stones rising like steps, and is enriched with various specimens of carved works more highly finished than those on the obelisk near Fortrose. On one face is a large cross with a figure of St. Andrew on each side, and some uncouth forms of animals beneath. The reverse contains figures of birds and animals. The ruins of Elgin Cathedral present some dignified remains. The west door is highly ornamented, and the whole edifice displays much elaborate workmanship. Among the ancient castles of North Britain that of Kildrummy is most distinguished, and was formerly a place of great strength and magnificence, frequently the asylum of noble families in times of civil war and national distress. The castle of Inverugie is a massy pile, standing on the steep bank of a river, rearing its lofty towers above the aged trees, and appearing majestic even in ruins. At Huntley, also, the remains of a venerable castle attest its former magnificence.

In *natural curiosities* Scotland is very rich. The picturesque falls of the Clyde, near Lanark, and the beauties of Loch Lomond, have excited much attention, and given rise to many animated descriptions. The rocks on the coast of Aberdeenshire frequently assume singular forms of arches and pillars; while the vast basaltic columns between the castle and harbour of Dunbar resemble the Giant's Causeway in Ireland. Several large caverns in Fifeshire, a petrifying cave at Slains, in Aberdeenshire, and a quantity of sea-shells and white stones, some of them very clear, are to be met with on the top of a mountain in Ross-shire, about twenty miles from the sea. Nor are traces of extinguished volcanoes totally unknown in this country. The hill of Finchaven is one instance, and that of Bergonium, near Dunstaffage Castle is another. Both of these exhibit large quantities of pumice stone, or scoriae, of the same kind as those thrown out by the volcanoes of Iceland. On the isle of Scalpay, one of the Hebrides, there is a hill which affects the mariner's compass, and causes the needle to deviate 9° from the north towards the west. At Ralptrisk is the famous ringing stone, about seven feet long, six broad, and four and a half thick. It is of a dull gray color, spotted with black mica. It is very hard, and when struck with a hammer or stone sounds like brass or cast iron.

Between the islands of Jura and Scarba is the noted whirlpool, denominated Cor-y-bhrechan supposed to have derived its name from a Danish prince who perished there. 'Soon after the flood tide has entered the sound the sea at this place is violently agitated. It boils, foams, and passes away in successive whirls. The commotion increases till near the fourth hour of

flood, when it is most impetuous. The waves are tossed with a great noise, that may be heard twelve miles distant. But from the middle of the fifth to the sixth hour of flood, and in neap-tides from the fourth to the sixth hour, the commotion gradually abates, until at length it totally subsides; and, at the approach of the lowest ebb, the same tranquillity is restored as takes place at high water.'

But perhaps the most remarkable natural curiosity in Scotland is the precipitous and columnar island of Staffa. The bending pillars and the noted caves of this small island have often been described. The island itself is an irregular oval, faced with nearly perpendicular rocks, in which various caves yawn and receive the restless waves that dash against the shore. The height of these rocky coasts varies from about 112 feet to less than ten above the surface of the sea. The natural pillars in many of these places are inclined in various positions from the perpendicular. In some they are bent so as to resemble the inside timbers of a ship. In others, where the ends present themselves in forming the surface, they have the appearance of a honey-comb. The celebrity of this island, however, is chiefly derived from its various caves. The principal of these are the Boat Cave, Mackinnon's Cave, and Fingal's Cave. The Boat Cave apparently derives its name from its being accessible by sea only. This cave is small, but its entrance is highly picturesque from the symmetry of the columnar surface of the cliff in which it is situated. Its height is about fifteen feet, breadth twelve, and depth 150 feet. It can be entered by means of boats only, as the tide never ebbs quite out.

Mackinnon's Cave presents an aperture of nearly fifty feet square, with a depth of more than 220 feet, which causes it to reflect a deep shadow, that produces a powerful effect. Its dimensions are nearly the same throughout its extent. The roof and sides, being smooth, are deprived of many of those beauties which a more varied appearance, accompanied with a symmetrical arrangement of parts, would present. Fingal's Cave is the most celebrated, and upon it the utmost powers of description have frequently been lavished. It is situated near the eastern ex-

tremity of the principal face, and presents two nearly perpendicular sides; with a roof resembling that kind of Gothic arch which is termed the contracted. The height from the surface of the water at mean tide is about sixty-six feet; and from the top of the arch to the summit of the cliff it is thirty feet: the breadth is about forty-two feet. The height of the cave soon diminishes to less than fifty feet, and terminates at forty-four, after running into the rock a depth of 227 feet. These are the dimensions given by Dr. Macculloch, who lately measured it; but those given by Sir Joseph Banks, by whom it was first visited, in his voyage to Ireland, are considerably greater. The sides of the cave, like the rock in front, are columnar and nearly perpendicular, and the roof is formed of pillars that have been broken off, which sometimes produce an ornamental effect. The breadth is preserved nearly to the furthest extremity, and the whole cave is lighted from without, so that the end may be distinctly seen. The air is kept in a pure state from the motion occasioned by the flux and reflux of the tide; and, as this never ebbs out, it forms the only flooring to the cave. 'It would be no less presumptuous than useless,' Dr. Macculloch observes, 'to attempt a description of the picturesque effects of that to which the pencil itself is inadequate. But if this cave were even destitute of that order and symmetry, that richness arising from multiplicity of parts, combined with greatness of dimension and simplicity of style which it possesses, still the prolonged length, the twilight gloom, half concealing the playful and varying effects of reflected light, the echo of the measured surge as it rises and falls, the transparent green of the water, and the profound and fairy solitude of the whole scene, could not fail strongly to impress the mind gifted with any sense of beauty in art or nature.'

It is said that by far the greater part of exported British linens are of Scottish manufacture: some estimate of the importance of that manufacture may be formed by the following table of the countries to which these exports were made in 1821 and 1822, ordered to be printed by the House of Commons May 1823:—

	1821.			1822.		
	£	s.	d.	£	s.	d.
Portugal, the Azores, and Madeira	53,597	1	8	40,627	9	5
Spain and the Canaries	24,624	15	7	78,812	7	0
Gibraltar	159,849	12	10	162,685	2	7
Asia	22,454	12	0	29,026	4	2
Africa	15,454	14	0	6,268	8	0
British North America	48,639	10	5	75,324	19	4
— West Indies.	552,391	18	3	542,947	4	9
Foreign West Indies	193,911	8	10	161,164	19	10
United States	442,204	18	7	516,781	3	1
Brasil	116,247	11	1	179,387	15	5
Foreign colonies on Continent of North America	53,982	11	5	115,206	0	6
All other parts	18,351	3	8	24,920	8	4
	1,701,709	18	4	1,933,152	2	5

The quantity of malt made in Scotland from 1786 to 1800 fluctuated from 1,500,000 to 2,000,000 of bushels annually; the ordinary rate of duty being then 7½*d.* per bushel. In 1804, when the duty on malt made from barley was raised to 3*s.* 8½*d.*, and from bear or bigg to 3*s.* 0½*d.*, the number of bushels fell to 1,125,482, and never reached 1,500,000 while these duties were gathered. In 1817, 1818, and 1819, when the duty was 1*s.* 8½*d.*, the quantity increased from 1,129,992½ to 1,556,586 bushels. But in 1820, when it was raised to 3*s.* 6*d.*, the number of bushels fell to 1,284,918¾. In 1822, under new modifications of the duty, it was 1,347,432

bushels; and for the year ending 5th April 1823 the number had increased to 2,150,795 bushels; of which 1,816,691½ were made from barley, and 334,103½ from bear or bigg. The beer made in Scotland in 1822 was about 350,000 barrels, or about 3000 barrels less than in 1792. Such is the effect of high war duties on the necessaries of life.

The spirits made in Scotland for home consumption only, from 1813 to 1822, and all from grain or malt (no sugar or molasses being used in those years), appears, from the Report of the Malt Duties of Scotland, May 1821, to stand thus:—

Years.	Gallons of Spirits made and charged with duty.	Rate of duty per gallon.	Total Revenue produced.
			£ s. d.
From 10th Dec. 1813 } to 1st Oct. 1814 }	1,653,735	{ 7 <i>s.</i> 1½ <i>d.</i> in Lowlands, } { 5 <i>s.</i> 11½ <i>d.</i> in Highlands }	587,781 8 1½
1st Oct. 1814 } to 9th Nov. }	1,784,943½	8 <i>s.</i> 4¾ <i>d.</i>	743,506 0 3
Year ending } 10th Nov. }	1,030,772¾	8 <i>s.</i> 4¾ <i>d.</i>	427,658 16 8½
1817 . . .	2,139,207½	5 <i>s.</i> 6½ <i>d.</i>	599,168 3 5½
1818 . . .	2,367,914½	5 <i>s.</i> 6½ <i>d.</i>	663,464 16 4
1819 . . .	2,366,998	5 <i>s.</i> 6¾ <i>d.</i>	658,773 18 4¾
1820 . . .	2,167,558	7 <i>s.</i> 6¾ <i>d.</i>	602,676 18 6½

The following is an account presented to the House of Commons, in May 1823, of the excisable articles paying duty in the years ending 5th July 1792 and 1822 respectively, and the amount of duty on each:—

Articles.	1792.			1822.		
	£	s.	d.	£	s.	d.
Auctions . . .	4,700	8	8¾	13,645	12	6¾
Beer and ale . . .	55,078	8	2	87,217	9	9¾
Bricks and tiles . . .	3,283	13	3½	6,348	16	4½
Candles . . .	16,804	7	10½	19,704	2	3½
Coaches . . .	99	0	0	.	.	.
Cocoa nuts and coffee	443	17	11¾	16,785	3	6
Cyder and perry . . .	.	.	.	28	8	1½
Glass . . .	24,719	9	1½	132,770	13	7
Hides and skins . . .	19,618	13	7½	51,045	6	7
Licences . . .	10,813	3	2	90,581	8	5
Malt . . .	74,960	12	0½	199,695	3	9
Paper . . .	5,744	18	2	63,688	19	3
Pepper . . .	.	.	.	305	7	6
Printed goods . . .	78,002	0	4	246,278	7	5½
Salt . . .	.	.	.	106,992	16	8
Soap . . .	43,969	8	4½	122,306	6	8½
Starch . . .	9,749	17	3½	5,325	12	3
Spirits (foreign) . . .	56,520	8	1½	124,112	10	1
— (British) . . .	52,470	5	2	740,709	14	5¾
Stone bottles . . .	.	.	.	9	4	11½
Sweets . . .	.	.	.	111	1	4
Tea . . .	.	.	.	49	4	2
Tobacco and snuff . . .	31,774	8	5½	301,428	2	7¾
Vinegar . . .	.	.	.	753	17	0
Wine . . .	0,990	9	6½	68,716	2	0¾
Totals . . .	519,743	9	4½	2,398,609	11	5½

The established religion of Scotland is Presbyterianism, on the Geneva model, finally settled by an act of the Scottish parliament in 1696, and afterwards secured by the treaty of union with

England. As considerable light has been thrown of late by Dr. Cook and Dr. M'Crie on the early progress of the Reformation in Scotland, we shall avail ourselves here of a portion of this information.

In preparing the scheme of future church polity for his country, her great reformer, Knox, adopted the general maxims of Calvin; yet he accommodated them considerably to the peculiar situation of Scotland. While he abolished the episcopal order as by divine right superior to that of presbyters, finding that absolute equality amongst the pastors would not be expedient, he appointed superintendants, who were in some respects similar to bishops, but in others plainly and explicitly distinguished from them. They superintended the parochial ministers, whose labors were confined to their own parishes, and the readers who, from the small number of pastors, were employed to read and explain the Scriptures, where ministers could not be procured. This intermediate system between episcopacy and presbytery, although it was regarded with much partiality by Knox, did not long continue. It had little hold of the minds of the people; and the poverty of the clergy under it rendered them eager that it might be so modified as that their temporal condition should be improved. When, therefore, in 1572, the earl of Mar, who was then regent, was eager, perhaps more from political than religious considerations, to restore the order of bishops, little resistance was made to his wishes; and, with the acquiescence even of Knox, an episcopalian polity supplanted the superintendent scheme, or rather was combined with it. But it soon appeared that the prejudices which had been early formed against the hierarchy had not subsided; and the celebrated Andrew Melville, on his arrival in Scotland from Geneva in 1574, taking advantage of these prejudices, and of every political event that might facilitate his design, was enabled to effect, in 1592, the introduction of that presbyterian polity which he found established in Geneva, and which has finally been fixed in Scotland.

To James VI., although he was occasionally forced to dissemble his real sentiments, this form of church government was most obnoxious. The boldness with which the ministers defended what they believed to be right ill corresponded with the deference which he considered to be due to royalty; and, having been often thwarted by them in what they deemed the unconstitutional exercise of his prerogative, he was desirous that episcopacy, as more consonant to monarchy, should be restored. To effect this he made many efforts, even before his accession to the English throne; and after that event he was enabled to accomplish his object; at the same time gratifying the feelings or the prejudices of his Scottish subjects, by putting restraints upon the bishops, without which he dreaded that he would fail in establishing their authority. His unfortunate son, Charles I., who was attached to episcopacy from sincere religious conviction, as well as from views of political expediency, formed the scheme of assimilating in all respects the churches in England and Scotland. With this view he determined to intro-

duce a liturgy, which in Scotland had never been regularly used; and he insisted upon the reception of a set of canons abolishing the control over ecclesiastical measures which the inferior church judicatories had been permitted to exercise. The violence with which all this was resisted is known to every reader of the history of Scotland. The zeal of the multitude was inflamed to fury: the clergy were insulted, and episcopacy was again contemplated as the engine of popery and of despotism. The dissensions which soon arose in England cherished this state of mind: the discontented in Scotland made a common cause with the disaffected in the southern part of the island: they bound themselves, by the strange deed which they entitled 'the solemn league and covenant,' to exterminate prelacy as a corruption of the Gospel; and they took an active part in those commotions which terminated in the death of Charles, and the erection of the Commonwealth. Some feeble efforts indeed were made to preserve to Charles II. a shackled sceptre; but he was soon compelled to leave Britain; and under Cromwell the violent presbyterians, who were denominated Protesters, enjoyed the free exercise of the form of worship, and of the power which they had acquired. Upon the restoration of Charles, to which it must be admitted that many attached to presbytery zealously contributed, although at his coronation at Scone he had solemnly sworn to defend that mode of ecclesiastical government, and had, in the prospect of being restored, renewed his protestations that he would do so, he established episcopacy in Scotland, under circumstances little calculated to conciliate the affections and to secure the reverence of the people to that ancient and admirable form of church polity. The desertion of Dr. Sharp from the presbyterians was rewarded by his exaltation to the primacy; and powers were vested in the bishops much more ample than they had possessed at any time before. The discontent that now prevailed among the presbyterians was openly displayed, and the attempts to restrain it were conducted with a severity more calculated to divide than to heal. The presbyterians, undismayed, adhered to their principles; and, upon the abdication of James II., they looked forward with confidence to the triumph of their cause. And, though the prince of Orange was eager to preserve in both parts of the island the same form of ecclesiastical government, the bishops conceived that they could not conscientiously transfer their allegiance to him, whereby the way was opened for that establishment of presbytery which some of his most zealous adherents had pressed upon him, and which was ratified by act of parliament in 1690. Thus, Scotland and England having been separate kingdoms at the time of the Reformation, a difference of circumstances in the two countries led to different sentiments on the subject of religion, and at last to different religious establishments; and when they were incorporated into one kingdom, by the treaty of union in 1707, the same regard to the inclinations of the commonalty of Scotland, to which presbytery owed its first establishment in that country, produced a declaration, to which both kingdoms gave their

assent, that 'Episcopacy shall continue in England, and that the presbyterian church government shall be the only government of Christ's church in that part of Great Britain called Scotland.'

It is also guaranteed, by the fifth article of the union with Ireland, not only 'that the churches of England and Ireland as now established, be united into one Protestant Episcopal church, to be called the united church of England and Ireland;' but also that 'in like manner the doctrine, worship, discipline, and government of the church of Scotland shall remain and be preserved, as the same are now established by law and by the acts for the union of the two kingdoms of England and Scotland.'

The *distinguishing tenets* of the church of this important part of the United Kingdom seem to have been first embodied in the formula of faith attributed to Knox, and compiled by that reformer in 1560. Amidst all the outward changes of polity already detailed this has been preserved unchanged. It was approved by the parliament, and again ratified in 1567, and consists of twenty-five articles, and was the confession as well of the episcopal as of the presbyterian church. The Covenanters indeed, during the grand rebellion, adopted the Westminster Confession, in the compilation of which some delegates from their general assembly had assisted. And, at the Revolution, this confession was received as the standard of the national faith; and the same acts of parliament which settled presbyterian church government in Scotland, ordain, 'That no person be admitted or continued hereafter to be a minister or preacher within this church, unless that he subscribe the (i. e. this) confession of faith, declaring the same to be the confession of his faith.' By the act of union, in 1707, the same is required of all professors, principals, regents, masters, and others bearing office in any of the four universities in Scotland.

The Westminster Confession of Faith, then, and what are called the Larger and Shorter Catechisms, which are generally bound up with it, contain the public and avowed doctrines of this church; and it is well known that these formularies are Calvinistical, if not Supralapsarian. 'The character of these formularies is, in general,' says a highly respectable Calvinistic writer, 'too exclusive, severe, and systematic for certain deliberative minds. Called to the reception of them, they are staggered by the extent of the requisition. For a time, perhaps, they hesitate to obey the voice of conscience, and to desert the national standard. But the resolution, once taken, and the reputation for orthodoxy and conformity sacrificed, they give loose to their fancy or ingenuity, and at length fashion to themselves a system perfectly at variance with truth and reason. It appears to us that Scotland, in this respect, furnishes an important lesson to the more dogmatic and exclusive theologians of this country, &c.'—*Christian Observer*, for 1815, p. 685, 686.

It has indeed been often insinuated, or asserted, that many of the ministers, as well as lay members, of the establishment, have departed widely from that confession, holding the Arian or Socinian views of our Lord's person, and the

Arminian opinions as to predestination and grace. Such a charge, however, should be received with much caution, and is perhaps entitled to little or no attention. No party in the church avows enmity to the Westminster Confession; and there can be no doubt that the great majority of the clergy are attached to the doctrines which it inculcates. There is a wide difference in the way of preaching these doctrines; but this is not confined to any one party. Amongst those who are denominated the popular clergy, there are many practical preachers; whilst those who are styled moderate, not unfrequently inculcate the highest tenets of Calvinism.

In this church the *public worship* is extremely simple, and but few ceremonies are retained. John Knox, like his master Calvin, seems to have been less an enemy to liturgies and established forms, than their more modern followers; for, though he laid aside the Book of Common Prayer about the year 1662, he then introduced one of his own composition, which more strongly resembled the liturgy of the church of Geneva. There is now, however, no liturgy or public form in use in this church; and the minister's only guide is the Directory for the Public Worship of God, which prescribes rather the matter than the words of our addresses to God: nor is it thought necessary to adhere strictly to it; for, as in several other respects, what it enjoins with regard to reading the holy Scriptures in public worship is, at this day, but seldom practised. By the ecclesiastical laws, the sacrament of the Lord's supper should be dispensed in every parish four times in the year; but this law is now seldom adhered to, unless in most chapels of ease. In country parishes it is often administered not above once a year, and in towns generally only twice a year. The people are prepared for that holy ordinance by a fast and public worship on some day of the preceding week, generally on Thursday, and by a sermon on the Saturday; and they meet again in the kirk on the Monday morning for public thanksgiving.

They have no altars or chancels in the kirks, and the communion tables are not fixed, but introduced for the occasion; and are sometimes two or more in number, and of considerable length. At the first table, the minister, immediately upon concluding what they call the consecration prayer, usually proceeds to read the words of the institution, and, without adding more, to distribute the elements, which he does only to the two communicants who sit nearest him on each hand. It is usual for the elders to administer them to the rest. But before, or during, the services of the succeeding tables, addresses of some length are made to the communicants by the minister, or by one of the ministers (for there are generally two, three, or more present), standing at the head of the communion table.

In conducting public worship, the creed, the ten commandments, and the doxology are not introduced as essential parts of the service; and there is no observation in this church of festivals. Days of public fasting and thanksgiving she does indeed sometimes observe, particularly

those commanded by his majesty, together with the fast previous to the celebration of the holy communion, and the day of thanksgiving after it. But she has no Lent fast—no kneeling at public prayer—no public worship of God, without a sermon, or public instruction—no instrumental music—no consecration of churches or of burying grounds—no funeral service or ceremony—no sign of the cross in baptism—no regular use of the Lord's Prayer—and no administration of the holy communion in private houses.

With regard to confirmation, her members reject it; but they do not condemn it. On the contrary, 'we endeavour,' says Dr. Hill, 'to supply the want of it in a manner which appears to us to answer the same purpose. We account ourselves bound to exercise a continued inspection over the Christian education of those who have been baptised, that, as far as our authority and exertions can be of any avail, parents may not neglect to fulfil their vow; and when young persons partake, for the first time, of the Lord's Supper, we are careful, by private conference and public instruction, to impress upon their minds such a sense of the nature of that action, that they may consider themselves as then making that declaration of faith, and entering into those engagements, which would have accompanied their baptism had it been delayed till riper years.'

By the First Book of Discipline, which was compiled by Knox and his associates, and ratified by an act of council in 1560, the apostolical rite of ordination by the imposition of hands was laid aside as superstitious; but it was restored in the second book of Discipline, in 1578, and is now practised as formerly in the kirk of Scotland, where, as in other presbyterian churches, ordination is vested in the presbytery; and every minister is ordained to his charge in the face of his congregation.

The metre of the version of the Psalms used in this church must be allowed to be very inferior; but, besides the Psalms of David, a collection of translations and paraphrases in verse, of several passages of sacred Scripture, together with some hymns, has been introduced into this church of late years, by permission of the general assembly; and a new version of the Psalms in metre is now in progress.

The church government and discipline are amongst the most important features of the Scottish church. At the Revolution, the famous statute of 1592 was taken as the model: the different courts specified in it were restored: viz. sessions, presbyteries, provincial synods, and general assemblies. Regard was also had to the form of church government agreed upon in the assembly of Westminster divines, and ratified afterwards by an act of the general assembly, in the year 1645; and, of the societies at present formed upon the presbyterian model, it may safely be affirmed that the church of Scotland is by much the most respectable. A short view of her constitution may not therefore be unacceptable to the reader; and hers may be considered as the fairest specimen, now existing, of presbyterian church government in general. In this church, every regulation of public worship, every act of dis-

cipline, and every ecclesiastical censure, which in episcopal churches flows from the authority of a diocesan bishop, or from a convocation of the clergy, is the joint work of a certain number of ministers and laymen acting together with equal authority, and deciding every question by a plurality of voices.

The laymen, who thus form an essential part of the ecclesiastical courts of Scotland, are called elders, and ruling elders; but, though they have the same name, it does not appear that they hold the same office with the elders mentioned by St. Paul in 1 Tim. v. &c.; for these last labored in the word and doctrine.

The number of elders is proportioned to the extent and population of the parish; and few parishes, except where the unpopularity of the minister has induced most of the people to secede, have fewer than two or three. In Edinburgh every parish has, at least, twelve elders. The Canongate parish has betwixt twenty and thirty; and the West Kirk, or St. Cuthbert's, which is one of the most populous parishes in Scotland (containing within its bounds upwards of 40,000 souls), has above fifty. These elders are grave and sober persons, chosen from among the heads of families of known orthodoxy and steady adherence to the worship, discipline, and government of the kirk. Being solemnly engaged to use their utmost endeavours for the suppression of vice, and the cherishing of piety and virtue, and to exercise discipline faithfully and diligently, the minister, in the presence of the congregation, sets them apart to their office by solemn prayer, and concludes the ceremony, which is called ordination, with exhorting both elders and people to their respective duties.

This office, in many respects, resembles that of the churchwardens in the church of England; but the lay elders seem to possess more spiritual jurisdiction than the churchwardens in their respective parishes.

The kirk session, which is the lowest ecclesiastical judicatory, or court, and which the Westminster Assembly in 1645 asserted to be of divine right, consists of the minister and those elders of the congregation. The minister is, ex officio, moderator, but has no negative voice over the decision of the session; nor indeed has he a right to vote at all, unless when the voices of the elders are equal and opposite. He may, indeed, enter his protest against their sentence, if he think it improper, and appeal to the judgment of the presbytery; but this privilege belongs equally to every elder, as well as to every person who may believe himself aggrieved by the proceedings of the session. Nor can the minister, though he may examine, admit any person to the privilege of membership, till the whole of his session, as well as himself, are satisfied both as to the candidate's knowledge and piety.

The next judicatory is the Presbytery, which answers to the consistories in the Protestant churches on the continent, and is also maintained by some to be *jure divino*. It consists of all the pastors within a certain district, and one ruling elder from each parish, commissioned by his brethren to represent, in conjunction with the minister, the session of that parish. It treats of

such matters as concern the particular churches within its bounds—as the examination, admission, ordination, and censuring of ministers: the licensing of probationers; rebuking of gross or contumacious sinners; the directing the sentence of excommunication; the deciding upon references and appeals from kirk sessions; resolving cases of conscience: explaining difficulties in doctrine or discipline; and censuring, according to their views of the word of God, any heresy or erroneous doctrine, which hath either been publicly or privately maintained within the bounds of its jurisdiction. But that part of the constitution of this church, which gives an equal vote, in questions of heresy, to an illiterate mechanic and his learned pastor, has not been universally approved, but has been considered by some as having been the source of much trouble to many a pious clergyman, who, from the laudable desire of explaining the Scriptures, and declaring to his flock all the counsel of God, has employed a variety of expressions, of the same import, to illustrate those articles of faith which may be obscurely expressed in the established standards. The fact, however, is, that in presbyteries the only prerogatives which the pastors have over the ruling elders are the power of ordination by imposition of hands, which is lodged in this ecclesiastical court, and the privilege of having the moderator chosen from their body.

The number of presbyteries in Scotland is seventy-eight; and those of Edinburgh, Glasgow, Perth, and two or three more, meet every month; but in country districts they seldom meet above four or five times a year, unless when some business occurs which requires them to meet oftener.

From the judgment of the presbytery there lies an appeal to the provincial synod, which ordinarily meets twice in the year, is opened with a sermon, and exercises over the presbyteries within the province a jurisdiction similar to that which is vested in each presbytery over the several kirk sessions within its bounds. Of these synods, there are in the church of Scotland sixteen, including that of Shetland, which are composed of the members of the several presbyteries within the respective provinces which give names to the synods.

The highest ecclesiastical court, and the fountain of jurisdiction in this church, is the general assembly, which consists of a certain number of ministers and ruling elders, delegated from each presbytery, and of commissioners from the royal boroughs. By act 5th of the assembly 1694, a presbytery, in which there are fewer than twelve parishes, sends to the general assembly two ministers and one ruling elder; if it contain between twelve and eighteen ministers, it sends three of these and one ruling elder; if it contain between eighteen and twenty-four ministers, it sends four ministers, and two ruling elders; and of twenty-four ministers, when it contains so many, it sends five, with two ruling elders. Every royal borough sends one ruling elder (and Edinburgh two), whose election must be attested by the kirk sessions of their respective borough; and every university sends one commissioner from its own body.

According to this proportion of representation, the general assembly, in the present state of the church, consists of the following members, viz.—

Ministers representing presbyteries . . .	200
Elders representing presbyteries . . .	89
Elders representing royal boroughs . . .	67
Ministers or elders representing universities	5

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The representatives are chosen annually about six weeks before the meeting of the assembly (which always takes place in May) and in Edinburgh; and the ruling elders are seldom the lay elders of the different parishes, but often gentlemen of the law in Edinburgh, and men of eminence in the kingdom for rank and talents. Yet many of them, it is well known, are not so deeply impressed with a sense of religion, as to be interested in the proceedings of an ecclesiastical court where temporalities are not concerned, and much less to be duly qualified for deliberating and deciding on religious subjects. This assembly is honored with a representative of the sovereign, in the person of the lord high commissioner, who is always a nobleman, and presides, and has a salary of £1500 per annum; but he has no voice in their deliberations.

The order of their proceedings is regular, and in general much decorum is observed; but sometimes opposition runs high between the two parties in the church, who often take this opportunity of trying their strength; and a confusion arises from the number of members, the collision of ministers and laymen, &c.; which the moderator, who is annually chosen from among the former, to be, as it were, the speaker of the house, has not sufficient authority to prevent. The assembly continues to sit for ten days; at the end of which time it is dissolved, first by the moderator, who appoints another assembly to be held upon a certain day of the month of May in the following year; and then by the lord high commissioner, who, in his majesty's name, appoints another assembly to be held upon the day which had just been mentioned by the moderator.

Appeals are brought from all the other ecclesiastical courts in Scotland to the general assembly; and, in questions purely religious, no appeal lies from its determinations. At the close of each general assembly, a commission of assembly is appointed; but to the laws already made no new one can be added, till it has been proposed in one general assembly, and by them transmitted to every presbytery for their consent. If this, or at least the consent of the majority, is obtained, the assembly next year may pass it into an act, which henceforth must be regarded as a constitutional law of the kirk. In the subordination of these assemblies and courts of review, parochial, presbyterial, provincial, and national, the less unto the greater, consists the external order, strength, and stedfastness of the church of Scotland.

The discipline of this church, though now somewhat relaxed, was never so rigorous as that of Geneva, the church on whose model it was formed. In that temporal exercise of discipline

which the general practice of the church of Scotland recognises as congenial to her constitution, 'care is taken,' says Dr. Hill, 'to avoid every appearance of intermeddling officiously with those matters that fall under the cognisance of the civil magistrate. No solicitude is ever discovered to engage in the investigation of secret wickedness: counsel, private admonition, and reproof are employed in their proper season; and the public censures of the church are reserved for those scandalous sins which bring reproach upon religion, which give offence to the Christian society, and which cannot be overlooked without the danger of hardening the sinner, of emboldening others to follow his example, and of disturbing and grieving the minds of many worthy Christians.'

It was formerly the general practice to oblige adulterers and fornicators to present themselves in the kirk, for three different Sundays, on a bench, known by the name of the stool of repentance, when they were publicly rebuked by their minister, in the face of the congregation; but this punishment is now often changed into a pecuniary fine. For this change, however, there seems to be no law; and the old practice of publicly rebuking such transgressors, though very much disliked and cried down by the gentry and others, as an occasion of child murder, &c., is still continued in a great majority of the parishes. In Edinburgh it is entirely discontinued, because believed to be impracticable; but in Glasgow, Paisley, Stirling, and other towns, the old discipline is maintained.

By the discipline of the church, a parent who is under public scandal is disqualified from presenting his child for baptism, till such time as his character is cleared up, or he has satisfied the kirk; but as it sometimes happens that this does not soon take place, and in the mean time the child is refused the benefit of baptism, this practice is disapproved of by many, as having the appearance of punishing the children for the iniquity of the parents. '*Anima quæ peccaverit, ista morietur.*'

In Scotland, and the islands of Scotland, the kirk contains within her bounds 893 parishes, and about 1,500,000 members. The number of ministers belonging to her, who enjoy benefices, and possess ecclesiastical authority, is 940. Of this number, seventy-seven are placed in collegiate charges, mostly in the proportion of two ministers for each of these charges; and the remaining 863 ministers are settled in single charges, each of them having the superintendance of a whole parish. In very populous parishes, chapels of ease are erected with consent of the kirk, and are supported by voluntary subscriptions; but the ministers who officiate in them are not included in this number, as they are not members of any ecclesiastical courts.

The duties of the Scotch clergy are numerous and laborious. They officiate regularly in the public worship of God; and, in general, they must go through this duty twice every Sunday (exclusive of other occasional appearances), delivering every Sunday a lecture and a sermon, with prayers. It is also expected, throughout Scotland, that the prayers and discourses shall be

of the minister's own composition; and the prayers in all cases, and the discourses in most instances, are delivered without the use of papers. They are expected to perform the alternate duties of examining their people from the Scriptures, and catechisms of the church, and of visiting them from house to house, with prayers and exhortations. This is done commonly once in the year, being omitted only in those cases wherein the ministers deem it impracticable, or not acceptable, or at least not necessary. The charge of the poor devolves, in a very particular manner, on the clergy; and in them also is vested the superintendance of all schools within their bounds.

The provision which has been made, by the law of Scotland, for the support of the established clergy, consists in a stipend, payable in victual or money, or partly in each; a small glebe of land; and a manse (parsonage-house) and office-houses. In cities and towns the stipends are generally paid in money; in 'landward' (i. e. country) parishes, they are, for the most part, liquidated in money and victual. They are derived from a charge on the rents of land, paid by the landlord, throughout Scotland, upon principles fixed so far back as the reigns of Charles I. and II., confirmed by king William, and now made permanent by the treaty of Union. So long as there are any free tithes (i. e. tithes) in a parish, belonging to the minister, he can bring a process for augmenting his stipend, at the end of every twenty years, before the court of session, whose members sit as commissioners for the plantation of kirks and valuation of tithes. In this process all the heritors of land in the parish are called as parties; and if the minister can prove that, from change of circumstances, his stipend should be augmented, the judges grant his request; but, if they see no cause for entertaining his reasons, they refuse his application.

An act of parliament passed in 1810, granting £10,000 per annum for augmenting the smaller parish stipends in Scotland. By this act, the lowest stipend assigned to a minister of the establishment is £150 sterling, with a small sum, generally £8 6s. 8d., for communion elements. Stipends, where the tithes are not exhausted, are, with the exclusion of communion elements, wholly paid in victual, generally oatmeal and barley, in equal proportions; and the court frequently allocates, as it is termed, to a minister, from sixteen to eighteen chalders. If the stipend exhaust the teind, it is sometimes paid in money; and there are cases in which the teind was originally set apart in money, and not in victual.

The glebe consists legally of at least four acres of arable land, and, in fact, generally exceeds that measure. Most of the ministers of country parishes enjoy glebes; but those of royal boroughs in general, as well as those of cities and towns, have no glebes. Besides the glebe, the minister of a landward parish is entitled to as much of grass-lands as may support a horse and two cows; 'yet perhaps one half of the clergy have no grass, nor any allowance for it.'

The whole church establishment, as a burden on land, may be stated in one view, as follows--

viz. a glebe, of perhaps about six or seven acres, out of nearly 21,000, and the grass, where it is allowed; a stipend of about 9*d.* in the pound of the land rents; and buildings and communion charges, amounting to 4*d.* or 5*d.* more in the pound, of these land rents. All these put together constitute the burdens of the Scottish ecclesiastical establishment, in so far as proprietors of land are affected by them; and are not supposed to exceed £300,000 per annum. Thus the clergy are removed from the extremes of wealth and poverty. Their revenues, though sufficient, are not ample enough to tempt the cupidity of the higher classes; and the livings are therefore engrossed by persons sprung from the middle and lower classes, who naturally identify themselves with these classes, understand their situations, and participate in all their joys and sorrows. Being all on nearly a footing of equality, they have no unattained object of ambition to distract their attention from the important labors of their professions. They have seldom any prospect of changing their livings, and therefore find it their interest, as well as their duty, to establish their character and respectability by a diligent and faithful discharge of professional duties.

The dissenters from the Scottish kirk are numerous, and embrace, in the metropolis and on the eastern coast, particularly in the county of Aberdeen, a considerable number of episcopalians. They are supposed to amount to upwards of 40,000, having six bishops and seventy clergymen; and are the only body of dissenters that have been distinctly recognized by the parliament of Great Britain. Each bishop, as in Sweden, Denmark, and America, as well as exercising a superintendance over the other clergy, is the pastor of a particular congregation. The history of this body is interesting. At the Revolution the Scottish church, as we have seen, became by act of parliament presbyterian; chiefly from the circumstance of her bishops and clergy holding the extreme doctrines, as they have been called, of non-resistance and passive obedience to the powers that be. That is, they became nonjurors in respect to the government of William and Mary.

Such, say the episcopal writers, being the conduct and consequent circumstances of the governors and clergy of the Scottish episcopal church, they have, on this occasion, exhibited an instance of disinterestedness, of generous attachment to fallen majesty, and of conscientious adherence to principle, than which the history of the world does not furnish one more illustrious. Whether they acted rightly or not is a question that, from the opposite views and discordant principles and passions of mankind, we can scarcely suppose will ever be determined to the satisfaction of all parties. This much, however, is certain, that had those venerable fathers possessed the more pliant principles of many distinguished characters of that turbulent period—had they truckled without scruple to the authorities which then prevailed, or measured their notions of what was just and right by their feelings of what was most conducive to their present and temporal interest—

'Trojaque nunc stares—Priamique arx alta maneres!'

they might have remained in the peaceable possession of their dignities and benefices; for it is well known that the prince of Orange, afterwards king William III., offered to protect them, and preserve their establishment inviolate, provided they would come over to his interests, and support his pretensions to the throne. But this, from a principle of conscience, they unanimsly declined to do; and the consequences were that they and many of their clergy were given up a prey to their enemies, and were exposed to such hardships and indignities as one cannot read of without emotion, or think of without pain.

Some relaxation of the severities with which they were treated under king William was, however, granted them by queen Anne, in 1712, when an act of parliament was passed 'to prevent the disturbing of those of the episcopal communion in Scotland, in the exercise of their religious worship, and in the use of the liturgy of the church of England.' In consequence of this indulgence that liturgy, which the ablest of them had long professed to admire, and which some of them had already introduced into their assemblies, was universally adopted by them; and public chapels, which had till then been prohibited, were every where built, and well frequented. The same principles which had influenced them to withhold their allegiance from king William and queen Anne, would not allow them, as a body, to transfer it to a new family, clogged as it was by so many oaths, especially by that of abjuration. Yet many individuals complied with the government, and gave every test of allegiance which was required of them; but, as if the insurgents of 1715 had been wholly of their communion, new restraints were then laid upon their public worship, and upon theirs only, which no doubt revived in some degree their original prepossessions. These restraints, however, were neither very severe, nor of long continuance; for by the year 1720 their congregations were as numerous as formerly, consisting, especially in the north, of men of all ranks, even such as held offices of trust under the established government.

Yet nothing less than the extinction of this body seems to have been the aim of those whose enmity proposed, and whose influence procured to be enacted, those penal statutes of 1746 and 1748, which were less calculated to eradicate the attachment of this society to the house of Stuart than to produce disaffection to the existing government, where it did not previously exist. They had also an unhappy effect on the religion of the country; for, by driving out of the episcopal church many persons of distinction, whose principles or prejudices would not allow them to communicate with any other society of Christians around them, the consequence was, as foreseen and foretold by bishop Sherlock, that neglect of religion, and of the duties of public worship, which has long furnished matter of serious regret, and which is still too visible even at the present day. Upon the clergy, however, who even then amounted to nearly 200, those rigorous laws were not long rigorously executed.

After a few years, the burning of chapels, and the imprisonment of ministers, were occurrences that seldom happened; but in as far as those laws affected the political privileges of those laymen who frequented their chapels, in that part of their operation they were in no degree relaxed till 1792, when they were wholly repealed, and the Scottish episcopalians tolerated, like other well-affected dissenters from the national establishment.

The act of parliament which at this time passed for their benefit requires them to subscribe the thirty-nine articles of the church of England.

The other dissenters from the kirk are of the same variety in denomination and general character as the dissenters of England, and embrace burghers and antiburghers, now united under the title of the United Secession; Quakers, Bereans, Baptists, and Glassites. There are Catholic churches also in almost all the principal towns; in the northern parts of Scotland this religion has survived the reformation.

In no country is there ampler provision for education than in Scotland: perhaps in no other part of the world is equal attention paid to the subject. To the efficacy of her institutions for this purpose is to be ascribed that general cultivation which is diffused among the mass of the people. An act passed in the reign of William and Mary, ordaining that there shall be a school and a school-master in every parish, his fee not to be under 100 merks, and not to be above 200. These establishments, in which were taught reading, writing, arithmetic, Latin and Greek, placed a superior education within the reach of the poor; every person was instructed in the ordinary branches of education; knowledge was eagerly sought after, and ignorance was accounted disgraceful. This laudable spirit is now so universally spread that a more moral, orderly, or better instructed class of people than the great body of the community in Scotland, is no where found. In consequence of the depreciation of money, the allowances to those parish schoolmasters became gradually insufficient for their decent maintenance; and in 1803 the legislature most wisely augmented the schoolmaster's salary to 300 merks the lowest, and 400 merks the highest, together with a dwelling-house of at least two apartments, a commodious school-house, and a garden containing a quarter of an acre of ground. Besides these parish-schools, there are academies in most of the large towns, where every branch of education is taught. Scotland has also four universities, namely, at Edinburgh, St. Andrew's, Glasgow, and Aberdeen. That of Edinburgh has acquired the most extensive and well merited reputation, for the great attainments of its professors in literature and science; students of medicine in particular have long resorted to it from all parts of the world; and it has often been considered the very first of medical schools. At the time of the union with England, the ancient constitution of Scotland was so far superseded, that in the parliament of the United Kingdom the Scots nobility are represented by sixteen peers. In the house of commons, the freeholders of the coun-

ties, amounting to 2429, are represented by thirty commissioners or knights of the shires. The royal burghs, which are sixty-five in number, exclusive of the city of Edinburgh, which sends one member, are divided into fourteen districts, which return as many members, elected by a delegate from each burgh. Scotland, however, still retains her own ancient laws and institutions; and civil and criminal justice is administered by the college of justice, instituted by James V. in 1532, after the model of the French parliament, to supply an ambulatory committee of parliament, who took on themselves the name of the lords of council and session, which the great members of the college of justice still retain.

The court of session is the highest court in Scotland, and consists of a president, and fourteen ordinary lords. This court may be termed a standing jury, who determine all civil causes according to the statutes, the custom of the nation, and the civil law. No appeal lies from it but to the house of lords. In 1807 the court of session was formed into two divisions, the first, consisting of seven members, under the lord president; the second division, under the lord justice clerk, consisting of six members. In 1815 a jury court was established under a lord chief commissioner, and two other commissioners for the trial of civil cases. The court of justiciary is the highest criminal court in Scotland. It consists of a lord justice general, who has a salary of £2000 per annum; a lord justice clerk, who is president; and five other judges nominated from the senators of the college of justice. The pannel has not the power, as in England, of setting aside a juryman, without assigning a reason. He must be served with a copy of his indictment, and a list of the witnesses who are to appear against him, and another list of forty-five men, out of which his jury is to be chosen, fifteen free days before his trial.

The lords commissioners of justiciary make a circuit twice a year to the different districts of Scotland. All criminal cases before this court are tried by a jury of fifteen persons, whose verdict condemns or acquits by a bare plurality of votes. The court of exchequer has the same powers, privileges, jurisdictions, and authority over the revenue of Scotland, as that of England over the revenue of England. This court consists of a lord chief baron and four other barons, two remembrancers, a clerk of the pipe, &c. All the causes are here tried by jury. In the high court of admiralty there is only one judge, who is the king's lieutenant and justice general upon the seas, and in all ports and harbours. He has a jurisdiction in all maritime causes; and by prescription he has acquired a jurisdiction in mercantile causes not maritime. His decisions are subject to the review of the court of session in civil, and to that of the court of justiciary in criminal, cases.

The college or faculty of advocates answers to the English inns of court; and, subordinate to them, is a body of inferior lawyers or attorneys, styled writers to the signet, because they alone can substantiate the writings that pass the sig-

nect. The commissary court consists of four judges nominated by the crown, and has an original jurisdiction in questions of marriage and divorce, and reviews the decrees of local commissary courts. It sanctions the appointment of executors, and ascertains debts relating to the last illness and funeral charges of persons deceased, or obligations arising from testaments, or actions of scandal, and upon all debts which do not exceed £40. The keeper of the great and privy seals, the lord register, and the lord advocate, are officers of state.

Every county has a chief magistrate called a sheriff, whose jurisdiction extends to certain

criminal cases, and to all civil matters which are not by special law or custom appropriated to other courts. In cases of inferior importance, also, the magistrates of cities and royal burghs have a jurisdiction, which is subject to review of the sheriff. Justice of peace courts were instituted in 1809, which are in almost every respect similar to those in England, though their powers are not so well defined. There is also a small debt court held monthly in every town of any note, where cases not exceeding £5 are decided in a summary manner. See our article *LAW*, part III., for a more particular account of the statute and other laws of Scotland.

SCOTT (Daniel), LL.D., a learned English author and critic, who received the first part of his education at Tewksbury, and finished it at Utrecht, where he was graduated. He wrote several treatises on Theology; and, in 1745, published an Appendix to Henry Stephens's Greek Lexicon, 2 vols. folio.

SCOTT (John), D.D., an eminent English divine, born, in 1638, at Chippenham in Wiltshire. He was educated at Oxford; admitted a commoner in 1657, and made great progress in logic and philosophy. He became minister of St. Thomas's in Southwark. In 1684 he was collated to a prebend in the cathedral of St. Paul's. Dr. Hickeys tells us that after the revolution, 'he first refused the bishopric of Chester, because he would not take the oath of homage; and afterwards another bishopric, the deanery of Worcester, and a prebend of the church at Windsor, because they were all places of deprived men.' In 1691, however, he was made rector of St. Giles's, and canon of Windsor. He published several works:—1. *The Christian Life*, which has been often reprinted; 2. *Examination of Bellarmine's Eighth Note on Sanctity*; 3. *Texts Examined which Papists quote for Prayer in an Unknown Tongue*; 4. *Cases of Conscience*. He died in 1695.

SCOTT (Rev. Thomas), an English clergyman of the established church, was born at Braytoft in Lincolnshire, February 4th, 1746, 1747. His father, a small farmer with a large family, was a man of strong sense, and ambitious of bringing up one of his family to a profession. The eldest son, therefore, was bred a surgeon, but died young; on which Thomas was put to school to learn Latin. At the age of sixteen he was bound apprentice to a medical practitioner at Alford; but at the end of two months he was dismissed, for what cause is not stated by his biographers. He was now employed to keep sheep, but, having a strong desire to enter into orders, he consulted a clergyman at Boston, who encouraged his attempt at qualifying himself for the ministry: and he had acquired a competent knowledge of Greek as well as Latin, when the bishop of Lincoln, Dr. Green, admitted him to orders in 1773. His first situation was a curacy in Buckinghamshire, where he held a correspondence and controversy with Mr. John Newton, which ended in the conversion of Mr. Scott to the Calvinistic sentiments of his friend: and, on

Mr. Newton's removal, Mr. Scott succeeded him in the curacy of Olney: this was in 1781. Four years afterwards he removed to the chaplainship of the Lock Chapel, near Hyde Park Corner, and held besides two lectureships in the city. In 1801 he obtained the living of Aston Sandford, in Buckinghamshire; and here he died, April 16th, 1821, much beloved and respected. Mr. Scott was an able defender of Calvinism, and a good practical expositor of the Scriptures. His Family Bible has gone through several editions. His other works are numerous, and very popular with his party.

SCOTT (Sir Walter), Bart., eldest son of Walter Scott, writer to the signet in Edinburgh, was born in that city, August 15, 1771. His mother, a friend of Burns and Allan Ramsay, was a lady of talent, and author of several small poems of considerable merit. He was educated at the high school of Edinburgh under doctor Adam, and at the university under professor Stewart. According to his own account, he had a distinguished character as a tale-teller, "at a time when the applause of his companions was his recompense for the disgraces and punishments which the future romance writer incurred for being idle himself, and keeping others idle, during hours that should have been employed on their tasks." It was the favorite amusement of his holidays to wander, with a friend of the same taste, through the solitary environs of Arthur's seat and Salisbury crags, reciting and listening to such wild stories as his own and his friend's imagination were able to devise. This truant disposition seems to have been increased by a long illness, the consequence of the rupture of a blood-vessel, at the age of fifteen, during which he was left to the indulgence of his own taste in reading, and, after having devoured all the romances, old plays, and epic poetry furnished by a considerable circulating library, his time was occupied in perusing histories, memoirs, voyages, and travels. Two years spent in this manner, were followed by a residence in the country, in which he made the same use of a good library, to which he had access, that Waverley is represented to have done in a similar situation. Though lame from his birth, and early of feeble health, his strength was afterwards confirmed; and, during the greater part of his life, he has been remarkable for his personal activity, and passionately fond

of field sports. In 1792, having completed his preparatory studies, he was called to the bar; but his literary taste diverted his attention from the practice of his profession, which he soon abandoned for employments more agreeable to his inclination. His patrimonial estate was also considerable, and, in 1800, he obtained the preferment of sheriff of Selkirkshire, of about £300 a year in value. In 1806, he was appointed one of the principal clerks of the session in Scotland. His first literary attempts were translations from the German ballad poetry, which first became known in Great Britain towards the close of the last century. In 1796, he published a volume containing a poetical version of Bürger's *Lenore*, and of the ballad of the Wild Huntsman (*Der Wilde Jäger*). This attempt he himself describes as a complete failure. His first original productions were several excellent ballads (Glenfinlas, the Eve of St. John, &c.), which appeared in Lewis's *Tales of Wonder* (1801). In 1802, appeared his *Minstrelsy of the Scottish Border*, a collection of ballads, ancient and modern, of the Border districts, with an introduction and notes (2 vols. 8vo.), which very much extended his reputation; to which succeeded, in 1804, *Sir Tristram, a metrical Romance of the Thirteenth Century*, by Thomas of Ercildoune, with a preliminary dissertation and glossary. Meanwhile, Mr. Scott had married, and taken up his residence at Ashiesteel, on the banks of the Tweed, about thirty miles from Edinburgh, "a delightful retirement," to use his own words, "in an uncommonly beautiful situation, by the side of a fine river, whose streams are favorable for angling, and surrounded by hills abounding in game." His first original work of considerable extent, was the *Lay of the Last Minstrel* (1805), which was received with universal applause, and was succeeded, two years after, by *Marmion* (1808), the appearance of which was hastened by the misfortunes of a near relation and friend. *The Lady of the Lake* (1810), *the Vision of Don Roderick* (1811), *Rokeby* (1812), *Lord of the Isles* (1814), *Harold the Dauntless*, and *the Bridal of Triermain*, the two latter of which appeared anonymously, with some other works of less merit, marked his brilliant poetical career. Upwards of 30,000 copies of the *Lay* were sold by the trade in England, previously to 1829, and of *Marmion* (for which the author received £1000), 36,000 copies were sold between 1805 and 1825; for the manuscript of *Rokeby* the publishers gave him £3000. If the success of his first productions is in some measure to be attributed, as the author himself modestly intimates, to the low state of poetry in Great Britain at the beginning of the present century, and to the substitution of the animated and varied octosyllabic verse, or romantic stanza, for the more cumbersome and stately heroic, yet the freshness, fire, and truth of description, the dramatic distinctness of the action and characters, the richness of the imagery, and the vivacity and poetical beauty of style which characterize them, would at any time have attracted attention, and won the admiration of the public. Mr. Scott was, during the period in which his principal

poems appeared, also employed in editing the works of other authors. In his capacity of editor, he completed the *Works of Dryden*, with a *Life of the Author*, and *Notes* (18 vols. 8vo., 1808); *Lord Somers's Tracts* (12 vols., 1809 to 1812); *Description and Illustration of the Lay of the Last Minstrel* (1810); *Sir Ralph Sadler's State Papers* (2 vols. 4to., 1810); *Poetical Works of Anna Seward* (3 vols. 8vo., 1810); the *Works of Jonathan Swift* (19 vols. 8vo., 1814); and the *Border Antiquities of England and Scotland*, 4to. In 1811, he removed to Abbotsford, six or seven miles below his former residence, on the Tweed, where he purchased a farm of about 100 acres, for the purpose of having some more quiet out-door occupation than field sports. "The nakedness of the land," says he, "was in time hidden by woodlands; the smallest of possible cottages was progressively expanded into a sort of dream of a mansion house, whimsical in the exterior, but convenient within. Nor did I forget what is the natural pleasure of every man who has been a reader, I mean the filling the shelves of a tolerably large library." Here he continued to reside, exercising the most open hospitality, and receiving the homage of admiration from all parts of the world. His grounds were picturesquely, and at the same time profitably, laid out, and his library amounted to about 15,000 volumes. In 1814, he appeared in a new character—that of a novelist. Although the greater part of his romances were published anonymously, and he did not disclose the fact of his being the author until February, 1827, yet little doubt was previously entertained on the subject. A portion of *Waverley* was written as early as 1805, and announced under the title of "*Waverley, or 'Tis Fifty Years since*." On account of the unfavorable opinion of a friend, it was thrown by and forgotten, until, about eight or nine years afterwards, the author accidentally discovered it in searching for some fishing tackle, and immediately set to work to complete it. The subsequent novels have come out in the following order: In 1815, *Guy Mannering*; in 1816, the *Antiquary*, and *Tales of My Landlord* (consisting of the *Black Dwarf* and *Old Mortality*); 1818, *Rob Roy*, and *Tales of my Landlord* (2nd series, consisting of the *Heart of Mid Lothian*); 1819, *Tales of My Landlord* (3rd series, consisting of the *Bride of Lammermuir*, and the *Legend of Montrose*); 1820, *Ivanhoe*, the *Monastery*, and the *Abbot*; 1821, *Kenilworth*; 1822, the *Pirate*, and the *Fortunes of Nigel*; 1823, *Quentin Durward*, and *Peveril of the Peak*; 1824, *St. Ronan's Well*, and *Redgauntlet*; 1825, *Tales of the Crusaders*; 1826, *Woodstock*; 1827, *Chronicles of the Canonicate* (1st series); 1828, *Chronicles of the Canonicate* (2nd series); 1829, *Anne of Geierstein*; and 1831, *Tales of My Landlord* (4th series). These works, rapidly as they were produced, were not only the fruits of his unaided genius, but the original manuscripts are entirely written in his own hand, excepting those of 1818 and 1819, when his illness obliged him to employ an amanuensis. Among his miscellaneous works, most of which are contained in the col-



Abbotsford



W. Allan. A.R.A. pinx.

E. Goodall sculp.

THE AUTHOR OF WAVERLEY,

IN HIS STUDY.

lection entitled *Miscellaneous Prose Works of Sir W. Scott* (6 vols. 1827), are Paul's Letters to his Kinsfolk (1815), giving an account of his visit to Waterloo, &c.; *Essays on Chivalry, Romance, and the Drama, in the Supplement to the Encyclopædia Britannica*; *Lives of the Novelists*; and contributions to different periodical works, &c. In 1820, he was created a baronet. In 1827, appeared his *Life of Napoleon* (9 vols.)—a work of partial views, and executed with too little care and research to add to the brilliant reputation of the author. The first, second, and third series of the *Tales of a Grandfather*, illustrative of events in Scottish history. The *Letters on Demonology, and the History of Scotland* (2 vols., 1830), close the long list of the works of this prolific writer. The revised editions of his poems and novels contain many interesting personal details, and sketches of his literary history, and some of them have been collected and arranged in America, in a single volume, under the title of *Autobiography of Sir Walter Scott, Bart.*

In 1831, an indisposition, supposed to have arisen from violent and protracted mental exertion, began to assume a settled character, and his physician recommended a residence in Italy as the best means of delaying the approach of a dangerous illness. He in consequence set sail for Italy on the 29th of October, 1831; but, after an absence of nine months, returned in a more unfavourable state of health than when he departed. He returned once more to Abbotsford, and lingered on until the 21st of September, when he expired at half-past one in the afternoon. He was buried amidst the ruined walls of Dryburgh Abbey, on the 25th of the month in which he died; and the hills were covered, and the villages filled, with mourners. He was borne from the hearse by his own domestics, and laid in the grave by the hands of his children.

SCOTT, a county of the north part of Kentucky, United States. The chief place is George Town. Also a county of Virginia, formed in 1814 out of the counties of Lee, Russel, and Washington.

SCOTUS (Joannes), or John Erigena, a famous scholastic divine, born about the beginning of the ninth century; but where, is a matter of dispute among authors. All agree, however, in relating that he travelled to Athens, where he acquired a competent knowledge of the Greek and other oriental languages; and, that he afterwards resided many years in the court of Charles the Bald, king of France, who, on account of his singular abilities, treated him as his intimate friend and companion. During his residence with Charles, he wrote several books of scholastic divinity; which, though absurd enough, were at that time not sufficiently so to secure him from the imputation of heterodoxy; and on that account the pope commanded Charles the Bald to send him to Rome; but the king had too great a regard for his companion to trust him with his holiness. One of the chief controversies in which Scotus was engaged, and with which the pope was much offended, was concerning the real presence of the body and

blood of Christ in the wafer. His opinion was expressed in these few words:—'What we receive corporally is not the body of our Lord; but that which feeds the soul, and is only perceived by faith.' Whether Scotus returned to England, or ended his days in France, is a matter of doubt. Some historians tell us that he left France in 864; and that, after residing about three years in Oxford, he retired to the abbey of Malmesbury. He died about 874. Some relate that he was invited to England by king Alfred; but in this they confound him with John, abbot of Etheling, who was assassinated in 895; and to this mistake the various contradictory accounts of him are to be attributed. He appears from his writings to have been a man of talents, and, in point of learning, superior to any of his contemporaries. He wrote, 1. *De Divisione Naturæ*, lib. v. 2. *De Prædestinatione Dei*. 3. *Excerpta de Differentiis et Societatibus Græci Latine Verbi*. 4. *De Corpore et Sanguine Domini*. 5. *Ambigua S. Maxima seu Scholia ejus in difficiles locos S. Gregorii Nazianzeni, Latine Versa*. 6. *Opera S. Dionysii quatuor in Latinam Ling. Conversa*. 7. *De Visione Dei*, and several other works in MS. preserved in different libraries.

SCOTUS, DUNS (John). See DUNS SCOTUS.

SCOUGAL (Henry), M. A., second son of Patrick Scougal, bishop of Aberdeen, was born June 1650, at Salton. On finishing his courses, he was appointed professor of philosophy in the university of Aberdeen. In four years, he was, at the age of twenty-three, ordained a minister, and settled at Auchterless, twenty miles from Aberdeen; where his zeal and ability were eminently displayed. In the twenty-fifth year of his age he was admitted professor of divinity in the king's college, Aberdeen. He died of a consumption on the 20th of June, 1678, in the twenty-eighth year of his age, and was buried in the King's College Church in Old Aberdeen. The principal work of Scougal is a small treatise entitled, *The Life of God in the Soul of Man*.

SCOUNDREL, *n. s.* Ital. *scondaruolo*. A hider.—Skinner. A mean rascal; a low petty villain. A word rather ludicrous.

Now to be baffled by a *scoundrel*,

And upstart sec'try, and a mungrel. Hudibras.

Scoundrels as these wretched Ombites be,

Canopus they exceed in luxury. Tate.

SCOUR, *v. a. & v. n.* } Goth. *skurer*; Dan. }
SCOURER, *n. s.* } *skurer*; Belg. *scheuren*;
Ital. *scorrere*. To brush hard in order to clean; clean by rubbing; cleanse; purge; range about; to perform scouring operations: be purged or lax; rove; range; run here and there: a scourer is a person or thing that scours.

Divers are kept continually to *scour* these seas, infested greatly by pirates. Sandys.

Poor Vadius, long with learned spleen devoured,
Can taste no pleasure since his shield was scoured.

Pope.

SCOURGE, *n. s. & v. a.* Fr. *escourgée*; Ital. *scoreggia*; Lat. *corregia*. A whip; lash; an instrument of discipline; punisher of any kind: to scourge is to use such an instrument.

Immortal Jove!

Let kings no more with gentle mercy sway,
Or bless a people willing to obey;
But crush the nations with an iron rod,
And every monarch be the scourge of God. *Pope.*

SCOUT, *n. s. & v. n.* Fr. *escout*, from *escouter*; Lat. *auscultare*, to listen; Ital. *scotta*. One who is sent privily to observe the motions of the enemy: to go out in this way.

Of on the bordering deep
Encamp their legions; or with obscure wing
Scout far and wide into the realm of night,
Scorning surprise. *Milton.*

SCOWL, *v. n. & n. s.* Sax. *rcylan*, to squint; Isl. *skeela sig*, to look sour. To frown; pout; look angry, or sullen: a look of this kind; gloom.

I've seen the morning's lovely ray
Hover o'er the new-born day
With rosy wings so richly bright,
As if he scorned to think of night;
When a ruddy storm, whose scowl
Made heaven's radiant face look foul,
Called for an untimely night,
To blot the newly-blossomed light. *Craslow.*

SCRAB'BLE, *v. n.* Belg. *krabbelen*, *scraffe-*
len, to scrape or scratch; Dan. *scrabble*. To paw
with the hands.

He feigned himself mad in their hands, and *scrab-*
bled on the doors of the gate. 1 *Samuel* xxi. 13.

SCRAGG, *n. s.* } Belg. *scraghe*. Any thing
SCRAG'GY, *adj.* } thin or lean: the adjective
corresponding.

From a *scraggy* rock, whose prominence
Half overshades the ocean, hardy men,
Fearless of rending winds and dashing waves,
Cut samphire. *Philips.*

SCRAM'BLE, *v. n.* The same with **SCRAB-**
BLE, says Johnson. A frequent. of Goth. *krama*,
Dan. *granie*, the hand.—Thomson. To catch
at any thing eagerly and tumultuously with the
hands; to catch with haste preventive of ano-
ther; to contend tumultuously which shall catch
any thing.

Of other care they little reckoning make,
Than how to *scramble* at the shearer's feast,
And shove away the worthy bidden guest. *Milton.*

SCRAN'NEL, *adj.* [Of this word I know
not the etymology, nor any other example.—
Johnson.] Swed. *skrenæ*.—Thomson. Vile;
worthless. Perhaps grating by the sound.

When they list, their lean and flashy songs
Grate on their *scrannel* pipes of wretched straw. *Milton.*

SCRAP, *n. s.* From scrape, a thing scraped
or rubbed off; a small particle or piece; a frag-
ment; crumb; small piece of paper.

SCRAPE, *v. a. & n. s.* Sax. *rcneopan*; Belg.
schrapen; apparently from Gr. *γραφο*. To de-
prive of the surface by the light action of a sharp
instrument; pare even; in a low sense, a diffi-
culty; perplexity: a scraper is an instrument
for cleansing by scraping shoes: also a miser
and a vile fiddler.

The chiming clocks to dinner call;
A hundred footsteps *scrape* the marble hall. *Pope.*

SCRATCH, *v. a. & n. s.* Belg. *kratzer*. To
tear or mark with slight ragged incisions: a
mark thus made.

I should have *scratched* out your unseeing eyes,
To make my master out of love with thee.

Shakespeare.

I had rather hear my dog bark at a crow, than a
man swear he loves me.—Keep your ladyship still in
that mind; so some gentleman or other shall 'scape
a predestinate *scratch* face. *Id.*

Heaven forbid a shallow *scratch* should drive
The prince of Wales from such a field as this.

Id. Henry IV.

Francis Cornfield did *scratch* his elbow, when he
had sweetly invented to signify his name St. Francis,
with a friary cowl in a corn field. *Camden.*

Or if too hard and deep
This learning be for a *scratch'd* name to teach
It as a given death's-head keep,
Lovers' mortality to preach,
Or think this ragged bony name to be
My ruinous anatomy. *Donne.*

Scots are like witches: do but whet your pen,
Scratch till the blood come, they'll not hurt you then.
Cleveland.

To wish that there were nothing but such dull
rare things in the world, that will neither bite nor
scratch, is as childish as to wish there were no fire
in nature. *More.*

The lab'ring swain
Scratched with a rake a furrow for his grain,
And covered with his hand the shallow seed again.
Dryden.

Unhand me, or I'll *scratch* your face;
Let go, for shame. *Id.*
The coarse file cuts deep, and makes deep *scratches*
in the work; and, before you can take out those deep
scratches with your finer cut files, those places where
the risings were when your work was forged, may
become dents to your hammer dents.

A sort of small sand-colored stones, so hard as to
scratch glass. *Moxon's Mechanical Exercises.*
Grew's Museum.

These nails with *scratches* shall deform my breast,
Lest by my look and color be expressed
The mark of aught high-born, or ever better dressed.
Prior.

The smaller the particles of those substances are,
the smaller will be the *scratches* by which they conti-
nually fret and wear away the glass until it be po-
lished; but be they never so small, they can wear
away the glass no otherwise than by grating and
scratching it, and breaking the protuberances; and
therefore polish it no otherwise than by bringing its
roughness to a very fine grain, so that the *scratches*
and frettings of the surface become too small to be
visible. *Newton's Opticks.*

Other mechanical helps Aretæus uses to procure
sleep, particularly the *scratching* of the temples and
the ears. *Arbuthnot.*

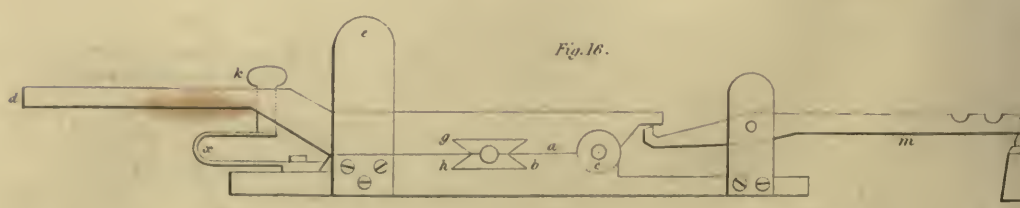
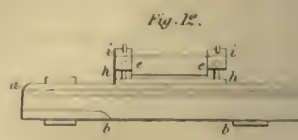
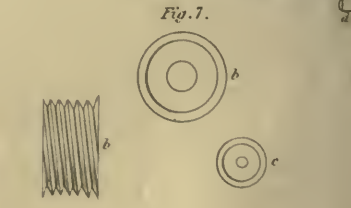
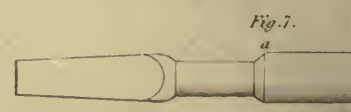
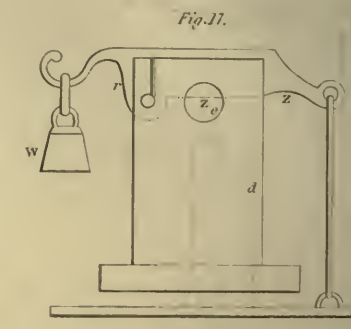
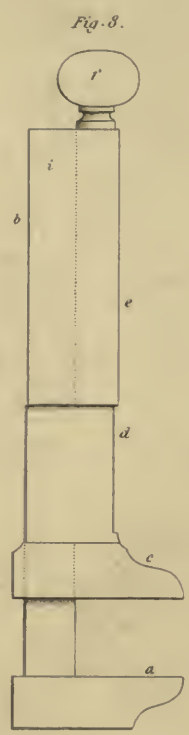
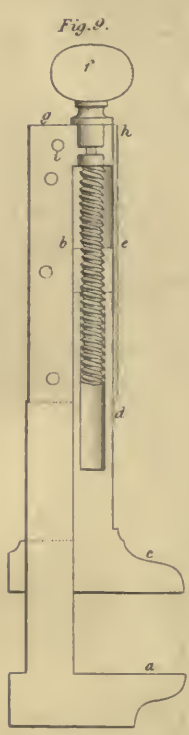
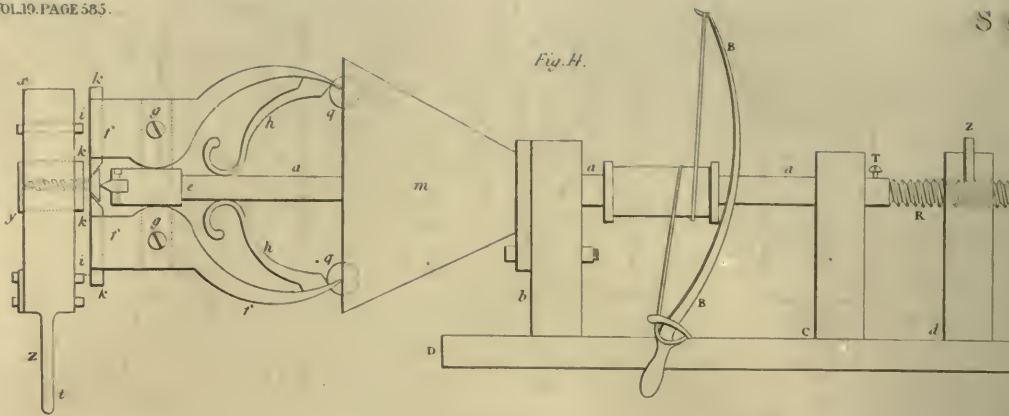
Be mindful, when invention fails,
To *scratch* your head, and bite your nails. *Swift.*
If any of their labourers can *scratch* out a pam-
phlet, they desire no wit, stile, or argument. *Id.*

SCRATCH-PANS, in the English salt-works.
See **SALT**. Their use is to receive a selenitic
matter, known by the name of soft *scratch*,
which falls during the evaporation of the salt
water.

SCRAW, *n. s.* Irish and Erse. Surface or
scurf.

Neither should that odious custom be allowed, of
cutting *scraws*, which is flaying off the green surface
of the ground, to cover their cabins, or make up
their ditches. *Swift.*





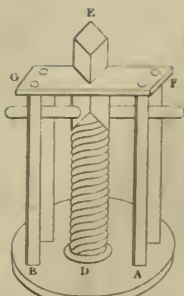


Fig. 6.

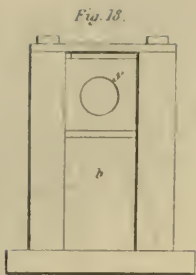


Fig. 18.

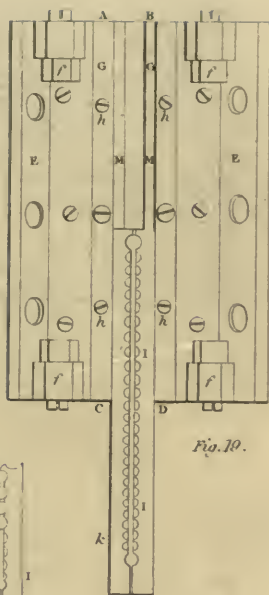


Fig. 10.



Fig. 13.

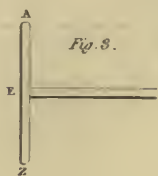


Fig. 8.

Fig. 20.

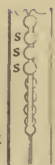


Fig. 2.

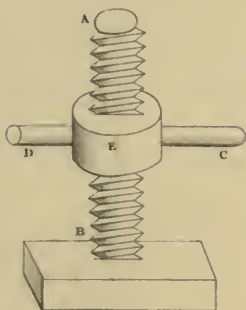


Fig. 4.

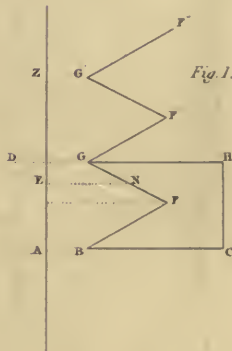
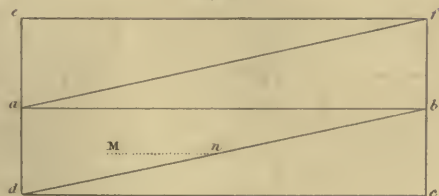


Fig. 1.



Fig. 15.

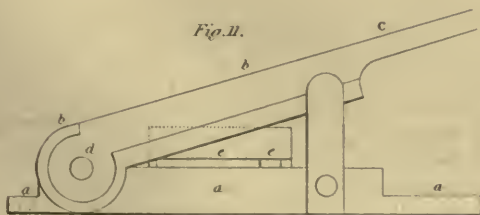
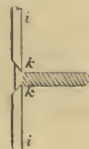


Fig. 11.

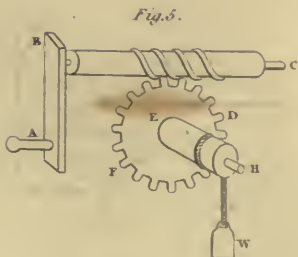
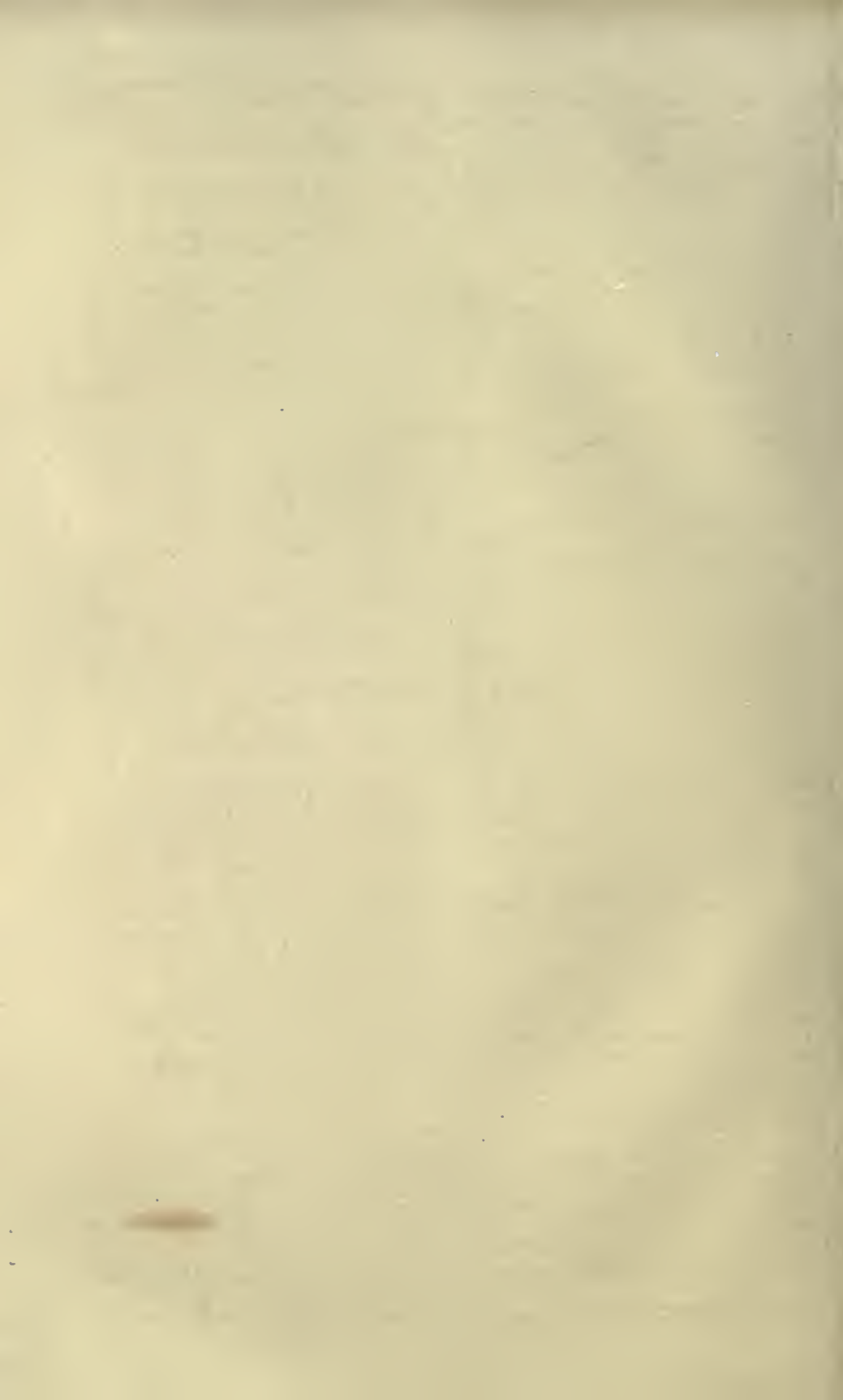


Fig. 5.



SCRAWL, *v. a., v. n., & n. s.* [I suppose to be corrupted from *scrabble*.—Johnson.] To draw or mark irregularly or clumsily: to write thus; the writing itself.

The left hand will make such a *scrawl*, that it will not be legible.

Arbutnot's H. of John Bull.

Mr. Wycherly hearing from me how welcome his letters would be, writ to you, in which I inserted my *scrawl*.

Pope.

Peruse my leaves through ev'ry part,
And think thou seest its owner's heart,
Scrawled o'er with trifles thus, and quite
As hard, as senseless, and as light.

Swift.

Think not your verses sterling,
Though with a golden pen you *scrawl*,
And scribble in a berlin.

Id.

SCREAM, *v. n. & n. s.* Sax. *þræman*. To cry out shrilly, as in terror or agony; the cry made.

I heard the owl *scream*, and the crickets cry.

Shakspeare.

Our chimnies were blown down; and, as they say,
Lamentings heard in the air, strange *screams* of
death.

Id.

The fearful matrons raise a *screaming* cry,
Old feeble men with fainter groans reply;
A jarring sound results, and mingles in the sky.

Dryden.

Then flashed the livid lightning from her eyes,
And *screams* of horror rend the affrighted skies.

Pope.

If chance a mouse creeps in her sight,
Can finely counterfeit a fright;
So sweetly *screams*, if it comes near her,
She ravishes all hearts to hear her.

Swift.

SCREAMER, in zoology. See **PALAMÉDEA**.
SCREECH, *v. n. & n. s.* } Islan. *skrakia*, to
SCREECH-OWL, *n. s.* } cry. To cry out
as in terror or anguish; the cry: the screech-
owl is noted for a cry of this kind.

Deep night,

The time of night when Troy was set on fire,
The time when *screechowls* cry, and bandogs howl.

Shakspeare.

Screeching is an appetite of expelling that which
suddenly strikes the spirits.

Bacon.

By the *screechowl's* dismal note,
By the black night-raven's throat,
I charge thee, Hob.

Drayton.

Jupiter, though he had joggled the balance to weigh
down Turnus, sent the *screechowl* to discourage him.

Dryden.

Sooner shall *screechowls* bask in sunny day,
Than I forget my shepherd's wonted love.

Gay.

The birds obscene, that nightly flocked to taste
With hollow *screeches* fled from the dire repast;
And ravenous dogs, allured by scented blood,
And starving wolves, ran howling to the wood.

Pope.

SCREEN, *n. s.* Fr. *escran*. Any thing that
affords shelter or concealment; a sieve.

Now near enough: your leavy *screens* throw
down,

And show like those you are. *Shakspeare. Macbeth.*
Some ambitious men seem as *screens* to princes in
matters of danger and envy.

Bacon.

When there is a *screen* between the candle and
the eye, yet the light passeth to the paper whereon
one writeth.

Id.

Back'd with a ridge of hills,
That *screened* the fruits of the earth, and seats of
men,
From cold Septentrion blasts.

Milton's Paradise Regained.

A good magistrate's retinue of state *screens* him
from the dangers which he is to incur for the sake of
it.

Atterbury.

This gentle deed shall fairly be set foremost,
To *screen* the wild escapes of lawless passion.

Rowe.

Our people, who transport themselves, are settled
in those interjacent tracts, as a *screen* against the in-
sults of the savages.

Swift.

One speaks the glory of the British queen,
And one describes a charming Indian *screen*.

Pope.

SCREW, *n. s.* Fr. *escrou*; Belg. *scroevé*.
One of the mechanical powers, of which there
are two kinds, the male and female; the former
being cut convex, so that its threads rise out-
wards; the latter channelled on its concave side,
so as to receive the former. See below. To
turn, or move, or fasten, by a screw; deform;
oppress.

We fail!

But *screw* your courage to the sticking place,

And we'll not fail.

Shakspeare. Macbeth.

The *screw* is a kind of wedge, that is multiplied
or continued by a helical revolution about a cylinder,
receiving its motion not from any stroke, but from a
vectis at one end of it. *Wilkins's Mathematical Magick.*

Sometimes a violent laughter *screwed* his face,
And sometimes ready tears dropped down apace.

Cowley.

He resolved to govern by subaltern ministers, who
screwed up the pins of power too high.

Howel's Vocal Forest.

He *screwed* his face into a hardened smile,
And said, Sebastian knew to govern slaves.

Dryden.

After your apples are ground, commit them to the
screw press, which is the best.

Mortimer's Husbandry.

To *screw* your lock on the door, make wide holes,
big enough to receive the shank of the *screw*.

Moxon.

Some, when the press, by utmost vigour *screw'd*,
Has drained the pulposus mass, regale their swine
With the dry refuse.

Philips.

With *screwed* face, and doleful whine, they ply
you with senseless harangues against human inven-
tions on the one hand, and loud outcries for a further
reformation on the other.

South.

No discourse can be, but they will try to turn
the tide, and draw it all into their own channel; or
they will *screw* in here and there some intimations
of what they said or did. *Government of the Tongue.*

Let others *screw* their hypocritic face,

She shews her grief in a sincerer place.

Swift.

Our country landlords, by unmeasurable *screwing*,
and racking their tenants, have already reduced the
miserable people to a worse condition than the pea-
sants in France.

Id.

Ask him, if your knotted scourges,
Matches, blood-extorting *screws*,
Are the means that duty urges
Agents of his will to use?

Cowper.

SCREW. The general principles on which this
instrument is constructed will be found detailed
under our article **MECHANICS**, and we have now
to examine the theory of the screw in connexion
with its application to the useful arts.

The screw may be considered as composed
of the lever and the inclined plane; as will be
evident from a more minute account of the man-
ner in which it may be conceived to be generated.
If an isosceles triangle BFG turn about the axis
AZ (plate **SCREW**, fig. 1), there will be generated

by that revolution two conic frustums united by their greater ends; conceive now that, besides the motion of rotation, this triangle has also a motion of translation in the direction of the axis AZ , so regulated that, while the triangle makes a complete revolution, the point B is moved to G , and the whole triangle is found in the position $G'F'G'$, and so on: the solid thus generated is called the interior screw; and the height GB is called the distance of the threads. The exterior screw is so adapted to the other as if it were its mould; and is nothing else than the solid generated by the polygon $HGFBC$, supposing it to partake of the same motions as the triangle BGF . For the sake of distinction we shall apply the name spindle to the interior screw, calling the exterior one only the screw. The spindle then is a cylinder invested with a spiral band of uniform thickness, and of which the inclination with respect to the axis of the cylinder is constant: the screw, on the contrary, is a solid having a correspondent spiral hollow. In some cases the spindle is fixed in a solid block, as AB , fig. 2, while the screw E is moved upon it by means of a lever DC . At other times the screw is fixed and the spindle moveable; but this causes no difference in the theory.

The curve which any one of the points of the generating polygon, as N for instance, describes about AZ , is obviously traced on the surface of a right cylinder whose axis is AZ , and radius of its base EN (fig. 3). If we develope this, then dc (fig. 4), being the circumference which has EN for its radius, and taking the perpendicular bc equal to the distance between two contiguous threads, the hypothenusal line db will be the development of an entire revolution of the point N . In effect, the helix being throughout of constant inclination with respect to any position whatever of the generating line of the cylinder, every parallel to AD will make with the development of that curve the same angle; thus, the development will be a right line, as db ; and in like manner the right line af will be the development of a second revolution. This being granted, we may demonstrate, in a very satisfactory manner, the truth of the following proposition:—

There will be an equilibrium in the screw when the power is to the resistance as the distance between two contiguous threads in a direction parallel to the axis is to the circumference described by the power.

Let us suppose the spindle AB to be fixed (fig. 2), and that the screw is moveable by the aid of a power P applied to the extremity C of a lever $CE=R$, acting horizontally perpendicular to the lever. Let W be the weight of the screw, or that which the screw supports, or the resistance opposed by the screw to the power P . If the screw pressed only on one of the points of the spindle, suppose it to be at the distance r from the axis, and that its position on the development db of the spiral be at n ; then will the pressure on the spindle be exactly the same as on the inclined plane db . From the theory the power M , which we suppose applied horizontally in the direction Mn , must retain the equilibrium. We may thus illustrate this proportion:

$$M : W :: cb : cd; \text{ whence } M = W \cdot \frac{cb}{cd} = W \cdot \frac{n}{2\pi r}$$

where $h=bc$, and $\pi=3.141593$, as heretofore. The force M , which is supposed applied in n , when the helix is not developed is perpendicular to the edge of the cylinder, or acts in a tangential direction to the cylinder, and in consequence always parallel to the power P .

Now, substituting for this subsidiary power M the power P , acting at the distance R , we have from the principles of the lever $PR=M\tau$, the lengths of the arms being R and τ . For M , in this equation, substitute its value in the former one, and there arises $2\pi RP=W\tau$. This equation, not containing r , is entirely independent of the distance at which the point n is supposed from the axis; it will therefore be the same if we suppose that point any where else on the spindle. Hence we deduce a general result; for this equation will even be true, if the screw, instead of touching the spindle in a single point, as we have hitherto supposed, touch it in any number of points whatever. In this latter case, every point on the thread of the spindle bears a portion of the weight W ; these portions being denoted by $W', W'', W''', \&c.$, give $W'+W''+W'''+\&c.=W$. But, on the other hand, the force P , which supports the weight of the screw, may be considered as the sum of as many forces $P', P'', P''', \&c.$, as there are points of contact, each of which is employed in supporting the weights $W', W'', W''', \&c.$ To each of these the last equation applies; we have, therefore, $W'h=2\pi RP'$, $W''h=2\pi RP''$, $W'''h=2\pi RP'''$, $\&c.$, their sum manifestly producing the equation $Wh=2\pi RP$; whence $P : W :: h : 2\pi R$. Q. E. D.

If the screw had a square or rectangular fillet instead of a triangular one, the conclusion would be the same; for it is independent of the form of the generating polygon.

In the same screw the effect is always the greater as the power is applied farther from the axis.

In two different screws, a force acting with the same distance of lever produces a greater effect in proportion as the threads of the screw are nearer together.

In the endless or perpetual screw BC (fig. 5), which drives the teeth of the wheel FD , we shall, in the case of an equilibrium, have $P \times AB \times \text{rad. of } FD = W \times \text{distance of threads} \times \text{rad. of axle}$. For the perpetual screw is a combination of the axis in perritrochio and the screw.

The screw may be used to measure minute distances; for its point advances through 1 while the radius by which it is turned describes 360° . Instruments for this purpose are named micrometers; their principal part is a fine and accurate screw which carries a frame, across which a fine wire is stretched at right angles to the axis of a telescope or microscope, and in the plane of its principal image; by turning the screw the wire moves parallel to itself, and its distance from a parallel fixed wire is the magnitude of the portion of the image included between them; and from this we draw the magnitude of the object. This distance is indicated by a circular head on the screw which is graduated; thus, if the interval be $\frac{1}{100}$ of an inch, and the circum-

ference of the head three inches, divided into sixty parts for every one of these which passes an index, the wire moves through $\frac{1}{600}$ of an inch. Smeaton asserts that he had used a screw which agreed with itself to $\frac{1}{60000}$. The power of the screw in producing pressure depends on the fineness of its thread, and this is limited by the strength of materials; as, if too fine, it would be broken from the cylinder, and on the other hand micrometer screws cannot be made beyond a certain interval. The endless screw is supposed to be the engine by which the geometer of Syracuse launched by his single strength one of Hiero's galleys, when challenged by that sovereign to give a specimen of the use of mechanics.

In the Philosophical Transactions, vol. lxxi., a new method of applying the screw, so as to make it act with the greatest accuracy, is described by Mr. Hunter. This method depends upon these general principles, applicable to most machines: 1. That the strength of the several parts of the engine be adjusted in such a manner, to the force they are intended to exert, that they shall not break under the weight they ought to counteract, nor yet encumber the motion by a greater quantity of matter than is necessary to give them a suitable degree of strength. 2. That the increase of power by means of the machine be so regulated that, while the force is thereby rendered adequate to the effect, it may not be retarded in procuring it more than is absolutely necessary. 3. That the machine be as simple as is consistent with other conditions. 4. That it be as portable, and as little troublesome as possible in its application. 5. That the moving power be applied in such a manner as to act to the greatest advantage; and that the motion ultimately produced may have that direction and velocity which is most adapted to the execution of the ultimate design of the machine. 6. Of two machines, equal in other respects, that deserves the preference in which the friction least diminishes the effect proposed by the whole.

To attain all these advantages in any one machine is perhaps impossible; but Mr. Hunter's method of applying the screw certainly combines a great portion of them. Let *AB* (fig. 6) be a plate of metal in which the screw *CD* plays, having a certain number of threads in an inch, suppose ten. Within the screw *CD* there is an exterior screw which receives the smaller screw *DE* of eleven threads in an inch. This screw is kept from moving about with the former by means of the apparatus at *AFGB*. If the handle *CKL* be turned ten times round, the screw *CD* will advance an inch upwards; and, if we suppose the screw *DE* to move round along with *CD*, the point *E* will advance an inch. If we now turn the screw *DE* ten times backward, the point *E* will move downwards $\frac{1}{11}$ of an inch, and the result of both motions will be to lift the point *E* an eleventh of an inch upwards. But if, while the screw *CD* is turned ten times round, *DE* be kept from moving, the effect will be the same as if it had moved ten times round with *CD*, and been turned back again ten times; that is, it will advance $\frac{1}{11}$ of an inch. At one turn, therefore, it will advance $\frac{1}{110}$ of $\frac{1}{11} = \frac{1}{110}$ of an inch. If now the handle be six inches long,

the power to produce an equilibrium must be to the weight as 1 to $110 \times 6 \times 2 \pi = 4146.912$. Thus, the force of Mr. Hunter's screw is greatly superior to the common one; for a common one with a six inch handle must have 110 threads in an inch to produce the same effect, and this great number of threads would render it too weak to resist any considerable violence.

With regard to the second general maxim, both kinds of screws are equally applicable; only that the more complicated structure, and consequently greater expense of Mr. Hunter's screw, renders it convenient to use the common screw where only a small increase of power is requisite, and the improved one where a great power is wanted. The handle being short makes this machine accord with the fourth maxim.

To answer the fifth both seem equally proper; but, for the sixth, the preference must be given to such as best answer the specific purpose proposed. Thus, if the screw *DE* be designed to carry an index which must turn round at the same time that it rises upward, the common screw seems preferable; though Mr. Hunter proposes a method by which his may answer the same purpose: with this view a still smaller screw ought to play within *DE*, and be connected with *CD*, so as to move round along with it. It must have, according to the foregoing proportions, 111 threads in an inch: and they must lie in a contrary direction to those of *CD*; so that when they are both turned together, and *CD* moves upwards, this other may move downwards. At one turn this will move upwards $\frac{1}{111}$ th part of an inch, and at the same time will move in a circular direction. Similar methods may be applied in many other cases: indeed they have lately been applied very frequently; though few of those who have adopted them have acknowledged by whom they were first proposed; on which account we have given this brief description of Mr. Hunter's contrivance, and of his judicious practical maxims.

Mr. Walsh has invented a mode of cutting screws by means of a very simple apparatus independent of the guide and slide-rest usually employed for that purpose. The process may be thus described:—The first step is to turn a short cylinder of soft steel exactly twice the diameter of the intended screw. This is then to be fitted on an arbor in the lathe; and, by means of a common screw-stool of the required number of teeth, is to be cut into a double-threaded screw, and is then to be hardened: of this latter screw *bb*, fig. 7, represents a lateral and front view. Another short cylinder of soft steel is then to be made of exactly the diameter of the intended screw; it is then to be fitted on a pin and put into the frame *d*; in this situation it is to be pressed against the cylinder *b*, while revolving in the lathe, until a good thread is raised on its surface. The thread thus formed will be a single one, although taken from a double thread, because, during the process, it revolves in proportion to the larger cylinder as one to two, it will also be a left-handed thread, because taken by impression from a right-handed one. After a few revolutions from the cylinder *c* the frame in which it is placed is to be turned upside

down, and the same number of revolutions are to be made with the frame in this position, by which alteration the thread will be kept quite perpendicular to its axis, and the more the two cylinders are worked together the more will the cylinder *c* be free from errors of the first cylinder. Being completed it is then to be hardened, and is again to be put into the frame *d*. The cylinder *a a* being put into a lathe, the screw *c* is to be pressed hard against it in the manner of a milling-tool, beginning on the right hand: when it has made a sufficient impression, or thread, it is to be shifted one thread towards the left hand, the following threads of the screw always working in the preceding impression, which serves as their guide. This is to be continued till the whole cylinder is impressed with the spiral thread, which will of course be right-handed, because the impressing screw is left-handed. The thread thus obtained is to be eased or cut deeper by the pointed tool *e*, and is then to be finished by the screw *c*, taking care, as before directed, to reverse the frame *d* from time to time. To make a left-handed screw to suit a given right-handed one, tap a cylinder of steel in the same dies and of the same diameter as the given screw, and turn each end down to a pivot and harden it; place it in the open frame *d*, and work it hard against the prepared cylinder exactly as described above for the original screw, by which a left-handed thread will be obtained, which is to be deepened with the point tool, and finished by the roller as before. When this screw is obtained it may be hardened, and left-handed dies may be made from it.

A very ingenious patent process for making screws, by Mr. Colbert, must now be described: 'Fig. 11 is a side view of the apparatus; *a a a* is the lower piece of a pair of cutting shears; this is fixed to a work bench or other solid frame; the upper part *b b* works on a centre *d*, by the handle *c*; *e e* is the face of a plate used to regulate the lengths of wire to be cut, adjustable by apparatus shown in fig. 12.

'Fig. 12 is a perpendicular geometrical view of the same, in which the same letters of reference are affixed respectively to the same parts; *e e* is the upper edge of the plate *e e*, and *g g* an horizontal face of the same plate; this plate is adjustable as to its distance from the cutters *a* and *b*, by a sliding motion on the two bars *h, h*, on sockets *i, i*; to cut the wires he elevated the upper arm *b*, of the shears, and introduced the wires horizontally, and at right angles to the face of the shears, and as far between the cutters as the vertical plate *e e* will allow: the patentee then works the shears in the usual manner of shears, and similar cutting instruments; the required length of the wires being cut, they are placed between the cheeks of a vice.

'Fig. 13 is a groove or cavity of suitable dimensions to the size required, and, the cheeks of the vice being closed, the head of the intended screw is formed by the spreading of the metal by strokes of a hammer; and the solid form of the intended screw thus obtained. There remained the thread to be cut on the cylinder of the length, and the nick or cut to be made across the head; the thread is cut, and head of the screw turned ready for the making of the nick or cut by the

machinery represented in figs. 14, 15, 16, 17; *a a a* is a steel axis, working in supports or uprights, *b, c, d*, on a frame *DD*; at the extremity *e* of the axis, a piece crosses it at right angles, to which is affixed by screws and nuts the two bent arms *f, f*, *f, f*, which move on the screws *g, g*, as centres; each is furnished with a strong spring *h*, which bears against the axis, and presses the corresponding extremity *i* strongly towards each other: in each of these extremities *i, i*, is fixed, by dovetailed slides and screws, a steel cutter *k*; *m* is a conical tube, which may be moved forward along the axis *a a a* (towards the end to which the bent arms *f, f* are fixed), for the purpose hereinafter described, to cut the thread of the screw and turn the head of it. The patentee places the piece of wire of which the screw is intended to be made, between the holding pieces *f, f*, the head of the intended screw between and just within the extremities of the two cutters *k, k*, as shown in fig. 15.

'The fig. 16 represents a side elevation of a metal frame of two parts *a* and *b*, opening from each other on the joint at *c*, by the handle or stem *d*, the upper or movable piece *a*, moving between two cheek pieces, of which one is seen at *e*; into each of these pieces *a* and *b*, and in a direction at right angles to their length, is placed in dovetailed grooves, and there secured by screws, a steel cutter having teeth, or being serrated in the usual way, for the purpose of cutting a screw thread on a metal cylinder introduced between them; these pieces are shown in the figure at *g* and *h*, and they are sufficiently held together for that purpose, by the action of the lever and weight shown in the figure at *m* and *n*. This part of the machinery is placed when in use in a direction at right angles to the direction of the piece shown at fig. 14. The cutters *g* and *h*, being directly opposite to the extremity of the cutters *k, k*, of the fig. 14, and within a small distance of it, so that the wire introduced and held by one extremity by the cutters *k, k*, may by the other extremity introduce itself between the serrated or toothed cutters *g, h*, of fig. 16. The position herein described for the piece represented in fig. 16 is shown in the engraving of fig. 14, at X, Y, Z, which represents a perpendicular geometrical view of the same; the same parts of it being respectively marked with the same letters of reference as in the side elevation of the same piece shown at fig. 16.

'The patentee thus gives motion to the machinery: the fig. 17 is a front elevation of the upright piece *d*, of fig. 14, showing an aperture *O*, a thin steel edge piece *Z Z*, moveable on a centre *r*. It has a suspended weight *W*, at a little distance beyond the centre, and a treadle *S* affixed to the other extremity. A steel screw *R* is fixed to the extremity of the axis *a a a*, fig. 14, and secured by a small screw *T*; this screw *R* passes through the aperture *O*, of fig. 14, without touching it; when the treadle is not pressed, the steel edge *Z Z* remains clear of the screw *R*; but, when the treadle is pressed, the steel edge is forced to enter one of the threads of the screw *R*: this being done, and the axis *a a* made to revolve by the box *BB*, or any

other well known method of turning an axis, the axis, being cylindrical through its whole length, will, by the action of the screw R on the fixed edge Z, make a forward progress, viz. towards that part of the machinery marked xyz , and the rate of that progressive advance will be always regulated and be adjustable by the fineness of the screw R; if the screw R be coarser, the progress will be quicker, and vice versâ; for this purpose of regulation and adjustment, the screw R may be changed at pleasure; the aforesaid progressive advance of the axis aa will thus force the wire, placed as already described at kk , into the small space between the screw cutters gh , of fig. 16, and will thus produce the thread of the screw. The conical piece m is now moved forward over the bent arms f, f, f, f , so as by means of the rollers g, g , and the springs h, h , the extremities i, i , are separated a little, and with them the cutters k, k ; the new screw, which was before held by the cutters k, k , is thus released from them, and is now held between the screw cutters g and h , of fig. 16, but is still at liberty to turn on its thread; a pressure on the handle t , such as to bring the screw k , fig. 15, to bear on the spring x , will hold the screw more firmly so that it cannot be turned; and now if the conical piece m be moved back on the axis aa , to its former situation, so that the cutters k, k , may again approach each other; the axis aa is then caused to revolve, on which the cutters k, k , turn, and forms the bevel of the head of the screw; Mr. Colbert then slides the conical piece a little distance over the bent arms f, f, f, f , as before, so as to detach the cutters kk from the screw; and releases the pressure on the treadle S, of fig. 17, and thus causes the steel edge Z to leave the thread of the screw R, fig. 14. The patentee then causes the axis aa to revolve, and the small cutter marked at the extremity of the axis will turn the flat surface of the head of the screw. The screw is now completed except the nick or cut in the head. By means of the handle t , of the piece xyz , the workman afterwards moves the upper part of the said piece on its lower part by the joint or centre at C, fig. 16, and then lifts the axis aa a little way upwards, by that extremity of it which has the cutters fixed to it, and the screw, so far formed as described, will drop out and clear of the machinery; the axis aa , fig. 14, may be lifted as described, by means of a contrivance shown in fig. 18, in which figure b is a front elevation of the upright piece also marked b , in fig. 14; in this upright part of it in which is the aperture y , through which the axis passes, has a sliding motion up or down, sufficient to allow the lifting of the axis as described.

Fig. 19 is a geometrical plan of a rectangular box or frame, of which ABCD is the lower part, and E, E, two lids or covers, which are in this figure shown as opened and thrown back to show the interior of the frame; the pieces G G, and MM, form a channel or groove, in which may be introduced the metal slide II, which passes on through the whole length of the frame; it passes under the projections of the screw heads h, h, h, h , which thus confine it to its intended place; the plate II is perforated, as

shown in the engraving, to receive the screws on which the machine is intended to operate; they are placed in it as shown at fig. 20, in which II represents a part of the slide, and SS the heads of screws placed in it. The plate II being passed entirely into the frame, as far as the projecting pin k allows, the unfinished screws are placed in it, and the covers E, E, are shut down and fastened. The covers E, E, when they are shut down, do not quite meet, but leave a narrow open space through which the blade of a steel saw is introduced, and with which the heads of all the screws placed in the machine have their nicks or cuts made at the same time.

The following observations published by a 'workman' in the Repertory of Arts are of great importance:—"Having had considerable experience in the construction of new and complicated machinery, and knowing of no method by which minute and accurate movements or divisions may be obtained with such certainty as by means of the screw, it has not unfrequently been the most trying part of my labors to obtain a screw that shall be tolerably accurate throughout, when it has been required of any considerable length. The tapping of screws with new and sharp dies, and great care and slowness, is undoubtedly one of the best, if not absolutely the best method of making a good and true screw. But it is found that, when a stock is worked by hand, there is generally a stopping place perceptible on the screw itself, where the workman changes hands, which is most probably the chief imperfection that produces inaccuracy when such screws are set to subdivide their own threads. If one handle be more depressed than the other, the screw will have a periodical variation of obliquity, which workmen call a drunken screw, and it is difficult to avoid this error where the screw is short. As the dies at best cut rather by the force of the setting screws than the keenness of their own edge, they not only bend the tap or screw, but scarcely ever take equally off from all sides. The best remedy for this is to use long dies; but, even with these, a centred and turned tap will seldom prove straight and round after it has received the thread. In minutely considering the action of the dies it will be seen that the opposite sides of the thread incline towards different regions, and therefore, in effect, cross each other. Hence it is impossible for the dies to be made to approach each other in the plane of the helix. (A tangential plane to the helix, having a vertical axis, will in fact revolve round the axis itself, preserving a constant angular inclination to the same.) But the dies approach in a plane at right angles to the axis. It follows, therefore, that there are limits to diameter, depth of cut, and inclination, beyond which the dies cannot operate. These limits are the cause why a true flat thread screw cannot be cut in dies; and a many-threaded screw, or screw of great obliquity, in a single pair of dies, is impracticable, and can only be cut by a succession of different pairs of dies. If dies are not well fitted in the stock, and the stuff be veiny or unequally hard, they will yield to the hard parts, and by the effect of this shake produce an undulated thread. Long dies do indeed

greatly remedy this imperfection; but it must always exist, however small. As a pair of well fixed dies can never both run along the same stroke till quite home to their natural place, the cut made by the one will tend to draw the other along the cylinder, so that while one die cuts the upper side of the thread, the other die will cut the opposite or under side. In this cross action the frame and the dies themselves will yield from elasticity, and that the more, where the stuff is most hard or the work forced. Hence, with a like pressure, the soft side will have the widest cut, and be soonest cut down, and the sides of the thread will be waving. This seems to be the chief reason why tapping a screw throws it out of centre and roundness. It is found by experience, in the attempt to tap a screw much larger than the original of the dies, that the corners of the dies, taking hold first, are nearly indifferent as to the run; and, if left to operate without pressure in the line of the axis, would as probably cut mere rings, or a left-handed screw, as the right-handed screw (supposed to be in the dies). In these circumstances, therefore, the thread at first turns out to be wavy, with very little rise in the run of each corner, until it suddenly falls into the cut made by the corner it follows. Each turn consists accordingly of four waves, which are amended as the dies sink deeper, and are led by their own slope. But it may be questioned if these waves, once produced, are ever completely removed, so that the screw probably approximates to the truth, without ever attaining it. And, in the nature of the operation of tapping, this error in the first instance can only be diminished, but not absolutely removed, because all cutting is begun by the corner of the dies.

Eddy's screw-wrench.—This screw wrench is actuated by a screw, as that which is in common use, but differs from this latter in the screw being introduced into the sliding part instead of into the handle. By this arrangement the instrument is rendered much stronger, and is not liable to open and shut by the turn of the hand while using it, as is the case with the common one.

In manufactories where the work is heavy, the common wrench is often breaking in the screw, an accident which cannot occur with the new one, as the strain is not on that part which contains the screw. It may be made at nearly the same expense as the one in common use.

Plate SCREW, fig. 8, is a side view. Fig. 9 is an edge view. Fig. 10 is a longitudinal section. [The same letters refer to the same parts in all the figures.] *a* is the fixed chap, *b* is the fixed bar, *c* is the moveable chap which passes through and slides upon the bar, *b*; *d* the moveable bar fixed to the chap *c*. This bar has a hollow barrel screwed at its orifice, in which the solid thumb-screw *f* works. At the extremity of the bar, *b*, is formed a shoulder, on which rests the square piece, *g*; or the bar may be turned up at right angles, forming a short projecting leg, which will answer the purpose of the piece *g*, and will be both stronger and cheaper. A square hole is to be made in *g*, to admit the screw *f*, and this hole is to be contracted in one part by the insertion of two square pins, *i* and *h*

which confine the neck of the screw so as to allow it to turn round, but not to move backwards or forwards: *e* is a plate of iron, wrapped round the end of the instrument in order to keep the parts in their proper places, and to prevent the screws from being choked with dirt. Hence it is obvious that, when the screw *f* is turned in one direction, the barrel *d*, with the chap *e*, is pushed towards the chap *a*, and that it is withdrawn when the screw is turned in the opposite direction.

SCRIBANI (Charles), a Jesuit, born at Brussels in 1561, was successively professor and rector of the college of his native place, but afterwards removed to Antwerp, as provincial of his order, and head of the university. He died in 1629, and is chiefly known by a virulent publication against the Calvinists, printed under the fictitious name of Clarus Bonarscius, and entitled *Amphitheatrum Honoris Adversus Calvinistas*, 4to. 1606. His other works are—1. *History of the Civil Wars of the Low Countries*, in Latin, 8vo. 2. *Originès Antverpensium*, 4to. 3. *Orthodoxæ Fidei controversa*, 4to. 4. *Ars Mentiendi Calvinistica*. 5. *Meditationes Sacre*, 2 vols. 8vo. 6. *Medicus Religiosus*. 7. *Cænobarachia*. 8. *Politico Christiania*.

SCRIBE, *n. s.* } Fr. *scribe*; Lat. SCRIB'BLE, *v. a.* & *n.* } *scriba*. A writer: SCRIB'BLER, *n. s.* } scribble is a diminutive of scribe.

Hearts, tongues, figures, *scribes*, bards, poets, cannot
Think, speak, cast, write, sing, number, ho!
His love to Antony.

Shakspeare. Antony and Cleopatra.

My master, being the *scribe* to himself, should write the letter. *Shakspeare.*

How gird the sphere

With centrick and eccentric, *scribbled* o'er

Cycle and epicycle, orb in orb.

Milton's Paradise Lost

By solemnly endeavouring to countenance my conjectures, I might be thought dogmatical in a hasty scribble. *Boyle.*

The actors represent such things as they are capable, by which they and the scribbler may get their living. *Dryden.*

The most copious writers are the arrantest scribblers, and in so much talking the tongue runs before the wit. *L'Ettrange.*

We are not to wonder, if he thinks not fit to make any perfect and unerring *scribes*. *Grew's Cosmologia.*

The following letter comes from some notable young female *scribe*. *Spectator.*

The scribbler, pinched with hunger, writes to dine, And to your genius must conform his line.

Granville.

If a man should affirm that an ape, casually meeting with pen, ink, and paper, and falling to scribble, did happen to write exactly the Leviathan of Hobbes, would an atheist believe such a story? And yet he can easily digest things as incredible as that. *Bentley.*

If Mævius scribble in Apollo's spite, There are who judge still worse than he can write. *Pope.*

Nobody was concerned or surprised, if this or that scribbler was proved a dunce.

Letter to Pope's Dunciad.

If it struck the present taste, it was soon transferred into the plays and current scribbles of the week, and became an addition to our language.

Swift.

To affirm he had cause to apprehend the same treatment with his father is an improbable scandal flung upon the nation by a few bigotted French scribblers.

Id.

His court, the dissolute and hateful school Of Wantonness, where vice was taught by rule, Swarmed with a scribbling herd, as deep inlaid With brutal lust as ever Circe made.

From these a long succession, in a rage Of rank obscenity, debauched their age.

Cowper.

SCRIMER, *n. s.* Fr. *escrimeur*. A gladiator; a fencing-master. Not in use.

The scrimers of their nation,

He swore, had neither motion, guard, nor eye, If you opposed them.

Shakspeare. Hamlet.

SCRINE, *n. s.* Lat. *scrinium*. A place in which writings or curiosities are reposit.

Help, then, O holy virgin,

Thy weaker novice to perform thy will;
Lay forth out of thine everlasting scrine,
The antique rolls which there lie hidden still.

Faerie Queens.

SCRIP, *n. s.* Isl. *skrappa*. A small bag; a satchel: and (Lat. *scriptio*) a small writing.

Come, shepherd, let us make an honourable retreat; though not with bag and baggage, yet with scrip and scrippage.

Shakspeare.

Call them man by man, according to the scrip.

Id.

He'd in requital ope his leathern scrip,
And shew me simples of a thousand names,
Telling their strange and vigorous faculties.

Milton.

Bills of exchange cannot pay our debts abroad, till scrips of paper can be made current coin.

Locke.

S C R I P T U R E .

SCRIPTURE, *n. s.* } Lat. *scriptura*. Writ-
SCRIP'TURAL, *adj.* } ing; particularly sacred writings; the Bible: commonly used in the plural: the adjective signifies contained in the Bible; biblical.

With us there is never any time bestowed in divine service, without the reading of a great part of the holy scripture, which we account a thing most necessary.

Hooker.

The devil can cite scripture for his purpose:

An evil soul producing holy witness

Is like a villain with a smiling cheek.

Shakspeare.

It is not only remembered in many scriptures, but famous for the death and overthrow of Crassus.

Raleigh.

Forbear any discourse of other spirits, till his reading the scripture history put him upon that enquiry.

Locke.

There is not any action which a man ought to do, or to forbear, but the scripture will give him a clear precept, or prohibition, for it.

South.

Creatures, the scriptural use of that word determines it sometimes to men.

Atterbury.

Scripture proof was never the talent of these men, and 'tis no wonder they are foiled.

Id.

Why are scripture maxims put upon us without taking notice of scripture examples that lie cross them?

Id.

The Author of nature and the scriptures has expressly enjoined, that he who will not work shall not eat.

Seed's Sermons.

SCRIPTURE. The word scripture is most commonly used to denote the writings of the Old and New Testament; called also sometimes The Scriptures, sometimes the Sacred or Holy Scriptures, and sometimes Canonical Scriptures. These books are called the Scriptures by way of eminence, as they are the most important of all writings; they are holy or sacred on account of the doctrines which they teach; and they are termed canonical, because, when their number and authenticity were ascertained, their names were inserted in ecclesiastical canons, to distinguish them from other books; which, being of no authority, were kept as it were out of sight,

and therefore styled apocryphal, from *αποκρυπτω*, to put out of sight. See *ΑΠΟΚΡΥΦΑ*.

Our article BIBLE (to which we beg the attention of the reader as an introduction to this) is chiefly critical; and regards the formation of the Jewish and Christian canon considered as a whole. We shall in this article enter more at large into the question of the authenticity and inspiration of Scripture, and an analysis of its contents.

PART I.

OF THE OLD TESTAMENT.

INTRODUCTION.

The authenticity of the Old Testament may be proved from the character of the Jews, from internal evidence, and from testimony.

1. The character of the Jews forms a strong presumptive evidence that they have not forged or corrupted the Old Testament. Were a person brought before a court of justice on a suspicion of forgery, and yet no presumptive or positive evidence of his guilt could be produced, it would be allowed by all that he ought to be acquitted. But if the forgery alleged were inconsistent with the character of the accused; if it tended to expose to disgrace and reproach his general principles and conduct; or if we were assured that he considered forgery as an impious and abominable crime, it would require very strong testimony to establish his guilt. This case corresponds exactly with the character and situation of the Jews. If a Jew had forged any book of the Old Testament, he must have been impelled to so bold and dangerous an enterprise by some very powerful motive. It could not be national pride; for there is scarcely one of these books which does not severely censure the national manners. It could not be the love of fame; for that passion would have taught him to flatter and extol the national character; and the punishment, if detected, would have been infamy and death. The love of wealth could not produce such a forgery; for no wealth was to be gained by it. The Jews were selected from

all other nations, and preserved a distinct people, from the time of their emigration from Egypt to the Babylonish captivity, a period of 892 years; and they still continue to be a distinct people, though scattered among all the nations in the world; which is itself a standing and perpetual miracle in proof of Christianity, unparalleled in the history of mankind; and which the Christian may defy all the enemies of revelation to account for, without admitting the truth of the Christian system. The principal purposes for which they were selected was to preserve, in a world running headlong into idolatry, the knowledge and worship of the one true God, and to be the guardians of those sacred books that contained the prophecies which were to prove to future ages the divine mission of the Redeemer of mankind. To fit them for these important trusts, the spirit of their laws and the rites of their religion had the strongest tendency. Miracles were openly performed, to convince them that the God of Israel was the God of all the earth, and that he alone was to be worshipped. Public calamities always befel them when they became apostates from their God; yet they continued violently attached to idolatry, till their captivity in Babylon made them for ever renounce it. The Jews then had two opposite characters at different periods of their history. At first they were addicted to idolatry; afterwards they acquired a strong antipathy against it. Had any books of the Old Testament been forged before the Babylonish captivity, when the Jews were devoted to idolatry, is it to be conceived that the impostor would have inveighed so strongly against this vice, and so often imputed to it the calamities of the state; since by such conduct he knew that he would render himself obnoxious to the people, and to those idolatrous monarchs who persecuted the prophets? But it may be alleged that the sacred books were forged after the Babylonish captivity, when the principles of the Jews would lead them to inveigh against the worship of idols. But these principles would surely never lead them to expose the character of their ancestors, and to detail their follies and their crimes. Never had any people more national pride, or a higher veneration for their ancestors than the Jews. Miracles and prophecies ceased soon after their return to Jerusalem; and from that period their respect for the sacred books approached to superstition. They preserved them with pious care, they read them often in their synagogues, and they considered every attempt to alter the text as an act of sacrilege. Is it probable that such men could be guilty of forgery, or could false writings be easily imposed on them?

2. There is internal evidence in the books of the Old Testament that proves them to have been written by different persons, and at distant periods; and enables us with precision to ascertain a time at or before which they must have been composed. It is an undeniable fact that Hebrew ceased to be the living language of the Jews during their captivity in Babylon, and that the Jewish productions after that period were in general written either in Chaldee or in Greek.

The Jews of Palestine, some ages before the coming of our Saviour, were unable, without the assistance of a Chaldee paraphrase, to understand the Hebrew original. It necessarily follows, therefore, that every book which is written in pure Hebrew was composed either before or about the time of the Babylonish captivity. This being admitted, we may advance a step farther, and insist that the period which elapsed between the composition of the most ancient and the most modern book of the Old Testament was very considerable; or, in other words, that the most ancient books of the Old Testament were written many ages before the Babylonish captivity. No language continues stationary; and the Hebrew, like other tongues, passed through its several stages of infancy, youth, manhood, and old age. If, therefore, on comparison, the several parts of the Hebrew Bible are found to differ not only in regard to style, but also in regard to character and cultivation, we have strong internal evidence that they were composed at different and distant periods. No classical scholar would believe, independent of the Grecian history, that the poems ascribed to Homer were written in the age of Demosthenes, the Orations of Demosthenes in the time of Origen, or the Commentaries of Origen in the time of Lascaris and Chrysoloras. For the very same reason, it is certain that the five books which are ascribed to Moses were not written in the time of David, the Psalms of David in the age of Isaiah, nor the prophecies of Isaiah in the time of Malachi; and, since the Hebrew became a dead language about the time of the Babylonish captivity, the book of Malachi could not have been written much later. Before that period, therefore, were written the prophecies of Isaiah, still earlier the Psalms of David, and much earlier than these the books which are ascribed to Moses. But infidels are never critics. A modern one, the apostle of vulgar infidelity, boasts that he had never opened a Bible for many years when he sat down to impugn its divine character.

3. Let us now consider the evidence of testimony for the authenticity of the Old Testament. As the Jews were a more ancient people than the Greeks or Romans, and for many ages totally unconnected with them, it is not to be expected that we should derive much evidence from the historians of those nations; it is to the Jews alone we must look for information. But it has unfortunately happened that few of their works, except the Scriptures themselves, have been preserved. Josephus is one of the most ancient of the Jewish historians to whom we can appeal. He informs us that the Old Testament was divided into three parts, the Law, the Prophets, and the Hagiographa, or the Holy Writings, or poetical books. No man, says he, hath ever dared to add or take away from them. He tells us, also, that other books were written after the time of Artaxerxes; but, as they were not composed by prophets, they were not reckoned worthy of the same credit (see BIBLE). Since the promulgation of the Christian religion, it is impossible that any material alterations or corruptions could have taken place in the books

of the Old Testament; for, from that period they have been in the hands both of Jews and Christians. Had the Jews attempted to make any alterations, the Christians would have detected and exposed them; nor would the Jews have been less severe against the Christians, if they had corrupted the sacred text. But the copies in the hands of Jews and Christians agree; and therefore we justly conclude that the Old Testament is still pure and uncorrupted.

The division mentioned by our Saviour into the Law, the Prophets, and the Psalms, corresponds with that of Josephus. We have therefore sufficient evidence to convince even a deist, that the Old Testament existed at that time. And, if the deist will only allow that Jesus Christ was a person of a virtuous and irreproachable character, he will acknowledge that we draw a fair conclusion, when we assert that the Scriptures were not corrupted in his time; for when he accused the Pharisees of making the law of no effect by their traditions, and when he enjoined his hearers to search the Scriptures, he could not have failed to mention the corruptions or forgeries of Scripture, if any in that age had existed. But we are assured by very respectable authority that the canon of the Old Testament was fixed some centuries before the birth of Jesus Christ. Jesus, the son of Sirach, the author of Ecclesiasticus, makes evident references to the prophecies of Isaiah, Jeremiah, and Ezekiel, and mentions these prophets by name. He speaks also of the twelve minor prophets. It appears also, from the prologue, that the law and the prophets, and other ancient books, existed at the same period. The book of Ecclesiasticus, according to the best chronologers, was written in Syriac, about A. M. 3772, that is 232 years before the Christian era, and was translated into Greek in the next century by the grandson of the author. The prologue was added by the translator; but this circumstance does not diminish the evidence for the antiquity of Scripture; for he informs us that the law and the prophets, and the other books of their fathers, were studied by his grandfather; a sufficient proof that they existed in his time. As no authentic books of a more ancient date, except the sacred writings themselves, have reached our time, we can ascend no higher in search of testimony.

There is, however, one remarkable historical fact which proves the existence of the law of Moses at the dissolution of the kingdom of Israel, when the ten tribes were carried captive to Assyria by Shalmaneser, and dispersed among the provinces of that extensive empire; that is, about 741 years before Christ. About that time the Samaritans were transported from Assyria to repeople the country which the ten captive tribes of Israel had formerly inhabited. The posterity of the Samaritans still inhabit the land of their fathers, and have preserved copies of the Pentateuch, two or three of which were brought to this country in the seventeenth century. The Samaritan Pentateuch is written in old Hebrew characters, and therefore must have existed before the time of Ezra. But so violent were the animosities which subsisted between the Jews and Samaritans, that in no period of

their history would the one nation have received any books from the other. They must therefore have received them at their first settlement in Samaria, from the captive priest whom Shalmaneser sent to teach them how they should fear the Lord (2 Kings xvii.). The canon of the Old Testament, as both Jewish and Christian writers agree, was completed by Ezra and some of his immediate successors. (See BIBLE.) In our copies the sacred books are divided into thirty-nine. The Jews reckoned only twenty-two, corresponding to the number of letters in the Hebrew alphabet. They united the books of Judges and Ruth; they joined the two books of Samuel; the books of Kings and Chronicles were reckoned one; Ezra and Nehemiah one; the Prophecies and Lamentations of Jeremiah were taken under the same head; and the twelve minor prophets were considered as one book—so that the whole number of books in the Jewish canon amounted to twenty-two.

In our article REVELATION will be found several of the general arguments in favor of revealed religion: its connexion with natural religion, &c. Before closing this introductory essay we may add some excellent observations which modern infidelity has been the means of eliciting on the genuineness as distinct from the authenticity of a book; and then advert to the proofs of the inspiration of scripture as distinguishable from both.

The late bishop Watson, addressing Thomas Paine, says, 'You know but of one ancient book that authoritatively challenges universal consent and belief, and that is Euclid's Elements. If I were disposed to make frivolous objections, I should say that even Euclid's Elements had not met with universal consent; that there had been men, both in ancient and modern times, who had questioned the intuitive evidence of some of his axioms, and denied the justness of some of his demonstrations: but, admitting the truth, I do not see the pertinency of your observation. You are attempting to subvert the authenticity of the Bible, and you tell us that Euclid's Elements are certainly true.—What then? Does it follow that the Bible is certainly false? The most illiterate scrivener in the kingdom does not want to be informed that the examples, in his Wingate's Arithmetic, are proved by a different kind of reasoning from that by which he persuades himself to believe that there was such a person as Henry VIII., or that there is such a city as Paris. It may be of use to remove this confusion in your argument to state, distinctly, the difference between the genuineness and the authenticity of a book. A genuine book is that which was written by the person whose name it bears as the author of it. An authentic book is that which relates matters of fact as they really happened. A book may be genuine without being authentic; and a book may be authentic without being genuine. The books written by Richardson and Fielding are genuine books, though the histories of Clarissa and Tom Jones are fables. The history of the island of Formosa is a genuine book; it was written by Psalmanazar: but it is not an authentic book (though it was long esteemed as such, and translated into different languages); for the author, in the latter

part of his life, took shame to himself for having imposed on the world, and confessed that it was a mere romance. Anson's Voyage may be considered as an authentic book, it, probably, containing a true narration of the principal events recorded in it; but it is not a genuine book, having not been written by Walter, to whom it is ascribed, but by Robins.

'This distinction between the genuineness and authenticity of a book will assist us in detecting the fallacy of an argument, which you state with great confidence in the part of your work now under consideration, and which you frequently allude to, in other parts, as conclusive evidence against the truth of the Bible. Your argument stands thus: if it be found that books ascribed to Moses, Joshua, and Samuel, were not written by Moses, Joshua, and Samuel, every part of the authority and authenticity of these books is gone at once.—I presume to think otherwise. The genuineness of these books, in the judgment of those who say that they were written by these authors, will certainly be gone; but their authenticity may remain; they may still contain a true account of real transactions, though the names of the writers of them should be found to be different from what they are generally esteemed to be.

Had, indeed, Moses said that he wrote the first five books of the Bible; and had Joshua and Samuel said that they wrote the books which are respectively attributed to them; and had it been found that Moses, Joshua, and Samuel, did not write these books; then, I grant, the authority of the whole would have been gone at once; these men would have been found liars, as to the genuineness of the books; and this proof of their want of veracity, in one point, would have invalidated their testimony in every other; these books would have been justly stigmatised as neither genuine nor authentic. A history may be true, though it should not only be ascribed to a wrong author, but though the author of it should not be known; anonymous testimony does not destroy the reality of facts, whether natural or miraculous. Had Lord Clarendon published his History of the Rebellion, without prefixing his name to it; or had the history of Titus Livius come down to us under the name of Valerius Flaccus, or Valerius Maximus, the facts mentioned in these histories would have been equally certain.'

This same perspicuous advocate of Christianity may well introduce the arguments for the *inspiration* of Scripture.

Addressing his opponent, with more courtesy than he merited at such hands, he says, in the conclusion of the able Apology for the Bible, 'You admit the possibility of God's revealing his will to man: yet 'the thing so revealed,' you say, is 'revelation to the person only to whom it is made; his account of it to another is not revelation.'—This is true; his account is simple testimony. You add, 'there is no possible criterion to judge of the truth of what he says.'—This I positively deny: and contend, that a real miracle, performed in attestation of a revealed truth, is a certain criterion by which we may judge of the truth of that attestation. I am per-

fectly aware of the objections which may be made to this position; I have examined them with care; I acknowledge them to be of weight; but I do not speak unadvisedly, or as wishing to dictate to other men, when I say that I am persuaded the position is true. So thought Moses, when, in the matter of Korah, he said to the Israelites—'If these men die the common death of all men, then the Lord hath not sent me.' So thought Elijah, when he said, 'Lord God of Abraham, Isaac, and of Israel, let it be known this day that thou art God in Israel, and that I am thy servant;'—and the people, before whom he spake, were of the same opinion; for, when the fire of the Lord fell and consumed the burnt-sacrifice, they said—'The Lord he is the God.' So thought our Saviour when he said—'The works that I do in my Father's name, they bear witness of me;' and, 'If I do not the works of my Father, believe me not.' What reason have we to believe Jesus speaking in the Gospel, and to disbelieve Mahomet speaking in the Koran? Both of them lay claim to a divine commission; and yet we receive the words of the one as a revelation from God, and we reject the words of the other as an imposture of man. The reason is evident; Jesus established his pretensions, not by alleging any secret communication with the Deity, but by working numerous and indubitable miracles in the presence of thousands, and which the most bitter and watchful of his enemies could not disallow; but Mahomet wrought no miracles at all. Nor is a miracle the only criterion by which we may judge of the truth of a revelation. If a series of prophets should, through a course of many centuries, predict the appearance of a certain person, whom God would, at a particular time, send into the world for a particular end; and at length a person should appear, in whom all the predictions were minutely accomplished: such a completion of prophecy would be a criterion of the truth of that revelation, which that person should deliver to mankind. Or if a person should now say (as many false prophets have said, and are daily saying) that he had a commission to declare the will of God; and, as a proof of his veracity, should predict that, after his death, he would rise from the dead on the third day; the completion of such a prophecy would, I presume, be a sufficient criterion of the truth of what this man might have said concerning the will of God. Now I tell you (says Jesus to his disciples, concerning Judas, who was to betray him), before it come, that when it is come to pass, ye may believe that I am he. In various parts of the Gospels our Saviour, with the utmost propriety, claims to be received as the messenger of God, not only from the miracles which he wrought, but from the prophecies which were fulfilled in his person, and from the predictions which he himself delivered. Hence, instead of there being no criterion by which we may judge of the truth of the Christian revelation, there are clearly three. It is an easy matter to use an indecorous sippancy of language in speaking of the Christian religion, and, with a supercilious negligence, to class Christ and his apostles amongst the impostors who have

figured in the world; but it is not, I think, an easy matter for any man, of good sense and sound erudition, to make an impartial examination into any one of the three grounds of Christianity which I have here mentioned, and to reject it.'

Dr. Olinthus Gregory has ably collected the more general arguments for the inspiration of Scripture, and in particular of the New Testament, in the following portion of his Letters on the Evidences of Christianity:—

'A firm and cordial belief of the inspiration of the Bible is, indeed, of the highest moment; for, unless you are persuaded that those who were employed in the composition of the respective books were entirely preserved from error, a conviction of their honesty and integrity will be but of little avail. Honest men may err, may point out the wrong track, however unwilling they may be to deceive; and, if those who have penned what we receive as revelation are thus open to mistakes, we are still left to make the voyage of life in the midst of rocks, and shelves, and quicksands, with a compass vacillating and useless, and our pole-star enveloped in mists and obscurity. But some of these writers assure us that 'all Scripture is given us by inspiration of God' (b); meaning, at least, the Jewish Scriptures; a declaration which deserves attention on the score of the general veracity by which we have already shown their assertions are always marked. Still, as a like claim is made by writers who, it has been ascertained, were wicked and designing, let us enquire on what grounds and to what extent the divine inspiration of the Bible ought to be admitted.

'Theologians have enumerated several kinds of inspiration: such as an inspiration of superintendency, in which God so influences and directs the mind of any person as to keep him more secure from error in some complex discourse, than he would have been merely by the use of his natural faculties:—plenary superintendent inspiration, which excludes any mixture of error whatever from the performance so superintended:—inspiration of elevation, where the faculties act in a regular, and, as it should seem, in a common manner, yet are raised to an extraordinary degree, so that the composition shall, upon the whole, have more of the true sublime, or pathetic, than natural genius could have given:—and inspiration of suggestion, in which the use of the faculties is superseded, and God does, as it were, speak directly to the mind, making such discoveries to it as it could not otherwise have obtained, and dictating the very words in which such discoveries are to be communicated, if they are designed as a message to others. It is not my purpose to enter into any enquiry how far different portions of Scripture were composed under one or other of these kinds of inspiration. I have enumerated them merely to show you that those who contend that Scripture is inspired have not arrived at their decision by a gross and careless process, but by sedulous, critical, and discriminating investigation. I mean, however, to affirm, and I trust the references I

have thrown at the foot of the page, together with a few particular arguments I shall advance, will prove to you the reasonableness of admitting that, while the authors employed in the composition of the Bible exercised generally their own reason and judgment (c), the spirit of God effectually stirred them up to write (d); appointed to each his proper portion and topic, corresponding with his natural talents, and the necessities of the church in his time (e); enlightened their minds and gave them a distinct view of the truths they were to deliver (f); strengthened and refreshed their memories to recollect whatever they had seen or heard, the insertion of which in their writings would be beneficial (g); directed them to select from a multitude of facts what was proper for the edification of the church, and neither more nor less (h); excited afresh in their minds such images and ideas as had been laid up in their memories, and directed them to other ends and purposes than themselves would ever have done of their own accord (i); suggested and imprinted upon their minds such matters as could not have been discovered or known by reason, observation, or information, but were subjects of pure revelation (k); superintended every particular writer, so as to render him infallible in his matter, words, and order, especially whenever they related to facts, discourses, or doctrines, the communication of which is the great object of Scripture; thus rendering the whole canon, at any given period, an infallible guide to true holiness and everlasting happiness (l).

'Now that the Scriptures were actually dictated by an inspiration of this kind may, I think, be inferred both from the reasonableness and from the necessity of the thing. It is reasonable that the sentiments and doctrines developed in the Scriptures should be suggested to the minds of the writers by the Supreme Being himself. They relate principally to matters concerning which the communicating information to men is worthy of God: and the more important the information communicated, the more it is calculated to impress mankind, to preserve from moral error, to stimulate to holiness, to guide to happiness, the more reasonable is it to expect that God should make the communication in a manner free from every admixture or risque of error. Indeed the notion of inspiration enters

(c) Ps. xlv. 1. Mark xii. 36. Luke i. 3. Acts i. 1. 1 Pet. i. 11.

(d) 2 Pet. i. 21.

(e) 2 Pet. i. 21. Matt. xxv. 15.

(f) Jer. i. 11—16. xiii. 9—14. Ezek. iv. 4—8. Dan. viii. 15—19. ix. 22—27. x. 1—8. Amos vii 7, 8. viii. 2. Zech. i. 19—21. iv. 11—14. v. 6. John xvi 13. Eph. iii. 3, 4. 1 Pet. i. 10, 11.

(g) Luke i. 3. John xiv. 26. Jer. xxxi. 3.

(h) John xx. 30, 31. xxi. 25. Rom. iv. 23, 24. xv. 4. 1 Cor. x. 6—11.

(i) Amos i. and ix. Acts xvii. 28. 1 Cor. xv. 33. Tit. i. 12.

(k) Gen. i. ii. iii. Lev. xxvi. Isa. xli. 22, 23. xlv. 21. xlvii. 9, 10. 1 Tim. iii. 16.

(l) Deut. viii. 1—4. Ps. xix. 7—11. cxix. Matt. xxii. 29. Luke xiv. 25—31. John v. 39. Rom. xv. 4. 2 Tim. iii. 15—17. 2 Pet. i. 19.

(b) 2 Tim. iii. 16.

essentially into our ideas of a revelation from God; so that to deny inspiration is tantamount to affirming there is no revelation. And why should it be denied? Is man out of the reach of him who created him? Has he, who gave man his intellect, no means of enlarging or illuminating that intellect? And is it beyond his power to illuminate and inform in an especial manner the intellects of some chosen individuals; or contrary to his wisdom to preserve them from error when they communicate to others, either orally or by writing, the knowledge he imparted to them, not merely for their own benefit, but for that of the world at large?

‘But, farther, inspiration is *necessary*. The necessity of revelation I have shown in a former letter; and the same reasoning, in connexion with what I have just remarked, establishes the necessity of inspiration. Besides this, the subjects of Scripture render inspiration necessary. Some past facts recorded in the Bible could not possibly have been known had not God revealed them. Many things are recorded there as future, that is, are predicted, which God alone could foreknow and foretell, which notwithstanding came to pass, and which, therefore, were foretold under divine inspiration. Others, again, are far above human capacity, and could never have been discovered by men: these, therefore, must have been delivered by divine inspiration. The authoritative language of Scripture, too, argues the necessity of inspiration, admitting the veracity of the writers. They propose things not as matters for consideration, but for adoption: they do not leave us the alternative of receiving or rejecting; do not present us with their own thoughts; but exclaim, ‘Thus saith the Lord,’ and on that ground demand our assent. They must of necessity therefore speak and write as they ‘were inspired by the Holy Ghost,’ or be impostors: and the last supposition is precluded by reasonings which I have again and again brought forward in these letters. Very striking proofs of the inspiration of the Scriptures might be deduced from a consideration of their sublimity, their union of perspicuity with profundity, their piety, their pure and holy tendency, their efficacy, their harmony, and their miraculous preservation. But I shall leave you to reflect upon these at your leisure, and proceed to lay before you, as an argument of no small weight, the testimony of those who lived nearest the apostolic times on this point. They may naturally be expected, so far I mean as is independent of the written word, to know more of the mind of those who, in regard to religious topics, had the ‘mind of Christ,’ than any Christians in subsequent ages.’

Our author then establishes by quotations from these writers (which we have not room to transcribe) that nearly all the Christian writers in the first three centuries, whose performances have wholly or partly reached us, speak of the Scriptures as divine, call them the Holy Scriptures, the sacred fountain, the divine fountains of salvation, &c., evidently implying their inspiration: and that in those early ages the whole church agreed in sentiment that no book should be received into the canon of Scripture of whose inspiration there was any doubt. The curious

reader may consult farther the testimonies collected by Dr. Whitby, vol. i. Pref., by Dr. Lardner in the second part of his *Credibility*, Dr. Doddridge in his *Lectures on Divinity*, and in his *Family Expositor*, vol. iii.

‘Thus, then, we see,’ he adds, ‘that in the primitive ages the universal opinion was in favor of the inspiration of the Scriptures. Let us next enquire how far this opinion grows naturally out of an examination of the Scriptures themselves. Considered in relation to the present subject, the books of Scripture fall under three classes: the prophetic books; the historical books of the Old Testament; and the New Testament, being in part historical, in part doctrinal.’

‘Now, as to the prophetic books, their divine authority and their inspiration follow at once from the completion of several of the predictions they contain: the entire fulfilment of the whole is not essential to the argument. The inspiration of the New Testament may be inferred from the language of our Lord, and that of the apostles. Thus, Jesus Christ promised extraordinary assistance to his apostles. He promised them ‘the Comforter,’ ‘the Holy Spirit,’ ‘the Spirit of Truth,’ who should ‘testify of him,’ should ‘teach them all things, bring all things to their remembrance whatsoever Christ had said unto them, should guide them into all truth, should abide with them for ever, and show them things to come (m).’ Again, he says, ‘when the Comforter is come, whom I will send to you from the Father, even the Spirit of Truth, which proceedeth from the Father, he shall testify of me; and ye also (being so assisted) shall bear witness (n).’ From these passages it is but fair and reasonable to conclude that the aid of this Heavenly Guide was to be vouchsafed them on all suitable occasions; and surely no occasions could render it more expedient than when they were engaged in delivering written instructions, whether in the form of Gospels or of Epistles, which were intended for the edification of the Christian church till ‘time should be no longer.’ In fact, the Spirit could not abide with them for ever, in relation to the church, in any other way than by preserving the word they delivered from such human or diabolical depreciation and corruption as might render it injurious instead of being salutary. It will also be worth our while to notice the remarkable language in which Jesus Christ promises his apostles the extraordinary assistance of the Spirit while they are defending his cause before magistrates. ‘Settle it therefore in your hearts not to meditate before what ye shall answer; for I will give you a mouth and wisdom which all your adversaries shall not be able to gainsay or resist. Take no thought how or what ye shall speak; for it shall be given you in that same hour what ye shall speak; for it is not you that speak, but the Spirit of your Father that speaketh in you (o).’ If this were to be the case when they pleaded before magistrates, how much more reason is there to conclude that, when they

(m) John xiv. 16—26. xvi. 13.

(n) John xv. 26, 27.

(o) Luke xxi. 14, 15. Matt. x. 19, 20. Mark xiii. 11.

were writing for the use of all future generations, it was not so much they who wrote as the Spirit of the Father who dictated to them, and thus wrote by them. For the occasion is evidently much more important in the latter instance than in the former: an error in their writings would have a much more extensive, permanent, and injurious influence, than any error that could occur in a pleading or argument, necessarily of transient impression, before a magistrate.

‘In estimating the authority claimed by the eight writers of the New Testament, we must not only consider their unbroken, unimpeachable integrity, but that five of them were of the number of the apostles to whom the promises just cited were made. Of the other three, one, namely Luke, is generally admitted to have been of the seventy disciples sent out by Christ, and who received the promise of divine superintendence and inspiration recorded in his Gospel (p). With regard to Mark, if his own immediate inspiration cannot be established, that of his Gospel can, since it has never been questioned that he wrote under the superintendence of Peter, an inspired apostle. There then remains only Paul, who repeatedly and solemnly asserts his own inspiration, and his equality in every respect with all the other apostles; appealing to miracles publicly wrought by himself in proof of his divine commission. That the apostles themselves had a full persuasion that they wrote under Divine inspiration is evident from a great variety of texts; to some of the most important of which I shall refer you (q), that you may consult them carefully, and allow them their full impression upon your mind. You will find, too, that the apostles considered themselves as communicating to the world a perpetual rule of faith and practice, which would be comprehended by all except the finally impenitent. If, say they, ‘if our gospel be under a veil, it is veiled to those that are perishing (r).’ On these accounts, as it should seem, they preferred themselves before the prophets, saying (s) ‘God hath set in the church, first, apostles; secondly, prophets; thirdly, teachers:’ language which could not properly have been employed had the apostles been inspired only to preach, and not to write; for in that case they would manifestly be inferior to the prophets, who in their writings, as well as their oral denunciations, ‘spake as they were moved by the Holy Ghost.’

Dr. Doddridge, in his valuable Dissertation on the Inspiration of the Scriptures, well observes:—‘The inspiration, and consequently the genuineness and credibility, of the Old Testament, may be certainly inferred from that of the New, because our Lord and his apostles were so

far from charging the Scribes and Pharisee (who on all proper occasions are censured so freely) with having introduced into the sacred volume any merely human compositions; that, on the contrary, they not only recommend a diligent and constant perusal of these Scriptures, as of the greatest importance to men’s eternal happiness, but speak of them as divine oracles, and as written by the extraordinary influence of the Holy Spirit upon the minds of the authors.

‘I desire that the following list of Scriptures may be attentively consulted and reflected on in this view. I might have added a great many more, indeed several hundreds, in which the sacred writers of the New Testament argue from those of the Old in such a manner as nothing could have justified but a firm persuasion that they were divinely inspired. Now, as the Jews always allowed that ‘the testimony of an approved prophet was sufficient to confirm the mission of one who was supported by it,’ so I think every reasonable man will readily conclude that no inspired person can erroneously attest another to be inspired; and indeed the very definition of plenary inspiration absolutely excludes any room for cavilling on so plain a head. I throw the particular passages which I choose to mention into the margin below (t); and he must be a very indolent inquirer into a question of so much importance, who does not think it worth his while to turn carefully to them; unless he have already such a conviction of the argument that it should need no farther to be illustrated or confirmed.’

Of late, objections to the evidence from miracles for the inspiration of Scripture having been revived in one of our most popular literary journals, bishop Gleig, of the Scottish Episcopal Church, has inserted a valuable Supplementary Dissertation on the Miracles of our Lord and his Apostles in his new edition of Stackhouse’s History of the Bible. The following is an abstract of the most material part of this excellent essay:—

‘A miracle has been defined—‘An effect or event contrary to the established constitution or course of things, or ‘a sensible deviation from the known laws of nature.’ To this definition I am not aware that any objection has ever been made, or indeed can be made. That the visible world is governed by stated general rules or laws; or that there is an order of physical causes and effects established in every part of the system of nature, which falls under our observation, is a fact, which is not, and cannot be, controverted. Effects which are produced by the regular operation of these laws or physical causes, or which are conformable to the established

(p) Luke xii. 11, 12. See also Luke x. 16.

(q) 1 Cor. ii. 10—16. iii. 21—23. xi. 23. xiv. 37. 2 Cor. ii. 10. iii. 5, 6. iv. 8. xi. 7. xiii. 3. Gal. i. 11, 12. Ephes. iii. 3—5. 10. iv. 11, 12. 1 Tim. i. 11. 1 Pet. i. 12. 21. 2 Pet. iii. 2. 15, 16. John x. 35. 1 John ii. 20. iv. 6. Rev. i. 1, &c. 1 Thess. i. 5. 2 Thess. ii. 13.

(r) *Εἰ δὲ καὶ ἐστὶ κεκαλυμμένον τὸ εὐαγγέλιον ἡμῶν, ἐν τοῖς ἀπολλυμένοις ἐστὶ κεκαλυμμένον.* 2 Cor. iv. 3.

(s) 1 Cor. xii. 28. Ephes. ii. 20.

(t) John v. 39. Matt. iv. 4. 7. 10. Mark xii. 24. Luke x. 26, 27. Matt. v. 17, 18; xxi. 42; xxii. 29. 31. 43; xxiv. 15; xxvi. 54. 56. Luke i. 67. 69, 70; xvi. 31; xxiv. 25, 27. John vi. 31; x. 35. Acts ii. 16. 25; iii. 22. 24; iv. 25; xvii. 11; xviii. 24. 28; xxviii. 25. Rom. iii. 2. 10; ix. 17. 25. 27. 29; x. 5. 11. 16; xv. 4; xvi. 26. 1 Cor. x. 11. 2 Cor. iv. 13; vi. 16, 17. Gal. iii. 8. 1 Tim. v. 18; 2 Tim. iii. 15, 16. Heb. i. 1. 5—13; iii. 7. Jam. ii. 8; iv. 5, 6. 1 Pet. i. 10—12. 2 Pet. i. 19—21.

course of events, are said to be natural; and every palpable deviation from this constitution of the natural system, and the correspondent course of events in it, is called a miracle.

‘If this definition of a miracle be accurate, no event can be justly deemed miraculous merely because it is strange, or even to us unaccountable; for it may be nothing more than the regular effect of some physical cause operating according to an established though unknown law of nature. In this country earthquakes happen but rarely, and at no stated periods of time; and for monstrous births perhaps no particular and satisfactory account can be given: yet an earthquake is as regular an effect of the established laws of nature as the bursting of a bomb-shell, or the movements of a steam engine; and no man doubts but that, under particular circumstances unknown to him, the monster is nature’s genuine issue. It is therefore necessary, before we can pronounce an event to be a true miracle, that the circumstances under which it was produced be known, and that the common course of nature be in some degree understood; for, in all those cases in which we are totally ignorant of nature, it is impossible to determine what is, or what is not, a deviation from her course. Miracles, therefore, are not, as some have represented them, appeals to our ignorance. They suppose some antecedent knowledge of the course of nature, without which no proper judgment can be formed concerning them; though with it their reality may be so apparent as to leave no room for doubt or disputation. Thus, were a physician to give instantly sight to a blind man, by anointing his eyes with a chemical preparation, which we had never before seen, and to the nature and qualities of which we were absolute strangers, the cure would to us undoubtedly be wonderful; but we could not pronounce it miraculous, because it might be the physical effect of the operation of the uuguent on the eye. But were he to give sight to his patient merely by commanding him to receive it, or by anointing his eyes with spittle, we should with the utmost confidence pronounce the cure to be a miracle; because we know perfectly that neither the human voice, nor human spittle has, by the established constitution of things, any such power over the diseases of the eye. No one is now ignorant that persons apparently dead are often restored to their families and friends, by being treated, during suspended animation, in the manner recommended by the Humane Society. To the vulgar, and sometimes even to men of science, these resuscitations appear very wonderful; but, as they are known to be effected by physical agency, they can never be considered as miraculous deviations from the laws of nature, though they may suggest to different minds very different notions of the state of death. On the other hand, no one could doubt of his having witnessed a real miracle who had seen a person, that had been four days dead, come alive out of the grave at the call of another, or who had even beheld a person exhibiting all the common evidences of death instantly resuscitated merely by being desired to live. Thus easy is it to distinguish between such miracles as those of our

blessed Saviour and the most wonderful phenomena produced by physical causes, operating according to the established laws of nature. Yet it seems difficult to admit, on any occasion, a suspension of these laws; and we may safely pronounce that they have never been suspended but for some important purpose, which could not otherwise have been accomplished. ‘Events,’ says an able writer, ‘may be so extraordinary that they can hardly be established by any testimony;’ and the instance which he gives is of an event, in which I am not aware that any law of nature would be suspended. ‘We would not give credit to a man who should affirm that he saw 100 dice thrown in the air, and that they all fell on the same faces.’ To such an affirmation I certainly would give no credit; for, though I think that 100 dice might all fall on the same faces without the suspension of any known law of nature, such an event is so extremely improbable, and of so very little importance in itself, that it would require the evidence of more than one witness to establish its credibility. The author however considers it as the violation of some unknown law of nature, and immediately infers, from its not being admitted on the report of one man, ‘that the probability of the continuance of the laws of nature is superior to every other evidence, and to that of historical facts the best established.’ In this inference I cannot acquiesce; but, before entering into any discussion on the subject, it will be necessary to ascertain with some precision what is meant by the laws of nature, and whence those laws had their origin.

‘If this profound mathematician (Laplace is here referred to) be, as his countrymen in general were some years ago, convinced, either that there is no God; or that, if there be a God, he is not the moral governor of the world; or that the present laws of nature, or the established course of things, have existed from all eternity independent of him and of every intellectual being, he is perfectly consistent when he says that no weight of testimony could prove the miraculous suspension of these laws. It would indeed be ridiculous to talk of miracles to the atheist or fatalist; for if there were no God, or if God were not the moral as well as physical governor of the world, the very notion of miracles, as it is entertained by Christians, would involve in it a contradiction and absurdity. It is only with theists, therefore, and such theists as, admitting the moral attributes of God, believe that the established course of things, or the laws of nature, were established by him for the accomplishment of some great and good purpose, that any discussion can be carried on respecting the evidence necessary to prove the temporary suspension of any one of these laws; for if they be all necessary, and have been from eternity, it is as impossible to suspend them by any power, or for any purpose, as it is to render a geometrical axiom false.’

Let us now suppose that, when the Creator of the world was about to establish that course of events which we call the laws of nature, in such order as he knew would produce the greatest quantity of happiness to the whole sentient and intelligent creation, he foresaw that man, for whose accommodation chiefly we must suppose

this earth to have been fitted up, would bring himself into such circumstances that his happiness would become impossible, unless some one of these laws should for a time be suspended; may we not suppose that a Being of infinite power and wisdom might make provision for such an event in the very establishment of those laws? To control by force the freedom of the human will would be to destroy that very nature on which depends the greatest happiness of which man is capable; but might not some portion of inanimate matter be diverted for a short time from its regular course without the smallest injury to any sentient or intelligent being in the universe? In the journal to which I have already referred, it is confidently affirmed that it could not. 'Suppose a man,' says this critic, 'not at all versed in astronomy, who considers the moon merely as a luminous circle that, with certain irregularities, goes round the earth from east to west nearly in twenty-four hours, rising once and setting once in that interval. Let this man be told, from some authority that he is accustomed to respect, that on a certain day it had been observed at London that the moon did not set at all, but was visible above the horizon for twenty-four hours:—there is little doubt that, after making some difficulty about it, he would come at last to be convinced of the truth of the assertion. In this he could not be accused of any extraordinary or irrational credulity. The experience he had of the uniform setting and rising of the moon was but very limited; and the fact alleged might not appear to him more extraordinary than many of the irregularities to which that luminary is subject. Let the same thing be told to an astronomer, in whose mind the rising and setting of the moon were necessarily connected with a vast number of other appearances; who knew, for example, that the supposed fact could not have happened, unless the moon had exceedingly deviated from that orbit in which it has always moved; or the position of the earth's axis had been suddenly changed; or that the atmospherical refraction had been increased to an extent that was never known. Any of all these events must have affected such a vast number of others, that, as no such thing was ever before perceived, an incredible body of evidence is brought to ascertain the continuance of the moon in her regular course. The barrier that generalization and the explanation of causes thus raises against credulity and superstition,—the way in which it multiplies the evidence of experience, is highly deserving of attention, and is likely to have a great influence on the future fortunes of the human race. Against the uniformity, therefore, of such laws, it is impossible for testimony to prevail.' Certainly, it is impossible for such testimony as that supposed, to prevail against the uniformity of any law of nature; for, as I have already observed, if those laws be necessary and eternal, their uniformity can never be interrupted for any purpose or by any power, and, if they have been established by a God of perfect wisdom and goodness, we may be assured that they will never be suspended for so unworthy a purpose as only to make the citizens of London stare, and enable

one of them to try the credulity of some clown, who believes the moon to consist, according to the Scotch expression, of green cheese! What such a ridiculous tale as this, supposing it ever to have been seriously told, would have to do with superstition, it is not easy to conceive; but the ingenious critic might as well have told us, in plain terms, that it is impossible for testimony to render credible what is said of the sun and moon standing still at the call of Jeshua; for even his friend, who believes the moon to be a mere luminous circle of cheese, if at all conversant with his Bible, must perceive that this is what he intended to say under the cover of a clumsy apologue.

'If the laws of nature be the work of fate, I readily agree with him that the story of the sun and moon standing still cannot be rendered credible by any testimony. If those laws be, as I believe them to be, the constitution of an Almighty and infinitely wise and good God, I likewise readily agree with him that no testimony could render credible the phenomena of the sun and moon's standing still, but for some important purpose that could not have been otherwise so well accomplished. What the purpose was for which the children of Israel were separated from the idolatrous nations around them, and established in the land of Canaan, has been fully stated elsewhere; and the theist, with whom I am now arguing, will admit that, whether it was real or not, that purpose was of great importance. Great, however, as that purpose was, for the reasons elsewhere assigned, no testimony could prevail with me to believe, that, for the sake of it, the rotation of the earth on its axis, and the course of the moon in her orbit, were literally arrested, unless the same Almighty power wrought another miracle at the same instant to prevent the natural consequences of the sudden cessation of motions so rapid. Without this second miracle, I am as fully aware as our critic, that those events produced by the first must have not only affected a vast number of others, but been also productive of mischief—such as the reducing of the earth to a state of chaos—more than sufficient to balance the good expected from the miracle;—nay, that they would have rendered the miracle itself useless, by destroying those for whose instruction it was meant to be wrought. I confess, however, that I do not perceive what injury could have been done to any sentient or intelligent being in the solar system, or how the different planets, of which that system is composed, could have been disturbed in their courses, by an extraordinary atmospherical refraction of part of the solar rays, by which I believe the miracle in question to have been affected. It is very true that my knowledge of the sciences of astronomy and optics is very limited when compared with that of Laplace and his friend; but I may surely be allowed to know more of them than the man, who, without displaying any irrational credulity, believes that on a certain day the moon had at London forgotten to set. I have likewise conversed often, on the subject of miracles in general, and of that of Joshua in particular, with philosophical laymen, some of whom, with re-

spect to their knowledge of optics and astronomy, might, without presumption, have been brought into comparison even with Laplace; and they saw as little danger as I do, to any part of the creation, from a temporary increase of the refractive power of the atmosphere to any extent. Indeed all philosophical theists, with whom I have conversed freely on such subjects, have held the will of God to be the immediate cause (I mean efficient cause) of every law of inanimate nature, as well as of every deviation from those laws, which deviations were foreseen and provided for from the beginning, when 'the world first rose out of chaos.' I confess likewise that I see not how the restoration of a dead man to life, or any other miracle recorded of our Lord in the Gospels, could affect such a vast number of others as to bring what our critic calls an incredible body of evidence against the reality of those miracles. The most astonishing of them all has long appeared to me to be the multiplication of the loaves and fishes, because it seems to imply the power of creation; and we certainly have the evidence of uniform experience, as far as experience can be had in such a case, that not an atom of matter has been either created or annihilated since the beginning of the world. The quantity, however, of new matter added, on those two occasions, to the old, supposing such to have been the case, was comparatively so small, that the philosophers, who 'weigh not only the mountains of the earth,' but even the earth itself and all the planetary system, 'in a pair of scales,' and who hope, by the aid of 'a calculus sufficiently powerful, to make near approaches to omniscience,' will admit that it could not have greatly disturbed the motions of the earth and moon, or any other planet.

'On the principles of pure theism, therefore, though certainly not on those of atheism or fatalism, the possibility of miracles—and even of such miracles as those of our Lord,—will surely be admitted: but the great question is, what evidence is sufficient to render them credible? The Christians say that the evidence of testimony is sufficient for this purpose, and indeed that no other evidence can be had. That the truth of the gospel miracles admits, in the present age, of no other evidence than that of testimony, will be readily admitted; but our critic contends, as Hume had done before him, that the improbability of the violation of the order of those events, of which the course is known from experience to be perfectly uniform, is so strong, that no testimony can prevail against it. 'It will always be more wonderful,' he says, 'that the violation of such order should have taken place, than that any number of witnesses should have been deceived themselves, or should be disposed to deceive others.' If this doctrine be true, how many facts have taken place in nature, or have been said by philosophers to take place in nature, which not one man of 10,000, or even 10,000,000, can rationally believe to have happened! 'That testimony derives all its force from experience,' says the critic, 'seems very certain;' and Hume, as he acknowledges, had said the same thing before him. But, if this be true, upon what evidence can I and hundreds of millions beside me

believe, that showers of meteoric stones have, in different ages and distant nations, fallen from the atmosphere on the earth? I never saw one such stone fall, and I have the evidence of uniform experience that the atmosphere does not regularly generate metallic stones. Every man who is in the same predicament with me has the same immense weight of experience to place in the balance against the testimony of the comparatively very small number who say that they had witnessed such stones fall from the heavens; and, if it be very certain that testimony derives all its force from experience, how can it be possible for hundreds of millions of men, possessing common sense, to admit, in opposition to their own uniform experience, the testimony of some dozens of people who may have been deceived themselves, or disposed, like the London citizen with his moon of cheese, to deceive others? It is vain to say that we have the experience of ages, and of numbers of chemists who have examined the stones, in corroboration of the testimony that they fell from the heavens; for in this argument, where experience of the uniformity of the laws of nature is opposed to testimony bearing witness that those laws have been occasionally suspended, no experience can be admitted but individual personal experience. The experience of ages and of distant nations—indeed the experience of every individual but myself—is known to me only by testimony; and is it possible that any philosopher can seriously contend that testimony derives all its force from that experience, of which we never could have known any thing—of which, indeed, we never could have heard—but through the medium of testimony? This is surely not possible, and therefore it must be by every man's individual personal experience, by which, on the principles of Hume and his followers, the truth of testimony is to be tried. If so, I ought not to believe that there has ever been an earthquake; for I never felt the shock of one, though I have heard of many, and of some which were said to have been felt by numbers in the very town where I then was! I ought not to believe that a monstrous child was ever born of a woman; for I never saw a human being, who could with any propriety be called a monster, whilst I know, by uniform personal experience, that every monstrous birth, if there have been any such births, has been a deviation from the regular course of nature. In vain shall I be told that earthquakes may be accounted for in certain circumstances, and shown to be produced by the operation of the laws of nature; for those circumstances are probably assumed for the purpose, and, whether they be or not, they are made known to me only by testimony which I ought to disregard, because directly contrary to my uniform experience.

'But even this mode of converting testimony into experience cannot be had recourse to in the case of the meteoric stones; for, according to one of the most scientific chemists of the age, 'it would be absurd, in the present state of our knowledge, to attempt any explanation of the manner in which they are formed; for not even a conjectural cause for them in the smallest degree probable can be assigned.' We are told in-

deed that the testimony produced in support of the origin of those stones, 'has been confirmed by a scrupulous examination into the natural history of the facts (the stones) themselves. When the stones which were said to have fallen from the heavens came to be chemically analyzed, they were found to have every where the same characters, and to consist of the same ingredients, nearly in the same proportions; whilst no other stones have any where been found of precisely the same character. 'Here, therefore,' says the reviewer of Laplace, 'we have a testimony confirmed, and rendered quite independent of our previous knowledge of the veracity of the witnesses.' This inference I cannot admit; nor can I conceive by what rule of logic it is drawn from the premises. Not to insist on the unquestionable fact that the result of the chemical analysis of the stones can be known, to those myriads who were not present when it was made, only by testimony, all that seems to me to have been proved by that analysis is that the stones in question are of one and the same species, and that the species itself is very uncommon. These two facts I admit to have been completely proved; for I have no hesitation to receive the testimony of the chemist by whom they were ascertained; but why stones of a singular character, found in different regions of the earth, should therefore be inferred to have fallen from the heavens, I confess that I am yet to learn. That a stone of two or three tons weight, as some of those meteoric stones have been, should be generated in the higher regions of the atmosphere, and float in a horizontal direction over various countries, at the distance of sixty miles from the earth, is directly contrary not only to all my experience, but likewise to all that I know of the constitution of the atmosphere, as well as of the law of gravitation—the best ascertained, perhaps, of all the laws of corporeal nature! Am I then to reject with scorn all that I have been told of ignited stones falling from the heavens? Undoubtedly I ought to do so, if testimony derives all its force from experience; for though those stones have been chemically analysed, and their composition ascertained by experiments, not an individual of the human race can believe that they fell from the atmosphere on any other evidence than the unsupported testimony of those very few persons who have said that they saw them fall. 'But it will always be more wonderful that masses of iron, pyrites, and earth, of the weight of two or three tons, should be formed in the higher regions of the atmosphere, and even float horizontally in that rare medium, as a log of wood floats in water, than that any number of witnesses, who affirm that they say them fall, should have been deceived themselves, or disposed to deceive others.' They may have had their origin in the heart of the earth, and been forced upwards by subterraneous fire; and this may seem the more probable, that the principal ingredient in them is iron in the metallic state; that they have been generally found hot and buried to a considerable depth in the earth; and that such eruptions from the bowels of the earth, through the craters of volcanoes, have frequently been accompanied by appearances in the air which might easily be

mistaken by a few individuals—almost stupified with astonishment—for meteors descending from the heavens.

'In a word, it appears to me that there is not one objection urged by Hume, Laplace, or any of their pupils, against the sufficiency of testimony to prove the reality of the gospel miracles, which does not hold with at least equal force against the reality of those showers of meteoric stones which are said to have fallen in all the quarters of the globe. The truth, however, is, that these objections are in both cases founded on a palpable mistake. Testimony is so far from deriving all its force from experience, that as was justly observed long ago (by Dr. Campbell in his admirable *Dissertation on Miracles*), it is the sole foundation of by far the greater part of what the opponents of the gospel call firm, unalterable, and universal experience; and that if we did not, in certain circumstances, repose implicit confidence in testimony, every man's knowledge of events would be confined to those which had fallen under the immediate observation of his own senses. Hume seems to have been perfectly aware of this, when he supposed a case, in which, were it ever to occur, testimony would be sufficient to establish the credibility even of a miracle. 'No testimony,' says he, 'is sufficient to establish a miracle, unless the testimony be of such a kind that its falsehood would be more miraculous than the fact which it endeavours to establish.—When any one tells me, that he saw a dead man restored to life, I immediately consider with myself, whether it be more probable that this person should either deceive or be deceived, or that the fact, which he relates, should really have happened. I weigh the one miracle against the other, and, according to the superiority which I discover, I pronounce my decision, and always reject the greater miracle. If the falsehood of his testimony would be more miraculous than the event which he relates; then, and not till then, can he pretend to command my belief or opinion.'

'There is some inaccuracy of language in talking of greater and less miracles when omnipotence is supposed to have performed them all; but it is no more than justice to acknowledge that the author admitted, in a note, that all real miracles are equally easy to the Almighty, by observing 'that the raising of a feather, when the wind wants ever so little force requisite for that purpose is as real a miracle as the raising of a house or ship into the air.' By greater and less miracles therefore, and by always rejecting the greater, it is evident that he meant nothing more than that of two or more deviations from the known laws of nature, one might in itself, when contemplated with all its circumstances, appear less probable than the others; and that, if he could not reject them all, his principles would compel him to reject that which should appear least probable when viewed in all its bearings. This seems to be a just maxim; and therefore, if it can be shown that the testimony given by the apostles and other first preachers of the gospel to the miracles of their Lord, would, on the supposition that those miracles were not really performed, have been as great a deviation from the

known laws of nature as the miracles themselves, the balance must be considered as evenly poised by opposite miracles; and, whilst it shall continue so, the judgment must remain in a state of suspense. But if it shall appear that, in this case, the false testimony would have been a deviation from the laws of nature much less probable in itself than the miracles recorded in the gospels, the balance will be instantly destroyed; and, by Mr. Hume's maxim, we must reject the supposition of falsehood in the testimony of the apostles, and admit the miracles of Christ to have been really performed.

‘In this argument it is needless to waste time in proving that those miracles, as they are represented in the writings of the New Testament, were of such a nature, and performed before so many witnesses, that no imposition could possibly be practised on the senses of those who affirm that they were present. From every page of the gospels this is so evident that the philosophical adversaries of the Christian faith never suppose the apostles to have been themselves deceived, but boldly accuse them of bearing false witness. But, if this accusation be well founded, their testimony itself is as great a miracle, or, in other words, as real a deviation from the laws of nature, as any which they record of themselves or of their master. That testimony does not derive all its force from experience has been already proved; and is indeed little less than self-evident from the unquestionable fact that the earliest assent, which is given to testimony by children who have no experience, is unlimited, whilst the experience of age renders men distrustful. Exactly the reverse would be the case, were our belief in testimony the result of experience. It has therefore been thought that the beneficent Author of nature, who intended man to be a social creature, hath implanted in every human breast an instinctive propensity to speak truth, and likewise a disposition to confide implicitly in the veracity of others; and it cannot be denied that children believe whatever is told them, and that the greatest liar on earth speaks a hundred truths for one falsehood. That truth is indeed always at the door of the lips; that it requires no effort to bring it forth; that in ordinary cases men speak truth uninfluenced by any motive moral or political; and that lying is never practised by the worst of men without some effort to accomplish some end, are positions which daily experience renders it impossible to question. But, notwithstanding all this, I do not think that truth is spoken by an original and instinctive principle; because men appear not to be impelled by instinct to speak any articulate language at all; and it is surely inconceivable that instinct should teach the use of arbitrary and artificial signs, such as the words of every language undoubtedly are, or that between such signs and ideas any natural relation should ever be formed.’—In human testimony the ideas in the mind of the speaker are the things signified, and the words of the language spoken are the signs by which they are expressed; and, when these things and signs are in conformity to each other, the words uttered express so much truth. Now, though in this case there is no na-

tural connexion between the signs and the things signified—between ideas or notions in the mind and articulate vocal sounds—yet it is obvious that, without a violent effort of the speaker to the contrary, they must always be in conformity with each other, because, in every language, there are words appropriated to the purpose of denoting every idea, and every relation of ideas, which can be expressed by that language; and in the mind of every man those ideas, relations of ideas, and their appropriate words, have been constantly associated or linked together from the time that he first learned to speak. So intimate is this association, and so impossible to be broken, that whoever will pay sufficient attention to the operations of his own mind, will find that he thinks as well as speaks in some language; and that in cogitation he runs over, silently and habitually, those sounds which in speaking he actually utters. Hence it is that hardly any man has written in perfect purity a language in which he has not been accustomed to think; and hence too, I believe, it is, that so many men of deep thinking have been remarked for the practice of speaking to themselves. If this be so, it is impossible that a man, without some effort, should ever speak any thing but truth; for the ideas of what he has seen or heard, &c., are not of his manufacture; they are generated in his mind by external objects, according to the established laws of nature; and, till they be effaced from his memory, they must always, by the law of association, which is one of those laws, make their appearance there with all their mutual relations, and in their appropriate dress. In the very act of learning to speak, we necessarily learn to speak the truth; for what I have called mental truth is impressed upon our minds by him who cannot err, and, were we not to employ words for the expression of that truth exactly as they are employed by those with whom we converse, our language (if language it could be called) would be unintelligible jargon; and we could neither declare our wants, nor ask relief with any hope of success. Children beginning to speak may indeed often utter untruths or nonsense without any motive, and merely from mistake; and this indeed they often do, because the ideas and words of children have neither been long nor closely linked together; but it is impossible that a man, however wicked, should habitually, and without motives, lie on ordinary occasions, unless the constituent principles of his nature have been totally altered; unless his brain has been disordered by disease; unless his ideas and notions have been disarranged; and all the associations which have taken place among them from his infancy have been dissolved, and quite contrary associations formed in their stead. We know indeed, by woeful experience, that immoral men occasionally utter falsehoods with a view to deceive. But in these cases they are influenced by some motive either of hope or of terror; the falsehood is always uttered with an effort; and so very strong is the association between words and ideas that the truth will at times break out in spite of all their endeavours to conceal it; so that the end or middle of a false narrative, if it be of any length, and include

a numbe. of particular events or incidents, is commonly inconsistent with the beginning. We entertain a suspicion of falsehood, when those who relate the same tale either palpably contradict each other, or agree in every minute circumstance, and speak throughout the very same language—when they are but few in number and of a doubtful character—when they have an interest in what they affirm or deny—when they deliver their testimony either with hesitation, or with superfluous and violent asseverations of its truth; because all these are circumstances which have been generally observed to accompany false witness. It is likewise with reluctance that we admit a narrative of events entirely different from every thing that we have hitherto seen or heard; because we may not be certain that the narrator is not under some influence to deceive us in matters concerning which we have nothing but his testimony on which to ground our judgment. But in every case, where the fact recorded is in itself possible, and attributed to a cause which we know to be adequate; where a competent number of witnesses had sufficient means of information, and were certainly under no inducement to deceive, testimony is complete evidence, however extraordinary the fact may be; because no fact, which is known to have had an adequate cause, can be so incredible, as that a number of men of sound understanding should act in a manner inconsistent with the fundamental principles of human nature, or be able, if so disposed, to dissolve every association which had been formed in the mind of each of them from his infancy, and form new ones, all agreeing exactly with one another, and yet all contrary to the truth.

‘If this reasoning be just, and if the testimony of the apostles to their own and their Master’s miracles be false, it follows undeniably, either that they concerted a consistent scheme of falsehood, and agreed to publish it at every hazard; or that God had dissolved all the associations, which had been formed in their minds, of ideas of sense with the words of language, and arbitrarily formed new associations all in exact conformity with each other, but all in direct contradiction to truth. One or other of these events must have taken place; because, upon the supposition of falsehood, there is no other alternative. But such dissolution and formation of associations of ideas with words, as is supposed in the latter event, is as great a deviation from the established laws of nature, or, in other words, as real a miracle, as the resurrection of a man from the dead; and, all real miracles being acknowledged to be equally great, either of these could have been performed only by a power equal to the performance of the other. Nor would the supposed voluntary agreement of the apostles, in such a scheme of falsehood as they are said to have published to the world, be an event less miraculous than the Divine interposition for the unworthy purpose implied in the former hypothesis. When they sat down to fabricate their pretended revelation, and to contrive a series of miracles, to which they were all to appeal for its truth, it is plain, since they proved successful in their daring enterprise, that they must have

clearly foreseen every possible circumstance in which they could be placed, and have prepared consistent answers to every question that could be put to them by their most inveterate and most enlightened enemies; by the statesman, the lawyer, the philosopher, and the priest. That such foreknowledge as this would have been miraculous will not surely be denied; since it forms the very attribute which we find it most difficult to allow even to God himself. It is not, however, the only miracle, which this supposition would compel us to admit. The very resolution of the apostles to propagate the belief of false miracles, in support of such a religion as that which is taught in the New Testament, would have been as wide a deviation from the laws of nature, and therefore as great a miracle, as the mind of man has ever conceived.

‘When they formed this design, either they must have hoped to succeed, or they must have been convinced that they should fail in their undertaking; and, in either case, they chose evil, and what they knew to be unmixed evil, for its own sake! They could not, if they foresaw that they should fail, look for any thing but that contempt, disgrace, and persecution, which were then the inevitable consequences of an unsuccessful endeavour to overthrow the established religion. Nor would their prospects be brighter on the supposition of their success. As they knew themselves to be false witnesses, and impious deceivers, they could have no hope beyond the grave; and, by determining to oppose all the religious systems, superstitions, and prejudices of the age in which they lived, they wilfully exposed themselves to inevitable misery in the present life, to insult and imprisonment, to stripes and death. Nor can it be alleged that they might look forward to power and affluence, when they should through sufferings have converted their countrymen; for, so desirous were they of obtaining nothing but misery as the end of their mission, that they made their own persecution a test of the truth of their doctrines. They introduced the Master, from whom they professed to have received those doctrines, as telling them that they were ‘sent forth as sheep in the midst of wolves; that they should be delivered up to councils, and scourged in synagogues; that they should be hated of all men for his name’s sake;’ that ‘the brother should deliver up the brother to death, and the father the child;’ and that ‘he who took not up his cross and followed him was not worthy of him.’ The very system of religion, therefore, which they invented and resolved to impose upon mankind, was so contrived that the worldly prosperity of its first preachers, and even their exemption from persecution, was incompatible with its success. Had these clear predictions of the author of that religion, under whom the apostles and evangelists acted only as ministers, not been verified, all mankind must have instantly perceived that their claim to inspiration was groundless, and that Christianity was a scandalous and impudent imposture. All this the apostles could not but foresee when they formed their plan for deluding the world. Whence it follows that, when they resolved to support their pretended revelation by an appeal

to forged miracles, they wilfully, and with their eyes open, exposed themselves to inevitable misery, whether they should succeed or fail in their enterprise; and that they concerted their measures in such a manner as not to admit a possibility of recompense to themselves, either in this life or in that which is to come. But if there be a law of nature, for the reality of which we have better evidence than we have for others, it is, 'that no man can choose misery for its own sake,' or make the acquisition of it the ultimate end of all his pursuits. The existence of other laws of nature we know by testimony and our own observation of the regularity of their effects. The existence of this law is made known to us not only by these means, but also by the still clearer and more conclusive evidence of every man's own consciousness. Thus, then, do miracles force themselves upon our assent in every possible view which we can take of this interesting subject.

1. *Of the Pentateuch.*—The Pentateuch consists of the five books of Moses. Some of the strongest arguments in support of the authenticity of the Pentateuch, and inspiration of the writer, have been already given. But we shall present two arguments of a different kind, which would be sufficient to prove at least the former of these conclusions, from the language and contents of the Mosaic writings, and from the testimony of the other books of Scripture.

From the contents and language of the Pentateuch there arises a very strong presumption that Moses was its author. The very mode of writing in the last four books discovers an author contemporary with the events which he relates; every description, both religious and political, is a proof that the writer was present at each scene; and the legislative and historical parts are so interwoven with each other that neither of them could have been written by a man who lived in a later age. Dr. Marsh justly observes, that the account given in the book of Exodus of the conduct of Pharaoh towards the children of Israel, is such as might be expected from a writer who was not only acquainted with the country at large, but had frequent access to the court of its sovereign; and the minute geographical description of the passage through Arabia is such as could have been given only by a man like Moses, who had spent forty years in the land of Midian. The language itself is a proof of its high antiquity, which appears partly from the great simplicity of the style, and partly from the use of archaisms or antiquated expressions, which in the days even of David and Solomon were obsolete. For instance *חַוִּי* ille, and *נֶגֶר* puer, which are used in both genders by no other writer than Moses. See Gen. xxiv. 14. 16. 28. 55. 57; xxxviii. 21. 25. But a strong argument, to show that the Pentateuch was written by a man born and educated in Egypt, is the use of Egyptian words; words which never were, nor ever could have been, used by a native of Palestine; and it is a remarkable circumstance that the very same thing which Moses had expressed by a word that is pure Egyptian, Isaiah, as might be expected from his birth and education, has expressed by a word that is purely Hebrew. For instance, *אָחַז*, written by the Seventy

ἄχαι, Gen. xli. 2, and *הַחַז*, written by the Seventy *ἄχαι* or *ἄβαι*. See La Croze *Lexicon Ægyptiacum*, art. AXI and ΘΗΒΙ. The same thing which Moses expressed by *אָחַז*, Gen. xli. 2; Isaiah (xix. 7) expresses by *עִרְרָה*, for the Seventy have translated both of these words by *ἄχαι*.

That Moses was the author of the Pentateuch is proved also from the evidence of testimony. We shall seek no authority but that of the succeeding sacred books themselves, which bear internal evidence that they were written in different ages, and therefore could not be forged, unless we were to adopt the monstrous opinion that there was a succession of impostors among the Jews who united together in the same fraud. The Jews were certainly best qualified to judge of the authenticity of their own books. They could judge of the truth of the facts recorded, and they could have no interest in adopting a forgery. Indeed, to suppose a whole nation combined in committing a forgery, and that this combination should continue for many hundred years, would be the most chimerical supposition that ever entered into the mind of man. Yet we must make this supposition, if we reject the historical facts of the Old Testament. No one will deny that the Pentateuch existed in the time of Christ and his apostles; for they not only mention it, but quote it. 'This we admit,' reply the advocates for the hypothesis which we are now combating; 'but you cannot therefore conclude that Moses was the author; for there is reason to believe it was composed by Ezra.' But, unfortunately for men of this opinion, both Ezra and Nehemiah ascribe the book of the law to Moses. See Ezra iii. 2; viii. 14; Neh. xiii. 1. 2. The Pentateuch was in the possession of the Samaritans before the time of Ezra. 3. It existed in the reign of Amaziah king of Judah, A. C. 839 years. 4. It was in public use in the reign of Jehosaphat, A. C. 912; for that virtuous prince appointed Levites and priests who taught in Judah, and had the book of the law of the Lord with them, and went about throughout all the cities of Judah and taught the people. 5. It is referred to by David in his dying admonitions to Solomon. He also makes many allusions to it in the Psalms, and sometimes quotes it. There remains therefore only one resource to those who contend that Moses was not the author, viz. that it was written in the period which elapsed between the age of Joshua and that of David. But the whole history of the Jews from their settlement in Canaan to the building of the temple pre-supposes that the book of the law was written by Moses. 6. We have satisfactory evidence that it existed in the time of Joshua. One passage may be quoted where this fact is stated. The Divine Being makes use of these words to Joshua: 'Only be thou strong, and very courageous, that thou mayest observe to do all according to the law which Moses my servant commanded thee. This book of the law shall not depart out of thy mouth,' &c. See Josh. i. 7, 8; viii. 31; xxiii. 6. To the foregoing demonstration objections may be stated. 'We will admit the force of your arguments, and grant that Moses actually wrote a work

called the book of the law; but how can we be certain that it was the very work which is now current under his name? And, unless you can show this to be at least probable, your whole evidence is of no value.' To illustrate the force or weakness of this objection, let us apply it to some ancient Greek author, and see whether a classical scholar would allow it to be of weight.

It is true that the Greek writers speak of Homer as an ancient and celebrated poet; it is true also that they have quoted from the works which they ascribe to him various passages that we find at present in the *Iliad* and *Odyssey*; yet still there is a possibility that the poems which were written by Homer, and those which we call the *Iliad* and *Odyssey*, were totally distinct productions. Now an advocate for Greek literature would reply to this objection, not with a serious answer, but with a smile of contempt; and would think it beneath him to silence an opponent who appeared to be deaf to the clearest conviction. But still more may be said in defence of Moses than in defence of Homer; for the writings of the latter were not deposited in any temple or sacred archive, to secure them from the devastations of time; whereas the copy of the book of the law, as written by Moses, was intrusted to the priests and the elders, preserved in the ark of the covenant, and read to the people every seventh year. Deut. xxxi. 9—11; 14—26. Sufficient care therefore was taken not only for the preservation of the original record, but that no spurious production should be substituted in its stead. And that no spurious production ever has been substituted in the stead of the original composition of Moses, appears from the evidence both of the Greek and the Samaritan Pentateuch. For as these agree with the Hebrew, except in some trifling variations (see London Polyglot, vol. vi. p. 19), to which every work is exposed by length of time, it is absolutely certain that the five books which we now ascribe to Moses are one and the same work with that which was translated into Greek in the time of the Ptolemies, and, what is of still greater importance, with that which existed in the time of Solomon. And as the Jews could have had no motive whatsoever, during that period which elapsed between the age of Joshua and that of Solomon, for substituting a spurious production instead of the original as written by Moses, and, even had they been inclined to attempt the imposture, would have been prevented by the care which had been taken by their lawgiver, we must conclude that our present Pentateuch is the very identical work that was delivered by Moses.

II. *Of the historical books of the Old Testament.*—The positive evidence being now produced, we shall endeavour to answer some particular objections that have been urged. Most of these occur in the book of GENESIS: we shall reserve them, therefore, for separate examination, and here only consider the objections peculiar to the four last books. They may be comprised under one head, viz. expressions and passages in these books which could not have been written by Moses. 1. The account of the death of Moses, in the last chapter of

Deuteronomy, we allow must have been added by some succeeding writer; but this can never prove that the book of Deuteronomy is spurious. What is more common among ourselves than to see an account of the life and death of an author subjoined to his works, without informing us by whom the narrative was written? 2. It has been objected that Moses always speaks of himself in the third person. This is the objection of foolish ignorance, and therefore scarcely deserves an answer. Such persons have never read Cæsar's Commentaries, where the author uniformly speaks of himself in the third person, as writers of the most correct taste will often do; who reflects on the absurdity of employing the pronoun of the first person in a work intended to be read long after his death. 3. As to the objection that in some places the text is defective, as in Exodus xv. 8, it is not directed against the author, but against some transcriber; for what is wanting in the Hebrew is inserted in the Samaritan text. 4. The only other objection that deserves notice is made from two passages. It is said in one place that the bed of Og is at Ramah to this day; and in another (Deut. iii. 14) 'Jair the son of Manasseh took all the country of Argob into the coasts of Geshuri and Maacathi, and called them after his own name, Bashan-havoth-jair, unto this day.' The last clause in both these passages could not have been written by Moses; but it was probably placed in the margin by some transcriber by way of explanation and was afterwards by mistake inserted in the text. Whoever doubts the truth of this assertion may have recourse to the MSS. of the Greek Testament, and he will find that the spurious additions in the texts of some MSS. are actually written in the margin of others.

That the Pentateuch, therefore, at least the four last books of it, was written by Moses, we have very satisfactory evidence; which, indeed, at the distance of 3000 years, is wonderful, and which cannot be affirmed of any profane history written at a much later period. But the book of Genesis was evidently not written by a person who was contemporary with the facts which he records; for it contains the history of 2369 years, a period comprehending almost twice as many years as all the rest of the historical books of the Old Testament put together. Moses has been acknowledged as the author of this book by all the ancient Jews and Christians; but it has been a matter of dispute from what source he derived his materials; some affirming that all the facts were revealed by inspiration, and others maintaining that he procured them from tradition.

Some, who pretend to be profound philosophers, have rejected many parts of the book of Genesis as fabulous and absurd; but it cannot be the wisdom of philosophy, but the vanity of ignorance, that could lead to such an opinion. In fact, the book of Genesis affords a key to many difficulties in philosophy, which cannot otherwise be explained. It has been supposed that the diversities among mankind prove that they are not descended from one pair; but it has been fully shown that all these diversities may be accounted for by natural causes. It is

been reckoned a great difficulty to explain how fossil shells were introduced into the bowels of the earth; but the deluge explains this fact better than all the romantic theories of philosophers. See DELUGE. It is impossible to account for the origin of such a variety of language in a more satisfactory manner than is done in the account of the confusion of tongues which took place at Babel. It would be no easy matter to show why the sea of Sodom is so different from every other sea on the globe which has yet been explored, if we had not possessed the scriptural account of the miraculous destruction of Sodom and Gomorrah. It is saturated with bitumen and salt, and contains few or no fishes. These are very singular facts, which have been fully established by late travellers. The book of Genesis, too, has been treated with contempt, because it makes the world less ancient than is necessary to support the theories of modern philosophers, and because it is difficult to reconcile the chronologies of several nations with the opinion that the world is not above 6000 or 7000 years old. The Chaldeans, in the time of Cicero, reckoned up 470,000 years. The Egyptians pretend that they have records extending 50,000 years back; and the Hindoos go beyond all bounds of probability, carrying back their chronology, according to Halhed, more than 7,000,000 of years.

An attempt was formerly made by M. Bailly, mayor of Paris, to reconcile these magnified calculations with the chronology of the Septuagint, which is justly preferred to the Hebrew. See SEPTUAGINT. He affirms that the Hindoos, as well as the Chaldeans and Egyptians, had years of arbitrary determination; as for instance months of fifteen days, and years of sixty days, or two months. A month is a night and a day of the patriarchs; a year is a night and a day of the gods; 4000 years of the gods are as many hundred years of men. By attention to such modes of computation, the age of the world will be found very nearly the same in the writings of Moses and in the calculations and traditions of the Brahmins. With these also we have a remarkable coincidence with the Persian chronology. Bailly has established these remarkable epochs from the creation to the deluge. The Septuagint gives 2256 years; the Chaldeans 2222; the Egyptians 2340; the Persians 2000; the Hindoos 2000; the Chinese 2300. The same author attempts to show the singular coincidence of the age of the world as given by four distinct and distantly situated people. The ancient Egyptians make it 5544 years; the Hindoos 5502; the Persians 5501; the Jews, according to Josephus, 5555.

Having made these remarks, to show that the facts recorded in Genesis are not inconsistent with truth, we shall now, by a few observations, confirm the evidence, from testimony, that Moses was the author, and answer the objections that seem strongest. There arises a great probability, from the book of Genesis itself, that the author lived near the time of Joseph; for, as we advance towards the end of that book, the facts gradually become more minute. The materials of the antediluvian history are very scanty. The

account of Abraham is more complete; but the history of Jacob and his family is still more fully detailed. This is indeed the case with every history. In the early part the relation is very short and general; but, when the historian approaches his own time, his materials accumulate. It is certain too that the book of Genesis must have been written before the rest of the Pentateuch; for the allusions in the last four books to the history of Abraham, of Isaac, and of Jacob, are very frequent. The simplicity of the style shows it to be one of the most ancient of the sacred books; and perhaps its similarity to the style of Moses would determine a critic to ascribe it to him. It will be allowed that no man was better qualified than Moses to compose the history of his ancestors. He was learned in all the wisdom of the Egyptians, the most enlightened nation of his time, and he had the best opportunities of obtaining accurate information. The short account of the antediluvian world could easily be remembered by Abraham, who might obtain it from Shem, who was his contemporary. To Shem it might be conveyed by Methuselah, who was 340 years old when Adam died. From Abraham to Moses, the interval was less than 400 years. The splendid promises made to that patriarch would certainly be carefully communicated to each generation, with the concomitant facts; and thus the history might be conveyed to Moses by the most distinguished persons, and through very few hands. The accounts respecting Jacob and his son Joseph might be given to Moses by his grandfather Kohath, who must have been born long before the descent to Egypt; and Kohath might have heard all the facts respecting Abraham and Isaac from Jacob himself. Thus we can easily point out how Moses might derive the materials of the book of Genesis, and especially of the last thirty-eight chapters, from the most authentic source.

But 1. It is objected that the author of the two first chapters of Genesis must have lived in Mesopotamia, as he discovers a knowledge of the rivers that watered paradise, of the cities of Babylon, Erech, Resen, and Calneh; of the gold of Pison; of the bdellium and onyx stone. But if he could not derive this knowledge from the wisdom of the Egyptians, which is far from being improbable, he might surely obtain it by tradition from Abraham, who was born and brought up beyond the Euphrates. 2. In Genesis xiv. 14 it is said, Abraham pursued the four confederate kings to Dan, yet that name was not given till after the conquest of Palestine. (Judges xviii. 22.) We answer this might be inserted by a transcriber: but such a supposition is not necessary; for, though we are told in the book of Judges that a city originally called Laish received then the name of Dan, this does not prove that Laish was the same city with the Dan which is mentioned in Genesis. The same answer may be given to the objection which is brought from Genesis xxxv. 21, where the tower of Edar is mentioned, which the objectors say was the name of a tower over one of the gates of Jerusalem. But the tower of Edar signifies the tower of the flocks, which in the

pastoral country of Canaan might be a very common name. 3. The most formidable objection perhaps is derived from these two passages, Gen. xii. 6:—'And the Canaanite was then in the land.' Gen. xxxvi. 31:—'These are the kings that reigned over the land of Edom, before there reigned any king over the children of Israel.' Now it is certain that neither of these passages could be written by Moses. We allow they were added by a later writer; but this circumstance cannot invalidate the evidence which has been already produced. It does not prove that Moses was not the author of the book of Genesis, but only that this book has received two additions or interpolations since his death. According to Rivet, our Saviour and his apostles have cited twenty-seven passages verbatim from the book of Genesis, and have made thirty-eight allusions to the sense.

The book of *EXODUS* contains the history of the Israelites for about 145 years. It gives an account of the slavery of the Israelites in Egypt; of the miracles by which they were delivered, of their passage through the Red Sea, and journey through the wilderness; of the solemn promulgation of the decalogue on Mount Sinai, and of the building and furniture of the Tabernacle. This book is cited by David, by Daniel, and other sacred writers. Twenty-five passages are quoted by our Saviour and his apostles in express words, and they make up nineteen allusions to the sense.

The book of *LEVITICUS* contains the history of the Israelites for one month. It consists chiefly of laws. Indeed, properly speaking, it is the code of the Jewish ceremonial and political laws. It describes the consecration of Aaron and his sons, the daring impiety and exemplary punishment of Nadab and Abihu. It contains also some predictions respecting the punishment of the Israelites in case of apostasy; and contains an assurance that every sixth year should produce abundance to support them during the seventh or sabbatical year. This book is quoted as the production of Moses in several books of Scripture.

The book of *NUMBERS* comprehends the history of the Israelites for about thirty-eight years, reckoning from the first day of the second month after their departure from Egypt. It contains an account of two numberings of the people; the first in the beginning of the second year of their emigration, the second in the plains of Moab towards the conclusion of their journey in the wilderness. It describes the ceremonies employed at the consecration of the tabernacle; gives an exact journal of the marches and encampments of the Israelites; relates the appointment of the seventy elders, the miraculous cure performed by the brazen serpent, and the misconduct of Moses when he was commanded to bring water from the rock. There is also added an account of the death of Aaron, of the conquest of Sihon and Og, and the story of Balaam, with his celebrated prophecy concerning the Messiah. The book of Numbers is quoted as the work of Moses in several parts of Scripture.

The book of *DEUTERONOMY* comprehends a period of about two months. It consists of an

interesting address to the Israelites, in which Moses recalls to their remembrance the many instances of divine favor which they had experienced, and reproaches them for their ingratitude. He lays before them, in a compendious form, the laws which he had formerly delivered, and makes some explanatory additions. This was the more necessary, because the Israelites, to whom they had been originally promulgated, and who had seen the miracles in Egypt, at the Red Sea, and Mount Sinai, had died in the wilderness. The divine origin of these laws, and the miracles by which they were sanctioned, must already have been well known to them; yet a solemn recapitulation of these by the man who had miraculously fed the then present generation from their infancy, who, by the lifting up of his hands, had procured them victory in the day of battle, and who was going to leave the world to give an account of his conduct to the God of Israel, could not but make a deep and lasting impression on the minds of all who heard him. He inculcates these laws by the most powerful motives. He presents before them the most animating rewards, and denounces the severest punishments to the rebellious. The prophecies of Moses towards the end of this book, concerning the fate of the Jews, their dispersions and calamities, the conquest of Jerusalem by the Romans, the miseries of the besieged, and the present state of the Jewish nation, cannot be read without astonishment. They are perspicuous and minute, and have been literally accomplished. This book is cited as the production of Moses by Christ and his apostles, Matt. iv. 4, John i. 45, &c.

The other historical books of the Old Testament are twelve in number, Joshua, Judges, Ruth, I. and II. Samuel, I. and II. Kings, I. and II. Chronicles, Ezra, Nehemiah, Esther. These, if considered distinctly from the Pentateuch, and the writings more properly styled prophetic, contain a compendium of the Jewish history from the death of Moses, A. M. 2552, to the reformation established by Nehemiah after the return from the captivity, A. M. 3595, comprehending a period of 1043 years.

To enable us to discover the authors of these books, we have no guide but conjecture, internal evidence, or the authority of the modern Jews. From the frequent references in Scripture, and from the testimony of Josephus, it appears that the Jews were in possession of many historical records which might have thrown much light upon this subject if they had been preserved. But during the calamities which befel that infatuated nation in their wars with the Romans, and the dispersion which followed, these writings have perished. But though we can produce no testimony more ancient than the age of our Saviour to authenticate the historical books, yet there are some facts respecting the mode of their preservation which entitle them to credit. The very circumstance itself, that the Jews have preserved them in the sacred volume to this day, while their other ancient books have been lost, is a proof that they considered them as the genuine records of their nation. Josephus, whose authority is of great importance, informs

us, in his treatise against Apion, that it was the peculiar province of the prophets and priests to commit to writing the annals of the nation, and to preserve them to posterity. That these might be faithfully preserved, the sacerdotal function was made hereditary, and the greatest care was observed to prevent intermarriages either with foreigners or with the other tribes. No man could officiate as a priest who could not prove his descent in a right line by unquestionable evidence. Ezra ii. 61, 62. Registers were kept in Jerusalem, which at the end of every war were regularly revised by the surviving priests; and new ones were then composed. As a proof that this has been faithfully performed, Josephus adds that the names of all the Jewish priests, in an uninterrupted succession from father to son, had been registered for 2000 years; that is, from the time of Aaron to the age of Josephus. The national records were not allowed to be written by any man who might think himself fit for the office; and, if the priest falsified them, he was excluded from the altar and deposed from his office. Thus, we are assured, the Jewish records were committed to the charge of the priests; and, as they may be considered as the same family from Aaron to the Babylonish captivity and downwards, the same credit is due to them that would be due to family records, which by antiquarians are esteemed the most authentic sources of information.

Of the twenty-two books which Josephus reckoned himself bound to believe, the historical books from the death of Moses to the reign of Artaxerxes, he informs us, were written by contemporary prophets. It appears, then, that the prophets were the composers, and the priests the hereditary keepers of the national records. Thus, the best provision possible was made that they should be written accurately, and be preserved uncorrupted. The principal office of these prophets was to instruct the people in their duty to God, and occasionally to communicate the predictions of future events. For this purpose they were educated in the schools of the prophets, or in academies where sacred learning was taught. The prophets were therefore the learned men of their time, and consequently were best qualified for the office of historians. It may be objected that the prophets, in concert with the priests, might have forged any writings they pleased. But, before we suspect that they have done so in the historical books of the Old Testament, we must find out some motive which could induce them to commit so daring a crime. But this is impossible. No encomiums are made either upon the prophets or the priests; no adulation to the reigning monarch appears, nor is the favor of the populace courted. The faults of all ranks are delineated without reserve. Indeed there is no history extant that has more the appearance of impartiality. We are presented with a simple detail of facts, and are left to discover the motives and intentions of the several characters; and, when a character is drawn, it is done in a few words, without exaggerating the vices or amplifying the virtues of the person.

It is of no real consequence, therefore, whether we can ascertain the authors of the different

books or not. From Josephus we know that they existed in his time; and, from his account of the manner in which they were preserved, we are assured they were not in danger of being corrupted. They existed also when the Septuagint translation was made. Frequent references are made to them in the writings of later prophets; sometimes the same facts are related in detail. In short, there is such a coincidence between the historical books and the writings of those prophets who were contemporary, that it is impossible to suppose the latter true without receiving the former. Indeed, to suppose that the Jews could have received and preserved with such care for so many hundred years false records, which it must have been in the power of every person to disprove, and which at the same time do so little credit to the character of their nation, is to suppose one of the greatest absurdities in the world: it is to suppose that a whole nation could act contrary to all those principles which have always predominated in the human mind, and which must always predominate till human nature undergo a total revolution.

The book which immediately follows the Pentateuch has been generally ascribed to Joshua, the successor of Moses. It contains, however, some things which must have been inserted after the death of Joshua. There is some accidental derangement in the order of the chapters of this book which was probably occasioned by the ancient mode of fixing together a number of rolls. If chronologically placed, they should be read thus, first chapter to the tenth verse; then the second chapter; then from the tenth verse to the end of the first chapter; afterwards should follow the sixth, seventh, eighth, ninth, tenth, and eleventh chapters; then the twenty-second; and lastly the twelfth and thirteenth chapters to the twenty-fourth verse of the latter. The facts mentioned in this book are referred to by many of the sacred writers. See 1 Chron. ii. 7, xii. 15; Psal. cxiv. 3; Isa. xxviii. 22; Acts vii. 45; Heb. xi. 31, xiii. 5; James ii. 25. 28. In the book of Kings, xvi. 34, the words of Joshua are said to be the words of God. See JOSHUA.

By whom the book of JUDGES was written is uncertain; but, as it contains the history of the Jewish republic for 317 years, the materials must have been furnished by different persons. The book, however, seems to be the composition of one individual who lived in the reign of Saul, and before the accession of David: for it is said, in chap. i. ver. 21, that the Jebusites were still in Jerusalem; who, we know, were dispossessed of that city early in the reign of David, 2 Sam. v. 6. 8. We have reason, therefore, to ascribe this book to Samuel. The history of this book may be divided into two parts; the first contains an account of the Judges from Othniel to Sampson, ending at the sixteenth chapter. The second part relates several remarkable transactions which occurred soon after the death of Joshua; but are thrown to the end of the book, that they might not interrupt the course of the history. See JUDGES.

The book of RUTH is a kind of supplement to the book of Judges, and an introduction to

the history of David, as it is related in the books of Samuel. Since the genealogy which it contains descends to David, it must have been written after the birth of that prince, but not at any considerable time after it; for the history of Boaz and Ruth, the great-grandfather and great-grandmother of David, could not be remembered above two or three generations. As the elder brothers of David and their sons are omitted, and none of his own children are mentioned in the genealogy, it is evident that the book was composed in honor of the Hebrew monarch, after he was anointed king by Samuel, and before any of his children were born; and consequently in the reign of Saul. The Jews ascribe it to Samuel; and indeed there is no person of that age to whom it may be attributed with more propriety. See SAMUEL. We are informed (1 Sam. x. 25) that Samuel was a writer, and are assured that no person in the reign of Saul was so well acquainted with the splendid prospects of David as the prophet Samuel.

The Greeks denominate the books of SAMUEL, which follow next in order, The books of Kingdoms; and the Latins, The books of Kings I. and II. Anciently there were but two books of Kings; the first was the two books of Samuel, and the second was what we now call the two books of Kings. According to the present division, these two books are four, viz. the first and second books of Samuel, and the first and second books of Kings. Concerning the author of the two books of Samuel there are different opinions. Some think that Samuel wrote only twenty or twenty-four chapters of the first book, and that the history was continued by Nathan and Gad. This opinion they ground on the following passage in 1 Chron. xxix. 29: 'Now the acts of David the king, first and last, behold they are written in the book of Samuel the seer, and in the book of Nathan the prophet, and Gad the seer.' Others think they were compiled by Ezra from ancient records; but it is evident that the books of Samuel were written before the books of Kings and Chronicles; for in the latter many circumstances are taken from the former. The first book carries down the history of the Israelites from the birth of Samuel to the fatal battle of Gilboa, comprehending a period of about eighty years. The second relates the history of David, from his succession to the throne of Israel, till within a year or two of his death, containing forty years. There are two beautiful passages in these books, which every man of sentiment and taste must feel and admire, the lamentation or elegy on Saul and Jonathan, and the parable of Nathan. The impartiality of the historian is fully attested, by the candor and freedom with which the actions of Saul and David are related. There are some remarks interspersed, which were probably added by Ezra.

When the two books of KINGS were written, or by whom they were compiled, is uncertain. Some have supposed that David, Solomon, and Hezekiah, wrote the history of their own times. But this seems not probable, as their crimes and vices are so particularly recorded. Others have been of opinion that the prophets, viz. Gad, Nathan, Isaiah, and Jeremiah, wrote each the his-

tory of the reign in which he lived, which appears much more probable. But it is generally believed that Ezra wrote these two books, and published them in the form in which we have them at present. There can be no doubt but the prophets drew up the lives of the kings who reigned in their times; for the names and writings of those prophets are frequently mentioned, and cited. Still, however, it is evident that the two books of Kings are but an abridgment of a larger work, the substance of which is contained in the books before us. In support of the opinion that Ezra is the author of these books, it is said that in the time of the penman, the ten tribes were captives in Assyria, whither they had been carried as a punishment for their sins: That in the second of these books the author makes some reflections on the calamities of Israel and Judah, which demonstrate that he lived after that event. But to this it is objected that the author of these books expresses himself throughout as a contemporary, and as one would have done who had been an eye and ear witness of what he related. To this objection it is answered that Ezra compiled these books from the prophetic writings which he had in his possession; that he copied them exactly, narrating the facts in order as they happened, and interspersed in his history some reflections and remarks arising from the subjects which he handled. The first book comprises a period of 126 years, from the death of David to that of Jehoshaphat. The second book records the transactions of the succeeding kings of Judah and Israel for about 300 years, from the death of Jehoshaphat to the destruction of Jerusalem and the temple, A. M. 3416, A. C. 588.

The Hebrews style the two books of CHRONICLES, Deberi Imim, i. e. Words of days, journals or diaries, in allusion to those ancient journals which appear to have been kept among the Jews. The Greeks call them *Παραλειπομένα*, Paralipomena, which signifies things omitted; as if these two books were a kind of supplement, to inform us of what had been omitted or too much abridged in the books of Kings. The two books of Chronicles contain indeed several particulars which are not to be met with in the other books of Scripture: but it is not therefore to be supposed that they are the records of the kings of Judah and Israel, so often referred to in the books of Kings. Those ancient registers were apparently much more copious than these books; and the compiler of the books of Chronicles often refers to them, and makes extracts from them.

Some suppose that the author of these two books was the same with that of the two books of Kings. The Jews say that they were written by Ezra, after the return from the captivity, assisted by Zechariah and Haggai, who were then alive. But events are mentioned in them of so late a date as to show that he could not have written them in their present form; and there is another objection to his being their author, which is little less forcible: between the books of Kings and Chronicles there is a great number of variations both in dates and facts, which could not have happened if Ezra had been the author

of them, or indeed if they had been the work of any one person. The books of Chronicles are not to be considered merely as an abridgment of former histories with some useful additions, but as books written with a particular view; which seems to have been to furnish a genealogical register of the twelve tribes, deduced from the earliest times; to point out those distinctions which were necessary to discriminate the mixed multitude that returned from Babylon; to ascertain the lineage of Judah; and to re-establish on their ancient footing the pretensions and functions of each individual tribe.

The books of EZRA and NEHEMIAH are attributed by the ancients to the former of these prophets; and they called them the first and second books of Esdras; which title is still kept up by the Latin church. It is indeed highly probable that the former of these books, which comprises the history of the Jews, from the time that Cyrus made the decree for their return until the twentieth year of Artaxerxes Longimanus (which was about 100 years, or as others think seventy-nine years), was all composed by Ezra, except the first six chapters, which contain an account of the first return of the Jews upon the decree of Cyrus; whereas Ezra did not return till the time of Artaxerxes. It is of this second return therefore that he writes the account; and adding it to the other, which he found ready composed to his hand, he made it a complete history of the Jewish restoration. This book is written in Chaldee from chap. iv. 8 to chap. vii. 27. As this part of the work chiefly contains letters, conversations, and decrees expressed in that language, the fidelity of the historian has probably induced him to take down the very words which were used. The people, too, had been accustomed to the Chaldee during the captivity, and probably understood it better than Hebrew; for

it appears from Nehemiah's account, chap. viii. 2. 8, that all could not understand the law.

The book of NEHEMIAH bears, in the Latin bibles, the title of the second book of Esdras; the ancient canons likewise gave it the same name, because, perhaps, it was considered as a sequel to the book of Ezra. In the Hebrew Bibles it has the name of Nehemiah prefixed to it; which name is retained in the English Bible. But, though that chief is by the writer of the second book of Maccabees affirmed to have been the author of it, there cannot, we think, be a doubt, but that either it was written at a later period, or had additions made to it after Nehemiah's death. With the books of Nehemiah and Esther the history of the Old Testament concludes. This is supposed to have taken place about A. M. 3574. A. C. 434. But Prideaux with more probability has fixed it at A. M. 3595. See NEHEMIAH.

It is uncertain who was the author of the book of ESTHER. Clement of Alexandria, and many commentators, have ascribed it to Mordecai; and the book itself seems to favor this opinion; for we are told, in chap. ix. 20, that 'Mordecai wrote these things.' Others have supposed that Ezra was the author; but the more probable opinion of the Talmudists is that the great synagogue (See SYNAGOGUE), to perpetuate the memory of the deliverance of the Jews from the conspiracy of Haman, and to account for the origin of the feast of Purim, ordered this book to be composed very likely of materials left by Mordecai, and afterwards approved and admitted it into the sacred canon. The time when the events which it relates happened, is supposed by some to have been in the reign of Artaxerxes Longimanus, and by others in that of Darius the son of Hystaspes, called by the sacred penman Ahasuerus. See AHASUERUS.

The following TABLE exhibits the Contemporary Reigns of the respective Kings of JUDAH and ISRAEL, and will assist in reading the Historical Books.

A. M.	Judah.	Israel.	Ante A. D.
3029	Rehoboam	Jeroboam	975
3046	Abijam	_____	958
3049	Asa	_____	955
3050	_____	Nadab	954
3051	_____	Baasha	953
3074	_____	Elah	930
3075	_____	Zimri	929
_____	_____	Omri	_____
3086	_____	Ahab	918
3090	Jehoshaphat	_____	914
3106	_____	Ahaziah	898
3108	_____	Jehoram, or Joram	896
3112	Jehoram, or Joram	_____	892
3119	Ahaziah	_____	885
3120	Athaliah	Jehu	884
3126	Joash	_____	878
3148	_____	Jehoahaz	856
3163	_____	Jehoash, or Joash	841
3165	Amaziah	_____	839
3179	_____	Jeroboam II.	825
3194	Azariah, or Uzziah	_____	810
3231	_____	Zachariah	773
3232	_____	Shallum	772
_____	_____	Menahem	_____
3243	_____	Pekahiah	761

A. M.	Judah.	Israel.	Ante A. D.
3215	_____	Pekan	759
3246	Jotham	_____	758
3262	Ahaz	_____	742
3264	_____	First captivity of Israel by Tiglath Pileser	740
_____	_____	An interregnum	_____
3254	_____	Hoshea	730
3258	Hezekiah	_____	726
3283	_____	Second captivity, by Shalmaneser:	721
3306	Manasseh	_____	698
3326	_____	Third captivity, by Esar-haddon	678
3361	Amon	_____	643
3363	Josiah	_____	531
3394	Jehoahaz	_____	610
_____	Jehoiakim	_____	_____
3398	First captivity of Judah	_____	606
3405	Jehoiachin, Coniah, or Jeconiah	_____	599
_____	Second Captivity of Judah	_____	_____
_____	Zedekiah	_____	_____
3416	Third and final captivity	_____	588

III.—*Of the Hagiographa.*—The third general division of the books of the Old Testament, among the Jews, according to Josephus, was the Hagiographa, or Holy Writings; which, however, are generally ranked second in order in all modern bibles. This comprehends the books of Job, Psalms, Proverbs, Ecclesiastes, and the Song of Solomon.

Concerning the author of the book of Job, there are many different opinions. Some have supposed that Job himself wrote it in Syriac or Arabic, and that it was afterwards translated by Moses. Others have thought that Elihu wrote it; and by others it is ascribed to Moses, to Solomon, to Isaiah, and to Ezra. To give even an abridgment of the arguments brought in support of these various opinions would fill a volume, and at last leave the reader in uncertainty. The most able summary of these opinions is to be found in the work of Dr. M. Good on Job. The writer of this article is decidedly of opinion, that Elihu was the author. He is the only one of Job's four friends who incurred no reproof. He listened with attention to them all, and at last delivered his opinion; and it is therefore highly probable, that he drew up the narrative of the whole. See ELIHU; and Job, xxxii. 15, 16, where he seems to speak of himself as the writer.

The book of Job, by whomsoever it was written, has been always esteemed a portion of canonical scripture, and is one of the most sublime compositions in the sacred volume. It appears to stand single and unparalleled in the sacred volume, having apparently little connexion with the other writings of the Hebrews, and no relation whatever to the affairs of the Israelites. The scene is laid in Idumea; the history of an inhabitant of that country is the basis of the narrative; the characters who speak are Idumeans, or at least Arabians of the adjacent country, all originally of the race of Abraham. The language is pure Hebrew, although the author appears to be an Idumean; for it is not improbable that all the posterity of Abraham, Israelites, Idumeans, and Arabians, whether of the family of Sarah, Keturah, or Ishmael, spoke for a considerable length of time a common language. That the Idumeans, however, and the Temanites in

particular, were eminent for the reputation of wisdom, appears by the testimony of the prophets Jeremiah and Obadiah. (Jer. xlix. 7, Ob. 8.) Baruch also particularly mentions them among 'the authors (or expounders) of fables, and searchers out of understanding.' Chap. iii. 22, 23.

The principal personage in this poem is Job; and in his character is meant to be exhibited (as far as is consistent with human infirmity) an example of perfect virtue. This is intimated in the introduction, but is still more eminently displayed in his actions and sentiments. He is holy, devout, and most piously and reverently impressed with the sacred awe of his divine Creator; he is also upright, and conscious of his own integrity; he is patient of evil, and yet very remote from that insensibility, or rather stupidity, to which the Stoics pretended. Oppressed, therefore, with unparalleled misfortunes, he laments his misery, and even wishes a release by death; in other words, he obeys, and gives place to the dictates of nature. Irritated, however, by the unjust insinuations and the severe reproaches of his pretended friends, he is more vehemently exasperated, and his too great confidence in his own righteousness leads him to expostulate with God in terms scarcely consistent with piety and strict decorum.

The first speech of Job, though it bursts forth with all the vehemence of passion, consists wholly of complaint, 'the words and sentiments of a despairing person empty as the wind;' which is indeed the apology that he immediately makes for his conduct; intimating that he is far from presuming to plead with God, far from daring to call in question the divine decrees, or even to mention his own innocence in the presence of his all-just Creator; nor is there any good reason for the censure which has been passed by some commentators upon this passage. The poet seems, with great judgment and ingenuity, to have performed in this what the nature of his work required. He has depicted the affliction and anguish of Job, as flowing from his wounded heart in a manner so agreeable to human nature (and certainly so far venial) that it may be truly said, 'in all this Job sinned not with his lips.' It is, nevertheless, embellished by such affecting ima-

gery, and inspired with such a warmth and force of sentiment, that we find it afforded ample scope for calumny; nor did the unkind witnesses of his sufferings permit so fair an opportunity to escape. The occasion is eagerly embraced by Eliphaz to rebuke the impatience of Job; and, not satisfied with this, he proceeds to accuse him in direct terms of wanting fortitude, and obliquely to insinuate something of a deeper dye. Though deeply hurt with the coarse reproaches of Eliphaz; still, however, when Job afterwards complains of the severity of God, he cautiously refrains from violent expostulations with his Creator, and, contented with the simple expression of affliction, he humbly confesses himself a sinner. Hence it is evident that those vehement attestations of his innocence, those murmurs against the divine Providence, which his tottering virtue afterwards permits, are to be considered merely as the consequences of momentary passion, and not as the ordinary effects of his settled character or manner.

The three friends are exactly such characters as the nature of the poem required. They are severe, irritable, malignant censors, readily, and with apparent satisfaction, deviating from the purposes of consolation into reproof and contumely. Even from the very first they manifest this evil propensity, and indicate what is to be expected from them.

The lenity and moderation of Elihu afford a beautiful contrast to the intemperance and asperity of the other three. He is pious, mild, and equitable; equally free from adulation and severity; and endowed with singular wisdom, which he attributes entirely to the inspiration of God; and his modesty, moderation, and wisdom, are the more entitled to commendation when we consider his youth. As the characters of his detractors were in all respects calculated to inflame the mind of Job, that of this arbitrator is admirably adapted to sooth and compose it: to this point the whole drift of the argument tends, and on this the very purport of it seems to depend.

Another circumstance deserving particular attention, in a poem of this kind, is the sentiment; which must be agreeable to the subject, and embellished with proper expression. It is by Aristotle enumerated among the essentials of a dramatic poem; not indeed as peculiar to that species of poetry, but as common, and of the greatest importance to all. Manners or character are essential only to that poetry in which living persons are introduced; and all such poems must afford an exact representation of human manners; but sentiment is essential to every poem, indeed to every composition whatever. It respects both persons and things. As far as it regards persons, it is particularly concerned in the delineation of the manners and passions; and those instances to which we have just been adverting are sentiments expressive of manners.

The poem of Job abounds chiefly in the more vehement passions, grief and anger, indignation and violent contention. It is adapted in every respect to the incitement of terror; and is universally animated with the true spirit of sublimity. It is, however, not wanting in the gentler affec-

tions. The whole abounds with the most beautiful imagery, and is a most perfect specimen of the elegiac. His grief becomes fervent; but is at the same time soft and querimonious. It is unnecessary to quote instances. The book is in every body's hands.

The dignity of the style is answerable to that of the subject; its force and energy to the greatness of those passions which it describes; and, as this production excels all the other remains of the Hebrew poetry in economy and arrangement, so it yields to none in sublimity of style, and in every grace and excellence of composition. Among the principal of these, may be accounted the accurate and perfectly poetical conformation of the sentences, which is indeed generally most observable in the most ancient of the poetical compositions of the Hebrews. Here, however, as is natural and proper in a poem of so great length and sublimity, the writer's skill is displayed in the proper adjustment of the period, and in the accurate distribution of the members, rather than in the antithesis of words, or in any labored adaptation of the parallelisms.

The chief doctrines of the patriarchal religion, collected from different parts of this poem by Drs. Hales and Good, are as follow:—

1. The creation of the world by one Supreme and Eternal Intelligence. See c. xxxviii.—xli.

2. Its regulation by his perpetual and superintending providence. See c. i. 9—21; ii. 10; v. 8—27; ix. 4—13.

3. The intentions of his providence carried into effect by the ministrations of a heavenly hierarchy. See c. i. 6, 7; iii. 18, 19; v. 1.; xxxiii. 22, 23.

4. The heavenly hierarchy, composed of various ranks and orders, possessing different names, dignities, and offices. As obelim, servants; malachim, angels; melizim, intercessors; meritim, destinies or destroyers; alep, the chiliad or thousand; kedoshim, sancti, the heavenly saints or hosts generally. See c. iv. 18; xxxiii. 22, 23; v. 2; xv. 15.

5. An apostasy, or defection, in some rank or order of these powers (c. iv. 18; xv. 15), of which Satan seems to have been one, and perhaps chief, c. i. 6—12; ii. 2—7.

6. The good and evil powers or principles equally formed by the Creator, and hence equally denominated 'Sons of God,' both of them employed by him in the administration of his providence; and both amenable to him at stated courts, held for the purpose of receiving an account of their respective missions. See c. i. 6, 7; ii. 1.

7. A day of future resurrection, judgment, and retribution to all mankind. See c. xiv. 13—15; xix. 25—29; xxi. 30; xxxi. 14.

8. The propitiation of the Creator, in the case of human transgressions, by sacrifices (c. i. 5, xlii. 8), and the mediation and intercession of a righteous person. See c. xlii. 8, 9.

9. The idolatrous worship of the heavenly bodies, a judicial offence, to be punished by the judge. See c. xxxi. 26—28.

10. The innate corruption of man; or what is generally termed 'original sin.' See c. xiv. 4 xv. 14—16; xxxv. 4.

Mr. Good has remarked that nothing can be more unfortunate for this most excellent composition than its division into chapters, and especially such a division as that in common use; in which, not only the unity of the general subject, but in many instances that of a single paragraph, or even of a single clause, is completely broken in upon and destroyed. Various are the divisions which have been adopted. Dr. Hales, who excludes the exordium and conclusion, divides it into five parts; but Dr. Good, who justly remarks that these are requisite to the unity of the composition, divides it into six. We have then

1. History of Job's character and trials (c. i.—iii.) 2. First series of conversations or controversy—Eliphaz's address (c. iv. v.); Job's answer (c. vi. vii.); Bildad's address (c. viii.); Job's answer (c. ix. x.); Zophar's address (c. xi.); Job's answer (c. xii.—xiv.) 3. Second series of controversy—Eliphaz's address (c. xv.); Job's answer (c. xvi. xvii.); Bildad's address (c. xviii.); Job's answer (c. xix.); Zophar's address (c. xx.); Job's answer (c. xxi.). 4. Third series of controversy—Eliphaz's address (c. xxii.); Job's answer (c. xxiii. xxiv.); Bildad's address (c. xxv.); Job's answer (c. xxvi.—xxxi.). 5. Elihu's four speeches to Job (c. xxxii.—xxxvii.). 6. Jehovah's first and second address to Job, his humiliation, and final prosperity, c. xxxviii.—xlii.

The word PSALMS is a Greek term, and signifies songs. The Hebrews call it **ספר תהלים**, *Sefer Tehellim*, that is, the Book of Praises; and in the Gospel it is styled the Book of Psalms.

veneration has always been paid to this collection of divine songs. The Christian church has, from the beginning, made them a principal part of her holy services; and in the primitive times it was almost a general rule that every bishop, presbyter, and religious person, should have the psalter by heart.

Many learned fathers, and modern writers, have maintained that David was the author of them all. Several are of a different opinion, and insist that David only wrote seventy-two of them, and that those without titles are to be ascribed to the authors of the preceding psalms, whose names are affixed to them. (See DAVID, ASAPH, &c.) Those who suppose that David alone was the author, contend that in the New Testament, and in the language of the church universal, they are expressly called the *Psalms of David*. That David was the principal author of these hymns, is universally acknowledged, and therefore the whole collection may properly enough go under his name; but that he wrote them all is a palpable mistake. Nothing certain can be gathered from the titles of the psalms; for, although unquestionably very ancient, yet authors are not agreed as to their authority, and they differ as much about their signification. The Hebrew doctors generally agree that the ninety-second psalm was composed by Adam: an opinion which, for many reasons, we are not inclined to adopt. There seems, however, to be no doubt but that

some of them were written by Moses; that Solomon was the author of the forty-ninth; and that others were occasioned by events long posterior to the flourishing era of the kingdom of Judah. The 137th particularly is one of those which mentions the captivity of Babylon.

Josephus, and most of the ancient writers, assert that the Psalms were composed in numbers: little, however, respecting the nature and principles of the Hebrew versification is known. There existed a certain kind of poetry among the Hebrews, principally intended, it should seem, for the assistance of the memory; in which, when there was little connexion between the sentiments, a sort of order or method was preserved, by the initial letters of each line or stanza following the order of the alphabet. Of this there are several examples extant among the sacred poems (Psalms xxv., xxxiv., xxxvii., cxi., cxii., cxix., cxlv.; Prov. xxxi., from the tenth verse to the end; the whole of the Lamentations of Jeremiah except the last chapter); and in these examples the verses are so exactly marked and defined that it is impossible to mistake them for prose; and particularly if we attentively consider the verses, and compare them with one another, since they are in general so regularly accommodated, that word answers to word, and almost syllable to syllable. The Hebrew poetry has likewise another property altogether peculiar to metrical composition. It admits foreign words, and certain particles which seldom occur in prose composition, and thus forms a distinct poetical dialect. One or two of the peculiarities also of the Hebrew versification are very observable in those poems in which the verses are defined by the initial letters. The first is that the verses are very unequal in length; the shortest consisting of six or seven syllables; the longest extending to about twice that number: the same poem is, however, generally continued throughout in verses not very unequal to each other. The close of the verse generally falls where the members of the sentences are divided. The ingenious Dr. Lowth has, however, with great acuteness, examined the peculiarities of Hebrew poetry, and has arranged them under general divisions. The correspondence of one verse or line with another he calls parallelism. When a proposition is delivered, and a second is subjoined to it, equivalent or contrasted with it in sense, or similar to it in the form of grammatical construction, these he calls parallel lines; and the words or phrases answering one to another in the corresponding lines, parallel terms. Parallel lines he reduces to three sorts; parallels synonymous, parallels antithetic, and parallels synthetic. For examples we refer to his work. The following arrangement of the Book of Psalms will be found useful in reading them. It is from the Scripture Magazine, vol. iii., but chiefly extracted from Mr. Townsend, the able author of a Chronological Arrangement of the Old Testament.

Numbers.	Authors.	Probable Occasions.	Connexions.	B. C.
88.	Heman.	Affliction of Israel in Egypt.	Exod. ii. 25.	1531
90.	Moses.	Shortening of man's life.	Numb xiv. 45.	1489
9.	David.	Victory over Goliath.	1 Sam. xviii. 4.	1063
11.	. . .	Advised to flee to the mountains.	— xix. 3.	1062
59.	. . .	Saul's soldiers surrounding the town.	— 17.	—
56.	. . .	With Philistines at Gath.	— xxi. 15.	—
34.	. . .	Leaving the city of Gath.	—	—
142.	. . .	In the cave of Adullam.	— xxii. 1.	—
17.	. . .	Priests murdered by Doeg.	— 19.	—
52. 109. 35. 140.	. . .	Persecution by Doeg.	—	—
64. 31.	. . .	Persecution by Saul.	— xxiii. 12.	1061
54.	. . .	Treachery of the Ziphites.	— 23.	—
57. 58.	. . .	Refusal to kill Saul.	— xxiv. 22.	—
63.	. . .	Wilderness of Engedi.	—	—
141.	. . .	Driven out of Judea.	— xxvii. 1.	1058
139.	. . .	King of all Israel.	1 Chron. xii. 4.	1048
68.	. . .	First removal of the Ark.	2 Sam. vi. 11.	1042
132.	. . .	Second removal of the Ark.	1 Chron. xv. 4.	—
105. 106. 96.	. . .	Ark taken from Obed-Edom's.	1 Chron. xvi. 43.	—
2. 45. 22. 16. 118. 110.	. . .	Nathan's prophetic address.	— xvii. 27.	—
60. 108.	. . .	Conquest of Edom by Joab.	1 Kings xi. 20.	1040
20. 21.	. . .	War with Ammonites and Syrians.	2 Sam. x. 19.	1036
51.	. . .	Confession of adultery and murder.	— xii. 15.	1034
32. 33. 103.	. . .	Pardon and thanksgiving.	—	—
3.	. . .	His flight from Absalom.	— xv. 29.	1023
7.	. . .	The reproaches of Shimei.	— xvi. 14.	—
42. 43. 55. 4. 5. 62. 143. } 144. 70. 71. . . . }	. . .	By the Jordan, from Absalom.	— xvii. 29.	—
18.	. . .	Conclusion of his wars.	— xxii. 51.	1019
30.	. . .	Dedication of Araunah's threshing floor.	1 Chro. xxi. 30.	1017
91.	. . .	After his advice to Solomon.	— xxviii. 10.	1015
145.	. . .	A review of his past life.	—	—
40. 41. 61. 65. 69. 78.	. . .	Dates and occasions unknown.	— xxviii. 21.	—
6. 8. 19. 12. 23. 24. 28. 29. 38 } 39. 86. 95. 101. 104. 120. } 121. 122. 124. 131. 133. }	. . .	At some periods, after his accession.	—	—
72.	. . .	The Coronation of Solomon.	— xxix. 19.	—
47. 97. 98. 99. 100.	Solomon.	Ark removed into the Temple.	2 Chro. vii. 10.	1004
135. 136.	. . .	Dedication of Solomon's Temple.	—	—
82. 115. 46.	Asaph and others.	The reign of Jehoshaphat.	— xx. 26.	896
44.	Hezekiah.	Message of Rabshakeh.	2 Kings xix. 7.	710
73. 75. 76.	Asaph.	Destruction of Sennacherib's army.	— 19.	—
79. 74. 83. 94.	. . .	Burning of the Temple at Jerusalem.	Jer. xxxix. 10.	588
137. 130. 80. 77. 37. 67. 49 } 53. 50. 10. 13. 14. 15. 25. } 26. 27. 36. 89. 92. 93. 123 }	Asaph, Ethan, and others.	During the Babylonian Captivity.	Dan. vii. 28.	541—539
102.	Daniel.	Near the close of that Captivity.	Dan. ix. 27.	538
126. 85.	Sons of Korah.	Decree for restoring the Jews.	Ezra i. 4.	536
107. 87. 111. 112. 113. } 114. 116. 117. 125. 127. } 128. 134. . . . }	Various.	Israel's return from the Captivity.	— iii. 7.	—
84. 66	Sons of Korah.	Foundation of second Temple.	— 13.	535
129.	Ezra or Nehem.	Opposition of the Samaritans.	— iv. 24.	534
138.	Haggai or Zech.	Rebuilding of the Temple.	— vi. 13.	519
48. 81. 146. 147. 148. 149. } 150. }	Various.	Dedication of the second Temple.	Zech. viii. 23.	—
1 and 119.	Ezra.	Manuals of devotion.	Nehem. xiii. 3.	444

The book of PROVERBS has always been accounted canonical. The Hebrew title of it is מִשְׁלֵי, Mishli, which signifies similitudes. It has always been ascribed to Solomon, whose name it bears, though some have doubted whether he really was the author of every one of the maxims which it contains. Those in chapter xxx. are indeed called the words of Agur, the son of Jakeh, and the title of the thirty-first or last chapter is the words of king Lemuel. It seems certain that the collection called the Proverbs of Solomon was digested in the order in which we now have it by different hands; but it is not, therefore, to be concluded that they are not the work of Solomon. Several persons might have made collections of them: Hezekiah, among others, is mentioned c. xxv. Agur and Ezra might have done the same. From these several collections the work was compiled which we have now in our hands.

The book of Proverbs may be considered under five divisions. 1. The first, which is a kind of preface, extends to the tenth chapter. This contains general cautions and exhortations for a teacher to his pupil, expressed in elegant language, duly connected in its parts, illustrated with beautiful description, and well contrived to engage and interest the attention. 2. The second part extends from the beginning of c. x. to c. xxii. 17, and consists of what may strictly and properly be called proverbs, viz. unconnected sentences, expressed with much neatness and simplicity. They are truly, to use the language of their sage author, 'apples of gold in pictures of silver.' 3. In the third part, which is included between c. xxii. 16, and c. xxv., the tutor drops the sententious style, addresses his pupil as present, and delivers his advices in a connected manner. 4. The Proverbs which are included between c. xxv. and c. xxx. are supposed to have been selected by the men of Hezekiah from some larger collections of Solomon, that is, by the prophets whom he employed to restore the service and writings of the church. Some of the proverbs which Solomon had introduced into the former part of the book are here repeated. 5. The prudent admonitions which Agur delivered to his pupils Ithiel and Ucal are contained in the thirtieth chapter, and in the thirty-first are recorded the precepts which the mother of Lemuel delivered to her son. Several references are evidently made to the book of Proverbs by the writers of the New Testament. Rom. ix. 16. 20; 1 Peter iv. 8, v. 5; James iv.

The Proverbs of Solomon afford specimens of the didactic poetry of the Hebrews. They abound with antithetic parallels; for this form is peculiarly adapted to that kind of writing, to adages, aphorisms, and detached sentences. Indeed, the elegance, acuteness, and force of a great number of Solomon's wise sayings arise in a great measure from the antithetic form, the opposition of diction and sentiment.

The Hebrew title of the book called ECCLESIASTES is Keleth, that is, the gatherer or collector; and it is so called, either because the work itself is a collection of maxims, or because it was delivered to an assembly gathered together to hear them. The Greek term Ecclesiastes is of

the same import, signifying one who gathers together a congregation, or who discourses or preaches to an assembly convened. That Solomon was the author of this book is beyond all doubt; the beautiful description of the phenomena in the natural world, and their causes; of the circulation of the blood, as some think (see Horsley's Sermon before the Humane Society), and the economy of the human frame, shows it to be the work of a philosopher. At what period of his life it was written may be easily found out. The affecting account of the infirmities of old age which it contains is a strong indication that the author knew by experience what they were; and his complete conviction of the vanity of all earthly enjoyments proves it to have been the work of a penitent. Some passages in it seem, indeed, to express an epicurean notion of Providence. But it is to be observed that the author, in an academic way, disputes on both sides of the question; and at last concludes properly, that to 'fear God and keep his commandments is the whole duty of man; for God will bring every work to judgment.'

The general tenor and style of Ecclesiastes is very different from the book of Proverbs, though there are many detached sentiments and proverbs interspersed. For the whole work is uniform, and confined to one subject, namely, the vanity of the world exemplified by the experience of Solomon, who is introduced in the character of a person investigating a very difficult question, examining the arguments on either side, and at length disengaging himself from an anxious and doubtful disputation. The style of this work is singular; the language is generally low; it is frequently loose, unconnected, approaching to the incorrectness of conversation, and possesses very little of the poetical character, even in the composition and structure of the periods; which peculiarity may possibly be accounted for from the nature of the subject. Contrary to the opinion of the rabbies, Ecclesiastes has been classed among the poetical books; though authority and opinions might perhaps on this occasion deserve some attention.

THE SONG OF SONGS, or CANTICLES OF SOLOMON, forms one of the books of canonical Scripture mentioned by Josephus, and one book in the Jewish divisions of Scripture adopted by our Saviour and his apostles. The mystical meaning of this poem seems to afford the only reason for its insertion in the Jewish canon. Under the figure of a marriage is typified the intimate relation subsisting between Christ and his church; and the same figures found in this allegory have been transferred into the New Testament. See Matt. ix. 15, xxii. 2, xxv. 1—11; John iii. 29; 2 Cor. xi. 2; Eph. v. 23, 27; Rev. xix. 7, 9; xxii. 17. Dr. Good, whose excellent translation of this book of Scripture will afford much valuable aid in its perusal, considers it as a series of idyls, like the cassides of the poets of Arabia. Its style, as remarked by bishop Lowth, is of the pastoral kind, the two principal personages being represented in the character of shepherds. The manner in which the Song of Solomon has been interpreted by most expositors has had the effect of exposing it to unmerited

contempt. Not entering into the style and spirit of oriental poesy, they have given to some passages a coarse and indelicate appearance; and, not distinguishing between the literal and allegorical senses, they have destroyed the consistency and beauty of the poem, and bewildered the mind of the reader. To understand this part of Scripture requires not only a renewed heart and an enlightened mind, but a sober and cautious judgment. The spiritual senses must be exercised to discern clearly spiritual truths, and the imagination must be curbed by a reverential apprehension of the majesty and condescension of God. Among the Jews, it is said, they were not allowed to read it until they had attained the sacerdotal age of thirty years.

IV. Of the prophetic writings of the Old Testament.—The second of those great divisions under which the Jews classed the books of the Old Testament was that of the PROPHETS, which formerly comprehended sixteen books; and which we now consider last in order, according to their modern arrangement in our bibles. Although the greater part of the Psalms are prophetic, and the Song of Solomon is esteemed a prophetic allegory, yet, these writings being already taken notice of, we mean to restrict the subject of this section to the writings of the prophets, properly so called. The prophets were sixteen in number: Isaiah, Jeremiah, Ezekiel, Daniel, Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah, Malachi. The first four are called the greater prophets; the other twelve are denominated the minor prophets. The writings of the prophets are to Christians the most interesting part of the Old Testament; for they afford one of the most powerful arguments for the divine origin of the Christian religion. If we can only prove, therefore, that these prophecies were uttered a single century before the events took place to which they relate, their claim to inspiration is unquestionable. But we can do more; we can prove that the interval between their enunciation and accomplishment extended much farther, even to 500 or 1000 years, and in some cases much more.

The books of the prophets are mentioned by Josephus, and therefore surely existed in his time; they are also quoted by our Saviour under the general denomination of the prophets. We are informed by Tacitus and Suetonius that about sixty years before the birth of our Saviour there was a universal expectation in the east of a great personage who was to arise; and the source of this expectation is traced by the same writers to the sacred books of the Jews. They existed also in the time of Antiochus Epiphanes, A. C. 166; for when that tyrant prohibited the reading of the law, the books of the prophets were substituted in its place, and were continued as a part of the daily service after the interdict against the law of Moses was taken off. We remarked that references are made by the author of Ecclesiasticus, A. C. 200, to the writings of Isaiah, Jeremiah, and Ezekiel, and that he mentions the twelve prophets. We can ascend still higher, and assert, from the language of the prophets, that all their writings must have been com-

posed before the Babylonish captivity, or within a century after it; for all of them, except Daniel and Ezra, are composed in Hebrew, and even in them long passages are found in that language; but it is a well known fact that all the books written by Jews about two centuries after that era are composed in the Syriac or Chaldaic, or Greek language. 'Let any man,' says Michaelis, 'compare what was written in Hebrew after the Babylonish exile, and I apprehend he will perceive no less evident marks of decay than in the Latin language.' Even in the time of Ezra, the common people, from their long residence in Babylonia, had forgotten the Hebrew, and it was necessary for the learned to interpret the law of Moses to them. We can therefore ascertain with very considerable precision the date of the prophetic writings; which indeed is the only important point to be determined: for, if we can only establish their ancient date, we shall be fully entitled to draw this conclusion, that the predictions of the prophets are inspired.

Much has been written to explain the nature of inspiration, and to show by what methods God imparted to the prophets that divine knowledge which they were commanded to publish to their countrymen. But on this subject we shall not attempt to be wise above what is written. The manner in which the all-wise and unseen God may think proper to operate upon the minds of his creatures, we might expect a priori to be mysterious and inexplicable. The business of philosophy is not to enquire how almighty power produced the frame of nature, and bestowed upon it that beauty and grandeur which is every where conspicuous, but to discover those marks of intelligence and design, and the various purposes to which the works of nature are subservient. Philosophy has of late been directed to theology and the study of the Scriptures with the happiest effects; but it is not permitted to enter within the veil which the Lord of nature has thrown over his councils. Its province, which is sufficiently extensive, is to examine the language of the prophecies, and to discover their application.

The character of the prophetic style varies according to the genius, the education, and mode of living of the respective authors; but there are some peculiarities which run through the whole prophetic books. A plain unadorned style would not have suited those men who were to wrap the mysteries of futurity in a veil, which was not to be penetrated till the events themselves should be accomplished. For it was never the intention of prophecy to unfold futurity to our view, as many of the rash interpreters of prophecy fondly imagine; for this would be inconsistent with the free agency of man. It was therefore agreeable to the wisdom of God that prophecies should be couched in language which would render them unintelligible till the period of their completion; yet such a language as is distinct, regular, and would be easily explained when the events themselves should have taken place. This is precisely the character of the prophetic language. It is partly derived from the hieroglyphical symbols of Egypt, to which the Israelites during their servitude were fami-

harized, and partly from that analogy which subsists between natural objects and those which are moral and political.

The prophets borrowed their imagery from the most splendid and sublime natural objects, from the host of heaven, from seas and mountains, from storms and earthquakes, and from the most striking revolutions in nature. The celestial bodies they used as symbols to express thrones and dignities, and those who enjoyed them. Earth was the symbol for men of low estate. Hades represents the miserable. Ascending to heaven, and descending to earth, are phrases which express rising to power, or falling from it. Great earthquakes, the shaking of heaven and earth, denote the commotions and overthrow of the kingdoms. The sun represents the whole race of kings shining with regal power and glory. The moon is the symbol of the common people. The stars are subordinate princes and great men. Light denotes glory, truth, or knowledge. Darkness expresses obscurity of condition, error, and ignorance. The darkening of the sun, the turning of the moon into blood, and the falling of the stars, signify the destruction or desolation of a kingdom. New moons, the returning of a nation from a dispersed state. Conflagration of the earth is the symbol for destruction by war. The ascent of smoke from any thing burning denotes the continuance of a people under slavery. Riding in the clouds signifies reigning over many subjects. Tempestuous winds, or motion of the clouds, denotes wars. Thunder denotes the noise of multitudes. Fountains of water express cities. Mountains and islands, cities with the territories belonging to them. Houses and ships stand for families, assemblies, and towns. A forest is put for a kingdom. A wilderness for a nation much diminished in its numbers. Animals, as a lion, bear, leopard, goat, are put for kingdoms or political communities corresponding to their respective characters. When a man or beast is put for a kingdom, the head represents those who govern, the tail those who are governed; the horns denote the number of military powers or states that rise from the head. Seeing signifies understanding; eyes, men of understanding; the mouth denotes a lawgiver; the arm of a man is put for power, or for the people by whose strength his power is exercised; feet represent the lowest of the people.

Such is the precision and regularity of the prophetic language, which we learn to interpret by comparing prophecies which are accomplished with the facts to which they correspond. So far is the study of it carried already that a dictionary has been composed to explain it; and it is probable that in a short time it may be so fully understood that we shall find little difficulty in explaining any prophecy. But let us not from this expect that the prophecies will enable us to penetrate the dark clouds of futurity: No! The difficulty of applying prophecies to their

corresponding events, before completion, will still remain insurmountable. Those men, therefore, however pious and well-meaning they may be, who attempt to explain and apply prophecies which are not yet accomplished, and who delude the credulous multitude by their own romantic conjectures, cannot be acquitted of rashness and presumption.

The predictions of the prophets, according to the opinion of Dr. Lowth, are written in a poetic style. They possess indeed all the characteristics of Hebrew poetry, with the single exception that none of them are alphabetical or acrostic, which is an artificial arrangement utterly repugnant to the nature of prophecy. The other arguments, however, ought to be particularly adverted to upon this subject; the poetic dialect for instance, the diction so totally different from the language of common life, and other similar circumstances, which an attentive reader will easily discover, but which cannot be explained by a few examples; for circumstances which, when taken separately, appear but of small account, are in a united view frequently of the greatest importance. To these we may add the artificial conformation of the sentences; which is a necessary concomitant of metrical composition, the only one indeed which is now apparent, as it has always appeared to us.

The order in which the books of the minor prophets are placed is not the same in the Septuagint as in the Hebrew. According to the latter, they stand as in our translation; but in the Greek the series is altered, as to the first six, to the following arrangement:—Hosea, Amos, Micah, Joel, Obadiah, Jonah. This change, however, is of no consequence, since, neither in the original nor in the Septuagint, are they placed with exact regard to the time in which their sacred authors respectively flourished. The order in which they should stand, if chronologically arranged, is by Blair and others supposed to be as follows:—Jonah, Amos, Hosea, Micah, Nahum, Joel, Zephaniah, Habakkuk, Obadiah, Haggai, Zechariah, Malachi. And this order will be found to be generally consistent with the periods to which the prophets will be respectively assigned in the following pages, except in the instance of Joel, who probably flourished rather earlier than he is placed by these chronologers. The precise period of this prophet, however, cannot be ascertained; and some disputes might be maintained concerning the priority of others also, when they were nearly contemporaries, as Amos and Hosea; and when the first prophecies of a latter prophet were delivered at the same time with, or previous to those of a prophet who was called earlier to the sacred office. The following scheme, however, in which also the greater prophets will be introduced, may enable the reader more accurately to comprehend the actual and relative periods in which they severally prophesied:—

THE PROPHETS in their supposed CHRONOLOGICAL ORDER, according to Blair's Tables, with some variations.

Prophets.	Years B. C.	Kings of Israel, Judah, Babylon, and Persia.
		Jehu and Jehoahaz.
	Between	<i>Lloyd.</i>
Jonah	856 and 784	Joash and Jeroboam II.
		<i>Blair.</i>
Amos	810 — 785	Uzziah and Jeroboam II.
Hosea	810 — 725	Uzziah and Jeroboam II., Jotham, and Ahaz, to the third year of Hezekiah.
Isaiah	810 — 698	Uzziah, Jotham, Ahaz, Hezekiah, and Manasseh.
Joel	810 — 660	Uzziah to Manasseh.
Micah	758 — 699	Jotham, Ahaz, Hezekiah, Pekah, and Hosea.
Nahum	720 — 698	Hezekiah.
Zephaniah	640 — 609	Josiah.
Jeremiah	628 — 586	Josiah, Jehoahaz, Jehoakim, Jeconiah, Zedekiah, and Gedaliah.
Habakkuk	612 — 598	Jehoiakim.
Daniel	606 — 534	Nebuchadnezzar, Evilmerodach, Belshazzar, Cyaxares II. or Darius the Mede, Cyrus the Great.
Obadiah	588 — 583	Nebuchadnezzar.
Ezekiel	595 — 536	Nebuchadnezzar.
Haggai	520 — 518	Darius Hystaspis.
Zechariah	520 — 516	Darius Hystaspis.
Malachi	436 — 397	Ahasuerus or Artaxerxes.

ISAIAH is supposed to have entered upon the prophetic office in the last year of the reign of Uzziah, about 758 years A. C., and it is certain that he lived to the fifteenth or sixteenth year of Hezekiah. This makes the least possible term of the duration of his prophetic office about forty-eight years. The Jews say that Isaiah was put death in the reign of Manasseh, being sawn asunder with a wooden saw by the command of that tyrant, and this seems to be confirmed by St. Paul in Heb. xi. 37 (see ISAIAH). The time of the delivery of some of his prophecies is either expressly marked, or sufficiently clear from the history to which they relate. The date of a few others may be deduced from internal marks; from expressions, descriptions, and circumstances interwoven.

Isaiah, the first of the prophets both in order and dignity, abounds in such transcendent excellencies that he may be properly said to afford the most perfect mode of the prophetic poetry. He is at once elegant and sublime, forcible and ornamented; he unites energy with copiousness, and dignity with variety. In his sentiments there is uncommon elevation and majesty; in his imagery the utmost propriety, elegance, dignity, and diversity; in his language uncommon beauty and energy; and, notwithstanding the obscurity of his subjects, a surprising degree of clearness and simplicity. There is such sweetness in the poetical composition of his sentences that the native grace and harmony of the Hebrew poetry is chiefly to be found in the writings of Isaiah.

He greatly excels too in all the graces of method, order, connexion, and arrangement; though in asserting this we must not forget the nature of the prophetic impulse, which bears away the mind with irresistible violence, and frequently in rapid transitions from near to remote objects, from human to divine; we must also remark limits of particular predictions, since, as they are now extant, they are often improperly connected, without any marks of discrimination; which injudicious arrangement, on some occasions, creates almost insuperable difficulties. It is, in fact, a collection of different prophecies, nearly allied to each other as to the subject, which, for that reason, having a sort of connexion are not to be separated but with the utmost difficulty. The general subject is the restoration of the church. Its deliverance from captivity, the destruction of idolatry, the vindication of the divine power and truth, the consolation of the Israelites, the divine invitation to them, their incredulity, impiety, and rejection, the calling in of the Gentiles, the restoration of the chosen people, the glory and felicity of the church in its perfect state, and the ultimate destruction of the wicked—are all set forth with a sufficient respect to order and method. If we read these passages with attention, and duly regard the nature and genius of the mystical allegory, at the same time remembering that all these points have been frequently touched upon in other prophecies promulgated at different times, we shall neither find any irregularity in the arrangement of the whole, nor any want of order and connexion as to matter or sentiment in the different parts. Dr. Lowth esteems the whole book of Isaiah to be poetical, a few passages excepted, which would not exceed the bulk of five or six chapters. The fourteenth chapter of Isaiah is one of the most sublime odes in the Scripture, and contains one of the noblest personifications to be found in the records of poetry.

The prophet, after predicting the liberation of the Jews from their severe captivity in Babylon, and their restoration to their own country, introduces them as reciting a kind of triumphal song upon the fall of the Babylonish monarch, replete with imagery, and with the most elegant and animated personifications. A sudden exclamation, expressive of their joy and admiration on the unexpected revolution in their affairs and the destruction of their tyrants, forms the exordium of the poem. The earth itself triumphs with the inhabitants thereof; the fir-trees and the cedars of Lebanon (under which images the parabolic style frequently delineates the kings and princes of the Gentiles) exult with joy, and persecute with contemptuous reproaches the humbled power of a ferocious enemy.

How forcible is this imagery, how diversified, how sublime! how elevated the diction, the figures, the sentiments! The Jewish nation, the cedars of Lebanon, the ghosts of departed kings, the Babylonish monarch, the travellers who find his corpse, and, last of all, Jehovah himself, are the characters which support this beautiful lyric drama. One continued action is kept up, or rather a series of interesting actions are connected together in an incomparable whole. This

indeed is the principal and distinguished excellence of the sublimer ode, and is displayed in its utmost perfection in this poem of Isaiah, which may be considered as one of the most ancient, and certainly the most finished specimens of that species of composition which has been transmitted to us. The personifications here are frequent, yet not confused; bold, yet not improbable; a free, elevated, and truly divine spirit, pervades the whole: nor is there any thing wanting in this ode to defeat its claim to the character of perfect beauty and sublimity. 'If,' says Dr. Lowth, 'I may be indulged in the free declaration of my own sentiments, I do not know a single instance, in the whole compass of Greek and Roman poetry, which, in every excellence of composition, can be said to equal, or even approach it.' But though we cordially agree with Dr. Lowth, in the encomiums he bestows on the poetical beauties of this inspired prophet, we must observe that his chief merit lies in something of much superior value. The great, the infinite value of Isaiah's writings to the Christian consists in this, that his prophecies abound with the clearest and most accurate descriptions of the birth, life, and humiliations, preaching, miracles, propitiatory sufferings, death, resurrection, and divine character of our Saviour, of any of the whole inspired writings; inasmuch that this prophet has been justly styled the evangelical prophet. Without this pre-eminent merit, all the beauties of his style and imagery would be of no more importance to mankind than those in Homer, Virgil, or Milton.

JEREMIAH was called to the prophetic office in the thirteenth year of the reign of Josiah the son of Amon, A. M. 3376, A. C. 628, and continued to prophecy upwards of forty years, during the reigns of the degenerate princes of Judah, to whom he boldly threatened those marks of the divine vengeance which their rebellious conduct drew on themselves and their country. After the destruction of Jerusalem by the Chaldeans, he was suffered by Nebuchadnezzar to remain in the desolate land of Judea to lament the calamities of his infatuated countrymen. He was afterwards, as he informs us, carried with his disciple Baruch into Egypt, by Johanan the son of Kareah. It appears from several passages that Jeremiah committed his prophecies to writing. In the thirty-sixth chapter we are informed that the prophet was commanded to write upon a roll all the prophecies which he had uttered; and, when the roll was destroyed by Jehoiakim the king, Jeremiah dictated the same prophecies to Baruch, who wrote them, together with many additional circumstances. The works of Jeremiah extend to the last verse of the fifty-first chapter, in which we have these words:—'Thus far are the words of Jeremiah.' The fifty-second chapter was therefore added by some other writer. It is, however, a very important supplement, as it illustrates the accomplishment of Jeremiah's prophecies respecting the fate of Zedekiah.

The prophecies of Jeremiah are not arranged in the chronological order in which they were delivered. What has occasioned this transposi-

tion cannot now be determined. It is generally maintained that, if we consult their dates, they ought to be thus placed:—In the reign of Josiah, the first twelve chapters. In the reign of Jehoiakim, chapters xiii., xx., xxi., xiv. 11, 14, xxii., xxiii., xxv., xxvi., xxx., xxxvi., xlv.—xlix. 1—33. In the reign of Zedekiah, chap. xxi. 1—10, xxiv., xxxvii., xxxiv., xxxviii., xxxix., xlix., 34—39, l. and li. Under the government of Gedaliah, chapters xl. xlv. The prophecies which related to the Gentiles were contained in the forty-sixth and five following chapters, being placed at the end, as in some measure unconnected with the rest. But in some copies of the Septuagint these six chapters follow immediately after the thirteenth verse of the twenty-fifth chapter.

Jeremiah, though deficient neither in elegance nor sublimity, must give place in both to Isaiah. Jerome seems to object against him a sort of rusticity of language, no vestige of which Dr. Lowth was able to discover. His sentiments, indeed, are not always the most elevated; nor are his periods always neat and compact; but these are faults common to those writers whose principal aim is to excite the gentler affections, and to call forth the tear of sympathy or sorrow. This observation is strongly exemplified in the Lamentations, where these are the prevailing passions; it is, however, frequently instanced in the prophecies of this author, and most of all in the beginning of the book, which is chiefly poetical. The middle of it is almost entirely historical. The latter part, again, consisting of the last six chapters, is altogether poetical; it contains several different predictions, which are distinctly marked; and in these the prophet approaches very near the sublimity of Isaiah. On the whole, however, not above half the book of Jeremiah is poetical.

The book of LAMENTATIONS, as we are informed in the title, was composed by Jeremiah. We shall present to our reader an account of this elegiac poem from the elegant pen of Dr. Lowth. 'The Lamentations of Jeremiah (for the title is properly and significantly plural) consist of a number of plaintive effusions, composed upon the plan of the funeral dirges, all upon the same subject, and uttered without connexion as they rose in the mind, in a long course of separate stanzas. These have afterwards been put together, and formed into a collection or correspondent whole. If any reader, however, should expect to find in them an artificial and methodical arrangement of the general subject, a regular disposition of the parts, a perfect connexion and orderly succession in the matter, and with all this an uninterrupted series of elegance and correctness, he will really expect what was foreign to the prophet's design. In the character of a mourner, he celebrates, in plaintive strains, the obsequies of his ruined country; whatever presented itself to his mind in the midst of desolation and misery, whatever struck him as particularly wretched and calamitous, whatever the instant sentiment of sorrow dictated, he pours forth in a kind of spontaneous effusion. He frequently pauses, and, as it were, ruminates upon the same object; frequently varies and

illustrates the same, though with different imagery, and a different choice of language; so that the whole bears rather the appearance of an accumulation of corresponding sentiments, than an accurate and connected series of different ideas, arranged in the form of a regular treatise. There is, however, no wild incoherency in the poem; the transitions are easy and elegant.

'The work is divided into five parts; in the first, second, and fourth chapters, the prophet addresses the people in his own person, or introduces Jerusalem as speaking. In the third a chorus of the Jews is represented. In the fifth the whole captive Jews pour forth their united complaints to Almighty God. Each of these five parts is distributed into twenty-two stanzas, according to the number of the letters of the alphabet. In the first three chapters these stanzas consist of three lines. In the first four chapters the initial letter of each period follows the order of the alphabet; and in the third chapter each verse of the same stanza begins with the same letter. In the fourth chapter all the stanzas are evidently distichs, as also in the fifth, which is not acrostic. The intention of the acrostic was to assist the memory to retain sentences not much connected. It deserves to be remarked that the verses of the first four chapters are longer by almost one-half than Hebrew verses generally are: the length of them seems to be on an average about twelve syllables. The prophet appears to have chosen this measure as being solemn and melancholy.

'That the subject of the Lamentations is the destruction of the holy city and temple, the overthrow of the state, the extermination of the people; and that these events are described as actually accomplished, and not in the style of prediction merely, must be evident to every reader; though some authors of considerable reputation (Josephus, Jerome, Usher, &c.) have imagined this poem to have been composed on the death of king Josiah. The prophet, indeed, has so copiously, so tenderly, and poetically bewailed the misfortunes of his country, that he seems completely to have fulfilled the office and duty of a mourner. In my opinion, there is not extant any poem which displays such a happy and splendid selection of imagery in so concentrated a state. What can be more elegant and poetical than the description of that once flourishing city, lately chief among the nations, sitting in the character of a female, solitary, afflicted, in a state of widowhood, deserted by her friends, betrayed by her dearest connexions, imploring relief, and seeking consolation in vain? What a beautiful personification is that of the 'ways of Sion, mourning because none are come to her solemn feasts!' How tender and pathetic are the complaints! See chap. i. 12—16.

EZEKIEL was carried to Babylon as a captive, and received the first revelations from heaven, in the fifth year of Jehoiakim's captivity, A. C. 595. The book of Ezekiel is sometimes distributed under different heads. In the first three chapters the commission of the prophet is described. From the fourth to the thirty-second, inclusive, the calamities that befel the enemies of the Jews are predicted, viz. the Ammonites, the Moabites,

and Philistines. The ruin of Tyre and of Sidon, and the fall of Egypt, are particularly foretold; prophecies which have been fulfilled in the most literal and astonishing manner, as we have been often assured by the relation of historians and travellers. From the thirty-second chapter to the fortieth, he inveighs against the hypocrisy and murmuring spirit of his countrymen, admonishing them to resignation by promises of deliverance. In the thirty-eighth and thirty-ninth chapters he undoubtedly predicts the final return of the Jews from their dispersion in the latter days, but in a language so obscure that it cannot be understood till the event take place. The last nine chapters of this book furnish the descriptions of a very remarkable vision of a new temple and city, of a new religion and polity.

'Ezekiel is much inferior to Jeremiah in elegance; in sublimity he is not even excelled by Isaiah; but his sublimity is of a totally different kind. He is deep, vehement, tragical; the only sensation he affects to excite is the terrible; his sentiments are elevated, fervid, full of fire, indignant; his imagery is crowded, magnificent, terrific; his language is pompous, solemn, austere, rough, and at times unpolished; he employs frequent repetitions, not for the sake of grace or elegance, but from the vehemence of passion or indignation. Whatever subject he treats of, that he sedulously pursues, from that he rarely departs, but cleaves as it were to it; whence the connexion is in general evident and well preserved. In many respects he is perhaps excelled by the other prophets; but in that species of composition to which he seems by nature adapted, the forcible, the impetuous, the great and solemn, not one of the sacred writers is superior to him. His diction is sufficiently perspicuous; all his obscurity consists in the nature of the subject. Visions (as for instance, among others, those of Hosea, Amos, and Jeremiah) are necessarily dark and confused. The greater part of Ezekiel, towards the middle of the book especially, is poetical, whether we regard the matter or the diction. His periods, however, are frequently rude and incompact. Isaiah, Jeremiah, and Ezekiel, as far as relates to style, may be said to hold the same rank among the Hebrews as Homer, Simonides, and Æschyles, among the Greeks.'

A pretty full account of DANIEL and his writings has been already given under that article. Daniel flourished during the reign of five Babylonish kings from Nebuchadnezzar to Belshazzar, until the conquest of Babylon by Cyrus. The events recorded in the sixth chapter were contemporary with Darius the Mede; but in the seventh and eighth chapters Daniel returns to an earlier period, to relate the visions which he beheld in the first three years of Belshazzar's reign; and those which follow in the last four chapters were revealed to him in the reign of Darius; except the tenth, which is expressly dated in the third year of Cyrus, and records his glorious vision of the Messiah, who therein styles him 'a man greatly beloved.' But the last six chapters are all connected as parts of one great scheme. They extend through many ages, and furnish the most striking description of the fall of successive

kingdoms, which were to be introductory to the establishment of the Messiah's reign. They characterise in descriptive terms the four great monarchies of the world to be succeeded by 'that kingdom which shall never be destroyed.' See Dan. ii. 44, and MONARCHY.

The whole book of Daniel being a plain relation of facts, partly past and partly future, admits not of poetical beauties. Much indeed of the parabolic imagery is introduced in that book; but the author introduces it as a prophet only; as visionary and allegorical symbols of objects and events, totally untinctured with the true poetical coloring. The Jews, indeed, refuse to Daniel even the character of a prophet; but their arguments for this opinion are futile, trifling, absurd, and totally destitute of scriptural authority.

The prophecies of Daniel appear so plain and intelligible, after their accomplishment, that Porphyry, who wrote in the third century, affirms that they were written after the events to which they refer took place. A little reflection will show the absurdity of this supposition. Some of the prophecies of Daniel clearly refer to Antiochus Epiphanes, with whose oppressions the Jews were too well acquainted. Had the book of Daniel not made its appearance till after the death of Epiphanes, every Jew who read it must have discovered the forgery. And what motive could have induced them to receive it among their sacred books? It is impossible to conceive one. Their character was quite the reverse; their respect for the Scriptures had degenerated into superstition. But we are not left to determine this important point from the character of the Jews; we have access to more decisive evidence; we are sure that the book of Daniel contains prophecies, for some of them have been accomplished since the time of Porphyry; particularly those respecting Antichrist; some of them seem to be at present fulfilling; and others will evidently not be fulfilled till near the final consummation of all sublunary things; of which, indeed, his concluding verses seem to point out the period. Dan. xii. 11, 12.

The language in which the book of Daniel is composed proves that it was written about the time of the Babylonish captivity. Part of it is pure Hebrew; a language in which none of the Jewish books were composed after the age of Epiphanes. These are arguments to a deist. To a Christian the internal marks of the book itself will show the time in which it was written, and the testimony of Ezekiel will prove Daniel to have been at least his contemporary. See Ezek. xiv. 14, xxviii. 3.

The *twelve minor prophets* were so called, not from any supposed inferiority in their writings, but on account of the small size of their works. Perhaps it was for this reason that the Jews joined them together, and considered them as one volume. These twelve prophets present in scattered hints a lively sketch of many particulars relative to the history of Judah and of Israel, as well as of other kingdoms; they prophesy with historical exactness the fate of Babylon, of Nineveh, of Tyre, of Sidon, and of Damascus. The last three prophets especially illustrate many cir-

cumstances at a period when the historical pages of Scripture are closed, and when profane writers are entirely wanting. At first the Jewish prophets appeared only as single lights, and followed each other in individual succession; but they became more numerous about the time of the captivity. The light of inspiration was collected into one blaze, previous to its suspension; and it served to keep alive the faith and hopes of the Jews during the awful interval which prevailed between the expiration of prophecy and its grand completion in the advent of Christ.

HOSEA has been supposed the most ancient of the twelve minor prophets. He flourished in the reign of Jeroboam II. king of Israel, and during the successive reigns of Uzziah, Jotham, Ahaz, and Hezekiah, kings of Judah. He was therefore nearly contemporary with Isaiah, Amos, and Jonah. Hosea is the first in order of the minor prophets, and is perhaps, Jonah excepted, the most ancient of them all. His style exhibits the appearance of very remote antiquity; it is pointed, energetic, and concise. It bears a distinguished mark of poetical composition, in that pristine brevity and condensation which is observable in the sentences, and which latter writers have in some measure neglected. This peculiarity has not escaped the observation of Jerome: 'He is altogether,' says he, 'laconic and sententious.' But this very circumstance, which anciently was supposed no doubt to impart uncommon force and elegance, in the present ruinous state of the Hebrew literature, is productive of so much obscurity, that, although the general subject of this writer be sufficiently obvious, he is the most difficult and perplexed of all the prophets. There is, however, another reason for the obscurity of his style: Hosea prophesied during the reigns of the four kings of Judah, Uzziah, Jotham, Ahaz, and Hezekiah. The duration of his ministry, therefore, in whatever manner we calculate, must include a very considerable space of time. We have now only a small volume of his remaining, which seems to contain his prophecies; and these are extant in a continued series, with no marks of distinction as to the times in which they were published, or the subjects of which they treat.

Concerning the date of the prophecy of JOEL there are various conjectures. The book itself affords nothing by which we can discover when the author lived, or upon what occasion it was written. Joel speaks of a great famine, and of mischiefs that happened in consequence of an inundation of locusts; but nothing can be gathered from such general observations to enable us to fix the period of his prophecy. St. Jerome thinks (and it is the general opinion) that Joel was contemporary with Hosea. Calmet places him under the reign of Josiah, at the same time with Jeremiah, and thinks it probable that the famine to which Joel alludes is the same with that which Jeremiah predicted, chap. viii. 13.

The style of Joel is essentially different from that of Hosea; but the general character of his diction, though of a different kind, is not less poetical. He is elegant, perspicuous, copious, and fluent; he is also sublime, animated, and energetic. In the first and second chapters: he

displays the full force of the prophetic poetry, in metaphors, allegories, and comparisons. Nor is the connexion of the matter less clear and evident than the complexion of the style; this is exemplified in the display of the impending evils which gave rise to the prophecy; the exhortation to repentance; the promises of happiness and success, both terrestrial and eternal, to those who become truly penitent; the restoration of the Israelites; and the vengeance to be taken of their adversaries. But, while we allow this just commendation to his perspicuity, we must not deny that there is sometimes great obscurity in his subjects. His prophecy of the plague of locusts is described with great sublimity of expression. See chap. i. 6, 7, 10, &c.

AMOS was contemporary with Hosea. They both began to prophesy during the reigns of Uzziah over Judah, and of Jeroboam II. over Israel. Amos saw his first vision two years before the earthquake, which Zechariah informs us happened in the days of Uzziah. See AMOS.

Amos was no prophet (as he informed Amaziah), neither was he a prophet's son, that is, he had no regular education in the schools of the prophets. The prophecies of Amos consist of several distinct discourses, which chiefly respect the kingdom of Israel; yet sometimes the prophet inveighs against Judah, and threatens the adjacent nations, the Syrians, Philistines, Tyrians, Edomites, Ammonites, and Moabites. Mr. Locke has observed that the comparisons of this prophet are chiefly drawn from lions and other animals with which he was most accustomed; but the finest images and allusions are drawn from scenes of nature. There are many beautiful passages in the writings of Amos.

The writings of OBADIAH, which consist of one chapter, are composed with much beauty, and unfold a very interesting scene of prophecy. Of this prophet little can be said, as the specimen of his genius is so short, and the greater part of it included in one of the prophecies of Jeremiah. Compare Ob. 1—9 with Jer. xlix. 14, 15, 16. See OBADIAH.

Though JONAH be placed the sixth in order of the minor prophets, both in the Hebrew and Septuagint, he is generally considered as the most ancient of all the prophets, not excepting Hosea. He lived in the kingdom of Israel, and prophesied to the ten tribes under Joash and Jeroboam. The book of Jonah is chiefly historical, and contains nothing of poetry but the prayer of the prophet. The sacred writers, and our Lord himself, speak of Jonah as a prophet of considerable eminence. See JONAH, and Matt. xii. 39. 41, xvi. 4, and Luke xi. 29.

MICAH began to prophesy soon after Isaiah, Hosea, Joel, and Amos; and he prophesied between A. M. 3246, when Jotham began to reign, and A. M. 3305, when Hezekiah died. One of his predictions saved the life of Jeremiah, who under the reign of Jehoiakim would have been put to death for prophesying the destruction of the temple, had it not appeared that Micah had foretold the same thing under Hezekiah about 100 years before. Joseph. Antiq. lib. x. c. 7, Mic. iii. 12. Micah is mentioned as a prophet in the book of Jeremiah and in Matt. ii. 5;

John vii. 42. He is imitated by succeeding prophets, as he himself had borrowed expressions from his predecessors. Our Saviour himself spoke in the language of this prophet. See Micah, vii. 6, and Matt. x. 35, 36. The style of Micah is for the most part close, forcible, pointed, and concise; sometimes approaching the obscurity of Hosea; in many parts animated and sublime; and in general truly poetical. In his prophecies there is an elegant poem, which Dr. Lowth thinks is a citation from the answer of Balaam to the king of the Moabites. See chap. vi. 6—8.

Josephus asserts that NAHUM lived in the time of Jotham king of Judah; in which case he may be supposed to have prophesied against Nineveh when Tiglath-Pileser king of Assyria carried captive the natives of Galilee and other parts, about A. M. 3264. It is however probable that his prophecies were delivered in the reign of Hezekiah; for he appears to speak of the taking of No-Ammon, a city of Egypt, and of the insolent messengers of Sennacherib, as of things past; and he describes the people of Judah as still in their own country, and desirous of celebrating their festivals. While Jerusalem was threatened by Sennacherib, Nahum promised deliverance to Hezekiah, and predicted that Judah would soon celebrate her solemn feasts secure from invasion, as her enemy would no more disturb her peace. In the second and third chapters Nahum foretels the downfall of the Assyrian empire and the final destruction of Nineveh, which was probably accomplished by the Medes and Babylonians, whose combined forces overpowered the Assyrians by surprise, 'while they were folden together as thorns, and while they were drunken as drunkards,' when the gates of the river were opened, the palace demolished, and an 'over-running flood' assisted the conquerors in their devastation; who took an endless store of spoil of gold and silver, making an utter end of Nineveh, that vast and populous city, whose walls were 100 feet high, and so broad that three chariots could pass abreast. Yet, so completely was this celebrated city destroyed, that even in the second century the spot on which it stood could not be ascertained, every vestige of it being gone. It is impossible to read of the exact accomplishment of the prophetic denunciations against the enemies of the Jews, without reflecting on the astonishing proofs which that nation enjoyed of the divine origin of their religion. From the Babylonish captivity to the time of Christ they had numberless instances of the fulfilment of their prophecies. 'None of the minor prophets,' says Dr. Lowth, 'seem to equal Nahum in boldness, ardor, and sublimity. His prophecy, too, forms a regular and perfect poem; the exordium is not merely magnificent, it is truly majestic; the preparation for the destruction of Nineveh, and the description of its downfall and desolation, are expressed in the most vivid colors, and are bold and luminous in the highest degree.'

As the prophet HABAKKUK makes no mention of the Assyrians, and speaks of the Chaldean invasions as near at hand, he probably lived after the destruction of the Assyrian empire in the

fall of Nineveh, A. M. 3392, and not long before the devastation of Judea by Nebuchadnezzar. Habakkuk then was nearly contemporary with Jeremiah, and predicted the same events. A general account of Habakkuk's prophecies have already been given under the article HABAKKUK. The prayer in the third chapter is a most beautiful and perfect ode, possessing all the fire of poetry, and the profound reverence of religion. The prophet illustrates his subject throughout with great sublimity; selecting an assemblage of miraculous incidents the most noble and important, displaying them in the most splendid colors, and embellishing them with the sublimest imagery, figures, and diction, the dignity of which is heightened and recommended by the superior elegance of the conclusion. Habakkuk is imitated by succeeding prophets, and his words are borrowed by the evangelical writers. Heb. x. 37, 38; Rom. i. 17; Gal. iii. 2; Acts xiii. 41; compare with Hab. i. 5.

ZEPHANIAH, who was contemporary with Jeremiah, prophesied in the reign of Josiah king of Judah; and, from the idolatry which he describes as prevailing at that time, it is probable that his prophecies were delivered before the last reformation made by that pious prince, A. M. 3381. The account which Zephaniah and Jeremiah give of the idolatries of their age is so similar that St. Isidore asserts that Zephaniah abridged the descriptions of Jeremiah. But it is more probable that the prophecies of Zephaniah were written some years before those of his contemporary; for Jeremiah seems to represent the abuses as partly removed which Zephaniah describes as partial and excessive. In the first chapter Zephaniah denounces the wrath of God against the idolaters who worshipped Baal and the host of heaven, and against the violent and deceitful. In the second he threatens destruction to the Philistines, the Moabites, the Ammonites, and Ethiopians; and describes the fate of Nineveh in emphatic terms. In the third he inveighs against the pollutions and oppressions of the Jews; and concludes with the promise, 'That a remnant would be saved, and that multiplied blessings would be bestowed upon the penitent.' The style of Zephaniah is poetical, but is not distinguished by any peculiar elegance or beauty, though generally animated and impressive.

HAGGAI was the first who flourished among the Jews after the Babylonish captivity. He began to prophesy in the second year of Darius Hystaspis, about 520 years B. C. The intention of his prophecy was to encourage the dispirited Jews to proceed with the building of the temple. The only prediction mentioned refers to the Messiah, who, the prophet assures his countrymen, would fill the new temple with glory. So well was this prediction understood by the Jews that they looked with earnest expectation for the Messiah's appearing in this temple till it was destroyed by the Romans. But, as the victorious Messiah whom they expected did not appear, they have since applied the prophecy to a third temple, which they hope to see reared in some future period. The style of Haggai, in the opinion of Dr. Lowth, is prosaic. Dr. Newcome thinks that a great part of it is poetical.

ZECCHARIAH was undoubtedly a contemporary of Haggai, and began to prophesy two months after him, in the eighth month of the second year of Darius Hystaspis, A. M. 3484, being also commissioned to exhort the Jews to proceed in the building of the temple, after the interruption which the work had suffered. We are informed by Ezra (vi. 14) that the Jews prospered through the prophesying of Zechariah and Haggai.

Zechariah begins with general exhortations to his countrymen, exciting them to repent from the evil ways of their fathers, whom the prophets had admonished in vain. He describes angels of the Lord interceding for mercy on Jerusalem and the desolate cities of Judah, which had experienced the indignation of the Most High for seventy years, while the neighbouring nations were at peace. He declares that the house of the Lord should be built in Jerusalem, and that Zion should be comforted. The prophet then represents the increase and prosperity of the Jews under several typical figures. He describes the establishment of the Jewish government, and the coming of the Messiah. He admonishes those who observed solemn fasts without due contrition, to execute justice, mercy, and compassion, every man to his brother; not to oppress the widow nor the fatherless, the stranger nor the poor. He promises that God would again show favor to Jerusalem; that their mournful fasts should be turned into cheerful feasts; and that the church of the Lord should be enlarged by the accession of many nations. The twelfth verse of the eleventh chapter of this book, which exhibits a prophetic description of some circumstances afterwards fulfilled in our Saviour, appears to be cited by St. Matthew (xxvii. 9, 10) as spoken by Jeremiah; and as the eleventh, twelfth, and thirteenth chapters have been thought to contain some particulars more suitable to the age of Jeremiah than to that of Zechariah, some learned writers are of opinion that they were written by the former prophet, and have been, from similarity of subject, joined by mistake to those of Zechariah. But others are of opinion that St. Matthew might allude to some traditional prophecy of Jeremiah, or, what is more probable, that the name of Jeremiah was substituted, by mistake, in place of Zechariah. The twelfth, thirteenth, and fourteenth chapters, contain prophecies which refer entirely to the Christian dispensation; the circumstances attending which he describes with a clearness which indicated their near approach. The style of Zechariah is so similar to that of Jeremiah that the Jews were accustomed to remark that the spirit of Jeremiah had passed into him. He is generally prosaic till towards the conclusion of his work, when he becomes more elevated and poetical. The whole is beautifully connected by easy transitions, and present and future scenes are blended with the greatest delicacy.

MALACHI was the last prophet that flourished under the Jewish dispensation; but neither the time in which he lived, nor any particulars of his history, can now be ascertained. It is even uncertain whether the word מלאכי, Malachi, be a proper name, or denote, as the Septuagint have rendered it, his angel, that is, 'the angel of the

Lord.' Origen supposed that Malachi was an angel incarnate, and not a man. As it appears, from the concurring testimony of all the ancient Jewish and Christian writers, that the light of prophecy expired in Malachi, we may suppose that the termination of his ministry coincided with the accomplishment of the first seven weeks of Daniel's prophecy, which was the period appointed for sealing the vision and prophecy. This, according to Prideaux, took place in A. M. 3595; but, according to bishop Lloyd, in A. M. 3607, twelve years later. Whatever reckoning we prefer, it must be allowed that Malachi completed the canon of the Old Testament 400 years B. C. It appears certain that Malachi prophesied under Nehemiah, and after Haggai and Zechariah, at a time when great disorders remained among the priests and people of Judah, which are reproved by Malachi. He inveighs against the priests (i. 6, &c.; ii. 1, 2, &c.); he reproaches the people with having taken strange wives (ii. 11); he reproves them for their inhumanity towards their brethren (ii. 10, iii. 5); their too frequently divorcing their wives; their neglect of paying their tithes and first fruits (Mal. iii. 13). He seems to allude to the covenant that Nehemiah renewed with the Lord (iii. 10, and ii. 4, 5, &c.), assisted by the priests and the chief of the nation. He speaks of the sacrifice of the new law, and of the abolition of those of the old, in chap. i. 10—13. He declares that the Lord was weary with the impiety of Israel; and assures them that the Lord whom they sought should suddenly come to his temple, preceded by the messenger of the covenant, who was to prepare his way; that the Lord, when he appeared, should purify the sons of Levi from their unrighteousness, and refine them as metal from the dross; and that then the offering of Judah, the spiritual sacrifice of the heart, should be pleasant to the Lord. The prophet, like one who was delivering a last message, denounces destruction against the impenitent in emphatic and alarming words. He encourages those who feared the name of the Lord with the animating promise, that the 'Sun of Righteousness should arise with salvation in his rays,' and render them triumphant over the wicked. And now that prophecy was to cease, and miracles were no more to be performed till the coming of the Messiah—now that the Jews were to be left to the guidance of their own reason, and the written instructions of their prophets—Malachi exhorts them to remember the law of Moses, which the Lord had revealed from Horeb for the sake of all Israel. At length he seals up the prophecies of the Old Testament, by predicting the commencement of the new dispensation, which should be ushered in by John the Baptist, with the power and spirit of Elijah; who should turn the hearts of fathers and children to repentance; but, if his admonitions should be rejected, that the Lord would smite the land with a curse.

PART II.

OF THE NEW TESTAMENT.

INTRODUCTION.—*Of the authenticity and inspiration of the Scriptures of the New Testament.*—The collection of writings composed after the

ascension of Christ, and acknowledged by his followers to be divine, is known in general by the name of *Καλη Διαθηκη*. This title, though neither given by divine command nor applied to these writings by the apostles, was adopted in a very early age, though the precise time of its introduction is uncertain, it being justified by several passages in Scripture, and warranted by the authority of St. Paul in particular, who calls the sacred books before the time of Christ *παλαια διαθηκη*. Even long before that period, either the whole of the Old Testament, or the five books of Moses, were entitled *βιβλιον διαθηκης*, or book of the covenant; 1 Mac. i. 57.

As the word *διαθηκη* admits of a two-fold interpretation, we may translate this title either the New Covenant or the New Testament. The former translation must be adopted, if respect be had to the texts of Scripture from which the name is borrowed, since those passages evidently convey the idea of a covenant; and, besides, a being capable of death can neither have made an old, nor make a new testament. It is likewise probable that the earliest Greek disciples, who made use of this expression, had no other notion in view than that of covenant. We, on the contrary, are accustomed to give this sacred collection the name of Testament; and since it would be not only improper, but even absurd, to speak of the Testament of God, we commonly understand the Testament of Christ; an explanation which removes but half the difficulty, since the new only, and not the old, had Christ for its testator.

In stating the evidence for the truth of Christianity, there is nothing more worthy of consideration than the authenticity of the books of the New Testament. This is the foundation on which all other arguments rest; and, if it is solid, the Christian religion is fully established. The proofs for the authenticity of the New Testament have this peculiar advantage that they are plain and simple, and involve no metaphysical subtleties. Every man who can distinguish truth from falsehood must see their force; and if there are any so blinded by prejudice, or corrupted by licentiousness, as to attempt by sophistry to elude them, their sophistry will be easily detected by every man of common understanding who has read the historical evidence with candor and attention. Instead, therefore, of declaiming against the infidel, we solicit his attention to this subject, convinced that, where truth resides, it will shine with so constant and clear a light that the combined ingenuity of all the deists since the beginning of the world will never be able to extinguish or to obscure it. If the books of the New Testament are really genuine, opposition will incite the Christian to bring forward the evidence; and thus, by the united efforts of the deist and the Christian, the arguments will be stated with all the clearness and accuracy of which they are susceptible in so remarkable a degree. It is surprising that the enemies of Christianity have not always made their first attacks in this quarter; for if they admit that the writings of the New Testament are as ancient as we affirm, and composed by the persons to

whom they are ascribed, they must allow, if they reason fairly, that the Christian religion is true.

The apostles allude frequently in their epistles to the gift of miracles, which they had communicated to the Christian converts by the imposition of hands, in confirmation of the doctrine delivered in their speeches and writings, and sometimes to miracles which they themselves had performed. Now, if these epistles are really genuine, it is hardly possible to deny those miracles to be true. The case is here entirely different from that of an historian, who relates extraordinary events in the course of his narrative, since either credulity or an actual intention to deceive may induce him to describe as true a series of falsehoods respecting a foreign land or distant period. Even to the evangelists might an adversary of the Christian religion make this objection: but to write to persons with whom we stand in the nearest connexion, 'I have not only performed miracles in your presence, but have likewise communicated to you the same extraordinary endowments,' to write in this manner, if nothing of the kind had ever happened, would require such an incredible degree of effrontery that he who possessed it would not only expose himself to the utmost ridicule, but, by giving his adversaries the fairest opportunity to detect his imposture, would ruin the cause which he attempted to support.

St. Paul's First Epistle to the Thessalonians is addressed to a community, to which he had preached the gospel only three Sabbath days, when he was forced to quit it by the persecution of the populace. In this epistle he appeals to the miracles which he had performed, and to the gifts of the Holy Spirit which he had communicated. Now is it possible, without forfeiting all pretensions to common sense, that, in writing to a community which he had lately established, he could speak of miracles performed, and gifts of the Holy Ghost communicated, if no member of the society had seen the one, or received the other? To suppose that an impostor could write to the converts or adversaries of the new religion such epistles as these, with a degree of triumph over his opponents, and yet maintain his authority, implies ignorance and stupidity hardly to be believed. Credulous as the Christians have been in later ages, and even so early as the third century, no less severe were they in their enquiries, and guarded against deception, at the introduction of Christianity. This character is given them even by Lucian, a writer of the second century, who vented his satire not only against certain Christians, who had supplied Peregrius with the means of subsistence, but also against heathen oracles and pretended wonders. He relates of his impostor (Pseudomantis) that he attempted nothing supernatural in the presence of the Christians and Epicureans. This Pseudomantis exclaims before the whole assembly, 'away with the Christians, away with the Epicureans, and let those only remain who believe in the Deity (*πιστευαντες τω Θεω*)!' upon which the populace took up stones to drive away the suspicious; while the other philosophers, Pythagoreans, Platonists, and Stoics, as credu-

lous friends and protectors of the cause, were permitted to remain.

It is readily acknowledged that the arguments drawn from the authenticity of the New Testament only establish the truth of the miracles performed by the apostles, and are not applicable to the miracles of our Saviour; yet, if we admit the three first gospels to be genuine, the truth of the Christian religion will be proved from the prophecies of Jesus. For if these gospels were composed by Matthew, Mark, and Luke, at the time in which all the primitive Christians affirm, that is, previous to the destruction of Jerusalem, they must be inspired; for they contain a circumstantial prophecy of the destruction of Jerusalem, and determine the period at which it was accomplished. Now it was impossible that human sagacity could foresee that event; for when it was predicted nothing was more improbable. The Jews were resolved to avoid an open rebellion, well knowing the greatness of their danger, and submitted to the oppressions of their governors in the hope of obtaining redress from the court of Rome. The circumstance which gave birth to these misfortunes is so trifling in itself, that, independent of its consequences, it would not deserve to be recorded. In the narrow entrance to a synagogue in Cæsarea some person had made an offering of birds, merely with a view to irritate the Jews. The insult excited their indignation, and occasioned the shedding of blood. This seemingly trifling circumstance, ordained by Him without whose permission a sparrow cannot fall to the ground, gave rise to a bloody war, which ended in the fulfilment of our Saviour's prophecy, by the total destruction of Jerusalem, and the dreadful massacre of its inhabitants. See Jews. Florus, who was then procurator of Judea, converted this private quarrel into public hostilities, and compelled the Jewish nation to rebel, contrary to its wish and resolution, to avoid what the Jews had threatened, an impeachment before the Roman emperor, for his excessive cruelties. But, even after this rebellion had broken out, the destruction of the temple was a very improbable event. It was not the practice of the Romans to destroy the magnificent edifices of the nations which they subdued; and, of all the Roman generals, none was more unlikely to demolish so ancient and august a building as Titus Vespasian. So important then is the question, whether the books of the New Testament be genuine? that the arguments which prove their authenticity prove also the truth of the Christian religion. Let us now consider the evidence which proves the authenticity of the New Testament.

We receive the books of the New Testament as the genuine works of Matthew, Mark, Luke, John, and Paul, for the same reason that we receive the writings of Xenophon, Polybius, Plutarch, Cæsar, and Livy. We have the uninterrupted testimony of all ages, and we have no reason to suspect imposition. This argument is much stronger when applied to the books of the New Testament than when applied to any other writings; for they were addressed to large societies, were often read in their presence, and acknowledged by them to be the writings of the

apostles. Whereas, the most eminent profane writings which still remain were addressed only to individuals, or to no persons at all: and we have the authority to affirm that they were read in public; on the contrary, we know that a liberal education was uncommon; books were scarce, and the knowledge of them was confined to a few individuals in every nation.

The New Testament was read over three quarters of the world, while profane writers were limited to one nation or to one country. An uninterrupted succession of writers from the apostolic ages to the present time quote the sacred writings, or make allusions to them; and these quotations and allusions are made not only by friends but by enemies. This cannot be asserted of even the best classic authors. And it is highly probable that the translations of the New Testament were made so early as the second century; and in a century or two after they became very numerous. After this period it was impossible to forge new writings, or to corrupt the sacred text, unless we can suppose that men of different nations, of different sentiments, and different languages, and often exceedingly hostile to one another, should all agree in one forgery. This is so strong that, if we deny the authenticity of the New Testament, we may with a thousand times more propriety reject all the other writings in the world; we may even throw aside human testimony itself. But, as this subject is of great importance, we shall consider it at more length; and, to enable our readers to judge with greater accuracy, we shall state, from the valuable work of Michaelis, as translated by the learned bishop Marsh, the reasons which may induce a critic to suspect a work to be spurious:—

1. When doubts have been made, from its first appearance in the world, whether it proceeded from the author to whom it is ascribed.
2. When the immediate friends of the pretended author, who were able to decide upon the subject, have denied it to be his production.
3. When a long series of years has elapsed after his death, in which the book was unknown, and in which it must unavoidably have been mentioned and quoted, had it really existed.
4. When the style is different from that of his other writings, or, in case no other remain, different from that which might reasonably be expected.
5. When events are recorded which happen later than the time of the pretended author.
6. When opinions are advanced which contradict those he is known to maintain in his other writings: though this latter argument alone leads to no positive conclusion, since every man is liable to change his opinion, or through forgetfulness to vary in the circumstances of the same relation, of which Josephus, in his *Antiquities* and *Wars of the Jews*, affords a striking example.

1. But it cannot be shown that any one doubted of the authenticity of the New Testament in the period in which it first appeared.
2. No ancient accounts are on record whence we may conclude it to be spurious.
3. No considerable period elapsed after the death of the apostles, in which the New Testament was unknown; but,

on the contrary, it is mentioned by their very contemporaries, and the accounts of it in the second century are still more numerous.

4. No argument can be brought in its disfavor from the nature of the style, it being exactly such as might be expected from the apostles, not Attic but Jewish Greek.
5. No facts are recorded which happened after their death.
6. No doctrines are maintained which contradict the known tenets of the authors, since, beside the New Testament, no writings of the apostles exist. But, to the honor of the New Testament be it spoken, it contains numerous contradictions to the tenets and doctrines of the fathers in the second and third century, whose morality was different from that of the gospel, which recommends fortitude and submission to unavoidable evils, but not that enthusiastic ardor for martyrdom for which these centuries are distinguished; it alludes to ceremonies which in the following ages were either in disuse or totally unknown; all which circumstances infallibly demonstrate that the New Testament is not a production of either of those centuries. We shall now consider the positive evidences for the authenticity of the New Testament. These may be arranged under the three following heads: i. The impossibility of a forgery, arising from the nature of the thing itself. ii. The ancient Christian, Jewish, and Heathen testimony in its favor. iii. Its own internal testimony.

- i. *The impossibility of a forgery, arising from the nature of the thing itself*, is evident. It is impossible to establish forged writings as authentic in any place where there are persons strongly inclined and well qualified to detect the fraud. Now the Jews were the most violent enemies of Christianity. They put the founder of it to death; they persecuted his disciples with implacable fury; and they were anxious to stifle the new religion in its birth. If the writings of the New Testament had been forged, would not the Jews have detected the imposture? Is there a single instance on record where a few individuals have imposed a history upon the world against the testimony of a whole nation? Would the inhabitants of Palestine have received the gospels, if they had not had sufficient evidence that Jesus Christ really appeared among them, and performed the miracles ascribed to him? Or would the churches of Rome or of Corinth have acknowledged the epistles addressed to them as the genuine works of Paul, if Paul had never preached among them? We might as well think to prove that the history of the Reformation is the invention of historians; and that no revolution happened in Great Britain during the seventeenth century.

- ii. The second kind of evidence which we produce, to prove the authenticity of the New Testament, is *the testimony of ancient writers, Christians, Jews, and Heathens*. In reviewing the evidence of testimony, it will not be expected that we should begin at the present age, and trace backwards the authors who have written on this subject to the first ages of Christianity. This indeed, though a laborious task, could be performed in the most complete manner; the whole series of authors, numerous in

every age, who have quoted from the books of the New Testament, written commentaries upon them, translated them into different languages, or who have drawn up a list of them, could be exhibited so as to form such a perfect body of evidence that we imagine even a jury of deists would find it impossible, upon a deliberate and candid examination, to reject or disbelieve it. We do not, however, suppose that scepticism has yet arrived at so great a height as to render such a tedious and circumstantial evidence necessary. Passing over the intermediate space, therefore, we shall ascend at once to the fourth century, when the evidence for the authenticity of the New Testament was fully established, and trace it back from that period to the age of the apostles. This method of stating the evidence will appear more natural, and will afford more satisfaction, than that which has been usually adopted.

It is surely more natural, when we investigate the truth of any fact which depends on a series of testimony, to begin with those witnesses who lived nearest the present age, and whose characters are best established. In this way we shall learn from themselves the foundation of their belief, and the characters of those from whom they derived it; and thus we ascend till we arrive at its origin. This mode of investigation will give more satisfaction to the deist than the usual way; and we believe no Christian, who is confident of the goodness of his cause, will be unwilling to grant any proper concessions. The deist will thus have an opportunity of examining, separately, what he will consider as the weakest parts of the evidence, those which are exhibited by the earliest Christian writers, consisting of expressions, and not quotations, taken from the New Testament. The Christian, on the other hand, ought to wish that these apparently weak parts of the evidence were distinctly examined, for they will afford an irrefragable proof that the New Testament was not forged; and, should the deist reject the evidence of those early writers, it will be incumbent on him to account for the origin of the Christian religion, which he will find more difficult than to admit the common hypothesis.

In the fourth century we could produce the testimonies of numerous witnesses to prove that the books of the New Testament existed at that time; but it will be sufficient to mention their names, the time in which they wrote, and the substance of their evidence. This we shall present in a concise form in the following table, taken from Jones's *New and Full Method of establishing the canon of the New Testament*; but condensed to save room.

It exhibits, 1. The names of the writers. 2. The times in which they lived. 3. The variation or agreement of their catalogues with ours now received; and, 4. The books in which these catalogues are.

I. Athanasius, bishop of Alexandria. A. D. 315. The same perfectly with ours now received. *Fragment. Epist. Testal. tom. 2, et in Synops. tom. 1.*

II. Cyril, bishop of Jerusalem, A. D. 340. The same with ours, only the Revelation is omitted. *Catech. IV. sect. ult. p. 101.*

III. The bishops assembled in the council of Laodicea. A. D. 364. The Revelation is omitted. Canon. LIX. N. B. The canons of this council were not long afterwards received into the body of the canons of the universal church.

IV. Epiphanius, bishop of Salamis in Cyprus. A. D. 370. The same with ours now received. *Hæres. 76. cont. Anom. p. 399.*

V. Gregory Nazianzen, bishop of Constantinople, A. D. 375. Omits the Revelation. *Carm. de veris et genuin. Scriptur.*

VI. Philastrius, bishop of Brixia in Venice. A. D. 380. The same with ours now received; except that he mentions only thirteen of St. Paul's epistles (omitting very probably the Epistle to the Hebrews), and leaves out the Revelations. *Lib. de Hæres. Numb. 87.*

VII. Jerome. A. D. 382. The same with ours, except that he speaks dubiously of the Epistle to the Hebrews; though in other parts of his writings he receives it as canonical. *Ep. ad Paulin. 83. Tract. 6. p. 2.* Also commonly prefixed to the Latin vulgar.

VIII. Ruffin, presbyter of Aquilegium. A. D. 390. It perfectly agrees with ours. *Expos. in Symb. Apostol. sect. 36. int. Ep. Hieron. Par. 1. Trac. 3, p. 110, et inter. Op. Cypr. p. 575.*

IX. Austin, bishop of Hippo in Africa. A. D. 394. It perfectly agrees with ours. *De Doctrin. Christ. 1, 2, c. 8. Tom. Op. 3. p. 25.*

X. The XLIV. bishops assembled in the third council of Carthage. St. Austin was present at it. It perfectly agrees with ours. *Vid. Canon. XLVII. et cap. ult.*

We now go back to Eusebius, who wrote about the year 315, and whose catalogue of the books of the New Testament we shall mention at more length. 'Let us observe,' says he, 'the writings of the apostle John, which are uncontradicted; and, first of all, must be mentioned, as acknowledged of all, the gospel according to him, well known to all the churches under heaven.' The author then proceeds to relate the occasions of writing the gospels, and the reasons for placing St. John's the last, manifestly speaking of all the four as equal in their authority, and the certainty of their original. The second passage is taken from a chapter, the title of which is 'Of the Scriptures universally acknowledged, and of those that are not such.' Eusebius begins his enumeration in the following manner: 'In the first place are to be ranked the sacred four Gospels, then the book of the Acts of the Apostles; after that are to be reckoned the Epistles of St. Paul; in the next place, that called the first Epistle of John and the Epistle of Peter are to be esteemed authentic: after this is to be placed, if it be thought fit, the Revelation of St. John; about which we shall observe the different opinions at proper seasons. Of the controverted, but yet well known or approved by the most, are that called the Epistle of James and that of Jude the second of Peter, and the second and third of John, whether they were written by the evan

gelist, or by another of the same name.' He then proceeds to reckon up five others, not in our canon, which he calls in one place spurious, in another controverted; evidently meaning the same thing by these two words. He uses still stronger terms with respect to the pretended gospels of Peter, and Thomas, and Matthias, and some others, which he says are altogether absurd and impious.

A. D. 290, Victorin bishop of Pettaw in Germany, in a commentary upon this text of the revelation, 'The first was like a lion, the second was like a calf, the third like a man, and the fourth like a flying eagle,' makes out that by the four creatures are intended the four gospels; and, to show the propriety of the symbols, he recites the subject with which the evangelist opens his history. The explication is fanciful, but the testimony positive. He also expressly cites the Acts of the Apostles.

A. D. 230, Cyprian bishop of Carthage gives the following testimony: 'The church,' says this father, 'is watered like Paradise by four rivers, that is, by four gospels.' The Acts of the Apostles are also frequently quoted by Cyprian under that name, and under the name of the Divine Scriptures. In his various writings are such frequent and copious citations of Scripture as to place this part of the testimony beyond controversy. Nor is there, in the works of this eminent African bishop, one quotation of a spurious or apocryphal Christian writing.

A. D. 210, Origen is a most important evidence. Nothing can be more preeminent upon the subject now under consideration, and, from a writer of his learning and information, nothing more satisfactory, than the declaration of Origen, preserved in an extract of his works by Eusebius: 'That the four gospels alone are received without dispute by the whole church of God under heaven:' to which declaration is immediately subjoined a brief history of the respective authors, to whom they were then, as they are now, ascribed. The sentiments expressed concerning the gospels in all the works of Origen which remain entirely correspond with the testimony here cited. His attestation to the Acts of the Apostles is no less positive; 'And Luke also once more sounds the trumpet relating the Acts of the Apostles.' That the Scriptures were then universally read is plainly affirmed by this writer in a passage in which he is repelling the objections of Celsus, 'That it is not in private books, or such as are read by few only, and those studious persons, but in books read by every body, that it is written the invisible things of God, from the creation of the world are clearly seen, being understood by things that are made.' It is to no purpose to single out quotations of Scripture from such a writer as this. We might as well make a selection of the quotations of Scripture in Dr. Clarke's sermons. They are so thickly sown in the works of Origen, that Dr. Mill says, 'If we had all his works remaining, we should have before us almost the whole text of the Bible.'

A. D. 194, Tertullian exhibits the number of the gospels then received, the names of the evangelists, and their proper designations, in one short sentence. 'Among the apostles, John and

Matthew teach us the faith; among apostolical men, Luke and Mark refresh it.' The next passage to be taken from Tertullian affords as complete an attestation to the authenticity of the gospels as can be well imagined. After enumerating the churches which had been founded by Paul at Corinth, in Galatia, at Philippi, Thessalonica, and Ephesus, the church of Rome established by Peter and Paul, and other churches derived from John, he proceeds thus: 'I say then that with them, but not with them only which are apostolical, but with all who have fellowship with them in the same faith, is that gospel of Luke received from its first publication, which we so zealously maintain;' and presently afterwards adds, 'The same authority of the apostolical churches will support the other gospels, which we have from them, and according to them, I mean John's and Matthew's, although that likewise which Mark published may be said to be Peter's, whose interpreter Mark was.' In another place Tertullian affirms that the three other gospels, as well as St. Luke's, were in the hands of the churches from the beginning. This noble testimony proves incontestably the antiquity of the gospels, and that they were universally received; that they were in the hands of all, and had been so from the first. And this evidence appears not more than 150 years after the publication of the books. Dr. Lardner observes 'that there are more and larger quotations of the small volume of the New Testament, in this one Christian author, than there are of all the works of Cicero, in writers of all characters, for several ages.'

A. D. 178, Irenæus was bishop of Lyons, and is mentioned by Tertullian, Eusebius, Jerome, and Photius. In his youth he had been a disciple of Polycarp, who was a disciple of John. He asserts, of himself and his contemporaries, that they were able to reckon up in all the principal churches the succession of bishops to their first institution. His testimony to the four gospels and Acts of the Apostles is express and positive. 'We have not received,' says Irenæus, 'the knowledge of the way of our salvation by any others than those by whom the gospel has been brought to us. Which gospel they first preached, and afterwards, by the will of God, committed to writing, that it might be for time to come the foundation and pillar of our faith. For after that our Lord rose from the dead, and they (the apostles) were endowed from above with the power of the Holy Ghost coming down upon them, they received a perfect knowledge of all things. They then went forth to all the ends of the earth, declaring to men the blessing of heavenly peace, having all of them, and every one alike, the gospel of God. Matthew then, among the Jews, wrote a gospel in their own language, while Peter and Paul were preaching the gospel at Rome, and founding a church there. And, after their exit, Mark also, the disciple and interpreter of Peter, delivered to us in writing the things that had been preached by Peter. And Luke, the companion of Paul, put down in a book the gospel preached by him (Paul). Afterwards John, the disciple of the Lord, who also leaned upon his breast, likewise published a gospel while he dwelt at Ephesus in

Asia. Irenæus then relates how Matthew begins his gospel, how Mark begins and ends his; and gives the supposed reasons for doing so. He enumerates at length all the passages of Christ's history in Luke, which are not found in any of the other evangelists. He states the particular design with which St. John composed his gospel, and accounts for the doctrinal declarations which precede the narrative. If any modern divine should write a book upon the genuineness of the gospels, he could not assert it more expressly, or state their original more distinctly, than Irenæus hath done within little more than 100 years after they were published.

Respecting the book of the Acts of the Apostles, and its author, the testimony of Irenæus is no less explicit. Referring to the account of St. Paul's conversion and vocation, in the ninth chapter of that book, 'Nor can they,' says he, meaning the parties with whom he argues, 'show that he is not to be credited, who has related to us the truth with the greatest exactness.' In another place, he has actually collected the several texts, in which the writer of the history is represented as accompanying St. Paul, which led him to exhibit a summary of almost the whole of the last twelve chapters of the book.

According to Lardner, Irenæus quotes twelve of Paul's epistles, naming their author; also the first epistle of Peter, the two first epistles of John, and the Revelation. The epistles of Paul which he omits are those addressed to Philemon and the Hebrews. Eusebius says that he quotes the epistle to the Hebrews, though he does not ascribe it to Paul. The work, however, is lost.

A. D. 172, Tatian, who is spoken of by Clement Alexandrinus, Origen, Eusebius, and Jerome, composed a harmony of the four gospels, which he called *Diatessaron*, of the four. This title, as well as the work, is remarkable, because it shows that then as well as now there were four and only four, gospels in general use among Christians.

A. D. 170, the churches of Lyons and Vienne in France sent an account of the sufferings of their martyrs to the churches of Asia and Phrygia, which has been preserved entire by Eusebius. And what carries in some measure the testimony of these churches to a higher age is, that they had now for their bishop Pothinus, who was ninety years old, and whose early life consequently must have immediately followed the times of the apostles. In this epistle are exact reference to the gospels of Luke and John, and to the Acts of the Apostles. The form of references is the same as in all the preceding articles. That from St. John is in these words: 'Then was fulfilled that which was spoken by the Lord, that whosoever killeth you, will think that he doth God service.' Distinct references are also made to other books, viz. Acts, Romans, Ephesians, Philippians, 1 Timothy, 1 Peter, 1 John, Revelation.

A. D. 140, Justin Martyr composed several books, which are mentioned by his disciple Tatian, by Tertullian, Methodius, Eusebius, Jerome, Epiphanius, and Photius. In his writings between twenty and thirty quotations from the gospels and Acts of the Apostles are reckoned

up, which are clear, distinct, and copious; if each verse be counted separately, a much greater number; if each expression still more. Jones, in his book on the Canon of the New Testament, ventures to affirm that he cites the books of which it consists, particularly of the four gospels, above 200 times. We meet with quotations of three of the gospels within the compass of half a page, viz. from Matthew xxv. 41, Luke x. 19, and Mark viii. 31. But all the references in Justin are made without mentioning the author; which proves that these books were perfectly well known, and that there were no other accounts of Christ then extant, or at least no others so received and credited as to make it necessary to add any marks of distinction. But, although Justin mentions not the author's names, he calls the books *Memoirs* composed by the Apostles; *Memoirs* composed by the Apostles and their Companions; which descriptions, the latter especially, exactly suit the titles which the Gospels and Acts of the Apostles now bear.

He informs us, in his first apology, that the *Memoirs* of the Apostles, or the writings of the prophets, are read according as the time allows; and, when the reader has ended, the president makes a discourse, exhorting to the imitation of such excellent things. A few short observations will show the value of this testimony. 1. The *Memoirs* of the Apostles, Justin in another place expressly tells us, are what are called gospels. And that they were the gospels which we now use is made certain by Justin's numerous quotations of them, and his silence about any others. 2. He describes the general usage of the Christian church. 3. He does not speak of it as recent or newly instituted, but in the terms in which men speak of established customs. Justin also makes such allusions to the following books as shows that he had read them: Romans, 1 Corinthians, Galatians, Ephesians, Philippians, Colossians, 2 Thessalonians, Hebrews, 2 Peter; and he ascribes the Revelation to John, the apostle of Christ.

A. D. 116, Papias, a hearer of John, and companion of Polycarp, as Irenæus attests, and of the apostolical age, as all agree, in a passage quoted by Eusebius from a work now lost, expressly ascribes the two first gospels to Matthew and Mark; and in a manner which proves that these gospels must have publicly borne the names of these authors at that time, and probably long before; for Papias does not say that one gospel was written by Matthew, and another by Mark; but, assuming this as perfectly well known, he tells us from what materials Mark collected his account, viz. from Peter's preaching, and in what language Matthew wrote, viz. in Hebrew. Whether Papias was well informed in this statement or not, to the point for which this testimony is produced, namely, that these books bore these names at this time, his authority is complete. Papias himself declares that he received his accounts of Christianity from those who were acquainted with the apostles, and that those accounts which he thus received from the older Christian, and had committed to memory, he inserted in his books. He farther adds that he was very solicitous to obtain

every possible information, especially to learn what the apostles said and preached, valuing such information more than what was written in books.

A. D. 108, Polycarp was bishop of Smyrna, and disciple of John the Apostle. This testimony concerning Polycarp is given by Irenæus, who in his youth had seen him. 'I can tell the place,' saith Irenæus, 'in which the blessed Polycarp sat and taught, and his going out and coming in, and the manner of his life, and the form of his person, and the discourses he made to the people, and how he related his conversation with John and others who had seen the Lord, and how he related their sayings, and what he had heard concerning the Lord, both concerning his miracles and his doctrines, as he had received them from the eye-witnesses of the word of life; all which Polycarp related agreeable to the Scriptures.'

Of Polycarp, whose proximity to the age and country and persons of the apostles is thus attested, we have one undoubted epistle remaining; which, though a short performance, contains nearly forty clear allusions to the books of the New Testament. See POLYCARP. This is strong evidence of the respect which was paid to them by Christians of that age. Among these, although the writings of St. Paul are more frequently used by Polycarp than other parts of Scripture, there are copious allusions to the gospel of St. Matthew, some passages in the gospels both of Matthew and Luke, and some which more nearly resemble the words in Luke. He thus fixes the authority of the Lord's prayer, and the use of it among Christians. If, therefore, we pray the Lord to forgive us, we ought also to forgive. And again, With supplication beseeching the all-seeing God, not to lead us into temptation.

In another place he quotes the words of our Lord: 'But remember what the Lord said, teaching, Judge not, that ye be not judged. Forgive, and ye shall be forgiven; be ye merciful, that ye may obtain mercy; with what measure ye mete, it shall be measured to you again.' Supposing Polycarp to have had these words from the books in which we now find them, it is manifest that these books were considered by him, and by his readers, as he thought, as authentic accounts of Christ's discourses, and that this point was incontestable. He quotes also the following books, the first of which he ascribes to St. Paul: 1 Corinthians, Ephesians, Philippians, 1 and 2 Thessalonians; and makes evident references to others, particularly to Acts, Romans, 2 Corinthians, Galatians, 1 Timothy, 2 Timothy, 1 Peter, 1 John.

Ignatius, as it is testified by ancient Christian writers, became bishop of Antioch about thirty-seven years after Christ's ascension: and therefore, from his time and place, and station, it is probable that he had known and conversed with many of the apostles. See IGNATIUS. Epistles of Ignatius are referred to by Polycarp his contemporary. Passages found in the epistles now extant under his name are quoted by Irenæus, A. D. 178, by Origen, A. D. 230; and the occasion of writing them is fully explained by Eusebius and Jerome. What are called the smaller

epistles of Ignatius are generally reckoned the same which were read by Irenæus, Origen, and Eusebius. They are admitted as genuine by Vossius, and have been proved to be so by bishop Pearson, with a force of argument which seems to admit of no reply. In these epistles are undoubted allusions to Matt. iii. 15, xi. 16; to John iii. 8; and their venerable author, who often speaks of St. Paul in terms of the highest respect, once quotes his epistle to the Ephesians by name.

Near the conclusion of the epistle to the Romans, St. Paul, amongst others, sends the following salutation: 'Salute Asyncritus, Phlegon, Hermas, Patrobas, Hermes, and the brethren which are with them.' Of Hermas, who appears in this catalogue of Roman Christians as contemporary with St. Paul, there is a book still remaining, the authenticity of which cannot be disputed. See HERMAS. It is called the Shepherd or Pastor of Hermas. Its antiquity is incontestable from the quotations of it in Irenæus, A. D. 178, Clement of Alexandria, A. D. 194, Tertullian, A. D. 200, Origen, A. D. 230. The notes of time extant in the epistle itself agree with its title, and with the testimonies concerning it, which intimate that it was written during the lifetime of Clement. In this piece are tacit allusions to St. Matthew's, St. Luke's, and St. John's gospels; that is to say, there are applications of thoughts and expressions found in these gospels, without citing the place or writer from which they were taken. In this form appear in Hermas the confessing and denying of Christ; the parable of the seed sown; the comparison of Christ's disciples to little children; the saying 'he that putteth away his wife, and marieth another, committeth adultery;' the singular expression, 'having received all power from his Father,' is probably an allusion to Matt. xxviii. 18, and Christ being the gate, or only way of coming 'to God,' is a plain allusion to John xiv. 6, x. 7, 9. There is also a probable allusion to Acts v. 32. The Shepherd of Hermas has been considered as a fanciful performance. This, however, is of no importance in the present case. We only adduce it as an evidence that the books to which it frequently alludes existed in the first century; and for this purpose it is satisfactory, as its authenticity has never been questioned.

A. D. 96, we have an epistle written by Clement, the fourth bishop of Rome, whom ancient writers, without any doubt, assert to have been the Clement whom St. Paul mentions, Philip. iv. 3, 'with Clement also, and other my fellow laborers, whose names are in the book of life.' This epistle is spoken of by the ancients as an epistle acknowledged by all; and, as Irenæus well represents its value, 'written by Clement, who had seen the blessed apostles and conversed with them, who had the preaching of the apostles still sounding in his ears, and their traditions before his eyes.' It is addressed to the church of Corinth; and, what alone may seem a decisive proof of its authenticity, Dionysius bishop of Corinth, about the year 170, i. e. about eighty or ninety years after the epistle was written, bears witness, 'that it had been usually read in that church from ancient times.' This

epistle affords, amongst others, the following valuable passages: 'especially remembering the words of the Lord Jesus, which he spake, teaching gentleness and long suffering;' for thus he said, 'Be ye merciful, that ye may obtain mercy; forgive, that it may be forgiven unto you,' &c. Again, 'Remember the words of the Lord Jesus; for he said, wo to that man by whom offences come; it were better for him that he had not been born,' &c. He ascribes the first epistle to the Corinthians to Paul, and makes such allusion to the following books as is sufficient to show that he had seen and read them: Acts, Romans, 2 Corinthians, Galatians, Ephesians, Philippians, Colossians, 1 Thessalonians, 1 Timothy, 2 Timothy, Titus, 1 Peter, 2 Peter. It may be said, as Clement has not mentioned the books by name, from which we assert these allusions or references are made, it is uncertain whether he refers to any books, or whether he received these expressions from the discourses and conversation of the apostles. Mr. Paley has given a very satisfactory answer to this objection: 1st. That Clement, in the very same manner, namely, without any mark of reference, uses a passage now found in the epistle to the Romans (chap. i. 29); which passage, from the peculiarity of the words that compose it, and from their order, it is manifest that he must have taken from the epistle. 2dly, That there are many sentences of St. Paul's first epistle to the Corinthians to be found in Clement's epistle, without any sign of quotation, which yet certainly are quotations; because it appears that Clement had St. Paul's epistle before him; for in one place he mentions it in terms too express to leave us in any doubt. 'Take into your hands the epistle of the blessed apostle Paul.' 3dly, That this method of adopting words of Scripture, without reference or acknowledgment, was a method in general use amongst the most ancient Christian writers. St. Paul himself quotes the heathen poet, Aratus, without naming him. See ARATUS. These analogies not only repel the objection, but cast the presumption on the other side; and afford a considerable degree of positive proof that the words in question have been borrowed from the places of Scripture in which we now find them. But take it the other way, that Clement had heard these words from the apostles or first teachers of Christianity; with respect to the precise point of our argument, viz. that the Scriptures contain what the apostles taught, this supposition may serve almost as well.

We have now traced the evidence to the times of the apostles; but we have not been anxious to draw it out to a great length, by introducing every thing. On the contrary, we have been careful to render it as concise as possible, that its force might be discerned at a glance. The evidence which has been stated is of two kinds. Till the time of Justin Martyr and Irenæus it consists chiefly of allusions, references, and expressions, borrowed from the books of the New Testament, without mentioning them by name. After the time of Irenæus it became usual to cite the sacred books, and mention the authors from which the citations were taken.

The only point of importance to be determined is, whether these references are a sufficient proof of the existence of the books to which they allude. This, we presume, will not be denied; especially in the present age, when it is so common to charge an author with plagiarism, if he happen to fall upon the same train of ideas, or express himself in a similar manner with authors who have written before him. We may farther affirm, that these tacit references afford a complete proof that those ancient writers had no intention of imposing a forgery upon the world. They prove the existence of the Christian religion, and of the apostolical writings, without showing any suspicious earnestness that men should believe them. Had these books been forged, those who wished to pass them upon the world would have been at more pains than the first Christians were to prove their authenticity. They acted the part of honest men; they believed them themselves, and they never imagined that others would suspect their truth.

It is a consideration of great importance, in reviewing the evidence which has been now stated, that the witnesses lived in different countries; Clemens flourished at Rome, Polycarp at Smyrna, Justin Martyr in Syria, Irenæus in France, Tertullian at Carthage, Origen at Alexandria, and Eusebius at Cæsarea. This proves that the books of the New Testament were equally well known in distant countries by men who had no intercourse with one another. The same thing is proved by testimonies, if possible, less exceptionable. The ancient heretics, whose opinions were sometimes grosser and more impious than those which any modern sectary has ventured to broach, and whose zeal in the propagation of them equalled that of the most flaming enthusiast of the seventeenth century, never called in question the authenticity of the books of the New Testament. When they met with any passage in the gospels or epistles which they could not reconcile to their own heretical notions, they either erased it, or denied that the author was inspired; but they nowhere contend that the book in which it stood was not written by the apostle or evangelist whose name it bore. Eusebius relates that the Ebionites rejected all the epistles of Paul, and called him an apostate, because he departed from the Levitical law; and they adopted as their rule of faith the Gospel of St. Matthew, though indeed they greatly corrupted it. This proves, therefore, that the Gospel according to Matthew was then published, and that St. Paul's epistles were then known.

Of the heretics who erased or altered passages to make the Scriptures agree with their doctrines, we may produce Marcion as an instance, who lived in the beginning of the second century. He lived in an age when he could have easily discovered if the writings of the New Testament had been forged; and as he was much incensed against the orthodox party, if such a forgery had been committed unquestionably he would not have failed to make the discovery, as it would have afforded the most ample means of revenge and triumph, and enabled him to establish his own opinions with less difficulty. But

his whole conduct shows clearly that he believed the writings of the New Testament to be authentic. He said that the Gospel according to S. Matthew, the Epistle to the Hebrews, with those of St. Peter and St. James, as well as the Old Testament in general, were writings not for Christians but for Jews. He published a new edition of the Gospel according to Luke, and the first ten epistles of Paul; in which it has been affirmed by Epiphanius that he altered every passage that contradicted his own opinions; but as many of these alterations are what modern critics call various readings, though we receive the testimony of Epiphanius, we must not rely upon his opinion. Dr. Loeffler wrote a dissertation vindicating Marcion from this charge. Hence it is evident that the books of the New Testament above-mentioned did then exist, and were acknowledged to be the works of the authors whose names they bear.

Dr. Lardner, in his General Review, sums up this head of evidence in the following words: 'Noetus, Paul of Samosata, Sabellius, Marcellus, Photinus, the Novatians, Donatists, Manicheans, Priscillianists, beside Artemon, the Audians, the Arians, and divers others, all received most or all the same books of the New Testament which the Catholics received; and agreed in a like respect for them as written by apostles or their disciples and companions.'

Celsus and Porphyry, both enemies of the Christian religion, are powerful witnesses for the antiquity of the New Testament. Celsus, who lived towards the end of the second century, not only mentions by name, but quotes passages from the books of the New Testament: and that the books to which he refers were no other than our present gospels is evident from the allusions to various passages still found in them. Celsus takes notice of the genealogies, which fixes two of these gospels; of the precepts, resist not him that injures you, and, if a man strike thee on the one cheek, offer to him the other also; of the woes denounced by Christ; of his predictions; of his saying that it is impossible to serve two masters; of the purple robe, the crown of thorns, and the reed which was put into the hand of Jesus; of the blood that flowed from his body upon the cross, a circumstance which is recorded only by John; and (what is *instar omnium* for the purpose for which we produce it) of the difference in the accounts given of the resurrection by the evangelists, some mentioning two angels at the sepulchre, others only one. It is extremely material to remark that Celsus not only perpetually referred to the accounts of Christ contained in the four gospels, but that he referred to no other accounts; that he founded none of his objections to Christianity upon any thing delivered in spurious gospels.

The testimony of Porphyry is still more important than that of Celsus. See PORPHYRY. He was born in 233, and died in 304, aged seventy-one. Unfortunately for the present age, says Michaelis, the mistaken zeal of the Christian emperors has banished his writings from the world; and every real friend of our religion would gladly give the works of one of the pious fathers to rescue those of Porphyry from the

flames. But Mr. Marsh, the learned and judicious translator of Michaelis, relates that, according to the accounts of Isaac Vossius, a MS. of the works of Porphyry is preserved in the Medicean library at Florence, but kept so secret that no one is permitted to see it. It is universally allowed that Porphyry is the most sensible, as well as the most severe adversary of the Christian religion that antiquity can produce. He was versed not only in history, but also in philosophy and politics. His acquaintance with the Christians was not confined to a single country; for he had conversed with them in Tyre, in Sicily, and in Rome. Enabled by his birth to study the Syriac, as well as the Greek authors, he was of all the adversaries to the Christian religion the best qualified to enquire into the authenticity of the sacred writings. He possessed therefore every advantage which natural abilities or a scientific education could afford, to discover whether the New Testament was a genuine work of the apostles and evangelists, or whether it was imposed upon the world after the decease of its pretended authors. But no trace of this suspicion is any where to be found in his writings. In the fragments, which still remain, mention is made of the gospels of St. Matthew, St. Mark, and St. John, the Acts of the Apostles, and the Epistle to the Galatians; and it clearly appears, from the very objections of Porphyry, that the books to which he alludes were the same which we possess at present. Thus he objects to the repetition of a generation in St. Matthew's genealogy; to Matthew's call; to the quotation of a text from Isaiah, which is found in a psalm ascribed to Asaph; to the calling of the lake of Tiberias a sea; to the expression in St. Matthew, 'the abomination of desolation'; to the variation in Matthew and Mark upon the text 'the voice of one crying in the wilderness.' Matthew citing it from Isaiah, Mark from the prophets; to John's application of the term Word; to Christ's change of intention about going up to the feast of tabernacles (John vii. 8); and to the judgment denounced by St. Peter upon Ananias and Sapphira, which he calls an imprecation of death.

The instances here alleged serve in some measure to show the nature of Porphyry's objections, and prove that Porphyry had read the gospels with that sort of attention which a writer would employ who regarded them as the depositories of the religion which he attacked. Besides these specifications, there exists in the writings of ancient Christians general evidence that the places of Scripture, upon which Porphyry had made remarks, were very numerous.

iii. The *internal evidence* of the authenticity of the New Testament consists of two parts:—The nature of the style, and the coincidence of the New Testament with the history of the times.

1. The *STYLE* of the New Testament is singular, and differs very widely from the style of classical authors. It is full of Hebraisms and Syriacisms; a circumstance which pious ignorance has considered as a fault, and which, even so late as the present century, it has attempted to remove; not knowing that these very deviations from Grecian purity afford the strongest pre-

assumption in its favor; for they prove that the New Testament was written by men of Hebrew origin, and is therefore a production of the first century. After the death of the first Jewish converts, few of the Jews turned preachers of the gospel; the Christians were generally ignorant of the Hebrew, and consequently could not write in the style of the New Testament. After the destruction of Jerusalem, and the dispersion of the Jews, their language must have been blended with that of other nations, and their vernacular phraseology almost entirely lost. The language of the early fathers, though not always the purest classic Greek, has no resemblance to that of the New Testament, not even excepting the works of the few who had a knowledge of the Hebrew; as Origen, Epiphanius, and Justin Martyr, who, being a native of Palestine, might have written in a style similar to that of the New Testament, had such a style then prevailed. He that suspects the New Testament to be the forgery of a more recent period ought to produce some person who has employed a similar diction; but those who are conversant with eastern writings know well that a foreigner, who has not been inured to eastern manners and modes of thinking from his infancy, can never imitate with success the oriental style, much less forge a history or an epistle, which contains a thousand incidental allusions which nothing but truth could suggest. To imitate closely the style of the New Testament is even more difficult than to imitate that of any other oriental book; for there is not a single author, even among the Jews themselves, since the destruction of Jerusalem, that has composed in a style in the least degree like it. The style of Clemens Romanus may perhaps be an exception. By many eminent critics it has been thought so like to that of the Epistle to the Hebrews as to give room for the opinion that Clement either was the author of that epistle, or was the person who translated it from the Syro-Chaldaic language, in which it was originally composed.

But, though the books of the New Testament bear so close a resemblance in idiom, there is a diversity of style which shows them to be the work of different persons. Whoever reads with attention the epistles of Paul must be convinced that they were all written by the same author. An equal degree of similarity is to be found between the gospel and first epistle of John. The writings of St. John and St. Paul exhibit marks of an original genius which no imitation can ever attain. The character of Paul as a writer is drawn with great judgment by Michaelis:—'His mind overflows with sentiment, yet he never loses sight of his principal object, but hurried on by the rapidity of thought, discloses frequently in the middle a conclusion to be made only at the end. To a profound knowledge of the Old Testament he joins the acuteness of philosophical wisdom, which he displays in applying and expounding the sacred writings; and his explanations are therefore sometimes so new and unexpected that superficial observers might be tempted to suppose them erroneous. The fire of his genius, and his inattention to style, occasion frequently a twofold obscurity, he

being often too concise to be understood except by those to whom he immediately wrote, and not seldom on the other hand so full of his subject as to produce long and difficult parentheses, and a repetition of the same word even in different senses. With a talent for irony and satire, he unites the most refined sensibility, and tempers the severity of his censures by expressions of tenderness and affection; nor does he ever forget in the vehemence of his zeal the rules of modesty and decorum. He is a writer, in short, of so singular and wonderful a composition that it would be difficult to find a rival. The truly sensible and sagacious Mr. Locke was of the same opinion, and contended that St. Paul was without an equal.'

2. Poems have been forged and ascribed to former ages with some success. Philosophical treatises might be invented which it would be difficult to detect; but there is not a single instance on record, where an attempt has been made to forge a history or a long epistle, where the fraud has not been either fully proved, or rendered so suspicious that few are weak enough to believe it. Whoever attempts to forge a history or an epistle in the name of an ancient author, will be in great danger of contradicting the history or the manners of that age, especially if he relate events which are not mentioned in general history, but such as refer to a single city, sect, religion, or school. The difficulty of forging such histories as the gospels, and such epistles as those of Paul, cannot be overcome by all the genius, learning, and industry, of any individual or society of men that ever lived. They contain a purer system of ethics than all the ancient philosophers could invent: they discover a candor and modesty unexampled: they exhibit an originality in the character of Jesus, and yet such a consistency as the imagination of our best poets has ever reached. Now it is a very remarkable circumstance that histories, written by four different men, should preserve such dignity and consistency, though frequently relating different actions of Jesus, and descending to the most minute circumstances in his life. The scene of action is too extensive, and the agreement of facts with the state of the times as represented by other historians is too close, to admit the possibility of forgery.

The scene of action is not confined to one country, it is successively laid in the greatest cities of the Roman empire; in Rome, in Antioch, in Corinth, in Athens, as well as in Jerusalem and the land of Palestine. Innumerable allusions are made to the manners and opinions of the Greeks, the Romans, and the Jews; and, respecting the Jews, they extend even to the trifles and follies of their schools. Yet, after the strictest examination, the New Testament will be found to have a wonderful coincidence and harmony with Josephus, the principal historian of these times, and an enemy of Christianity. It has been a question who the soldiers were who are said in the gospel of Luke to have addressed John the Baptist in these words, What shall we do? An answer to this question may be found in Josephus: *Antiq. lib. 58. c. 5. § 1, 2.* Herod the tetrarch of Galilee was engaged in a war

with his father-in-law Aretas, a petty king in Arabia Petraea, at the very time that John was preaching in the wilderness; and, the road from Galilee to Arabia running through that wilderness, the soldiers on their march had this interview with the Baptist. A coincidence like this, which has been overlooked by all the commentators, would not probably be attended to in a forgery.

Another instance of an agreement no less remarkable we shall quote from the valuable work of Michaelis. It has been a question of some difficulty among the learned, who was the Ananias who commanded St. Paul to be smitten on the mouth when he was making his defence before the council in Jerusalem: Acts xxiii. 2—5. Krebs, in his remarks taken from Josephus, has shown him to have been the son of Nebenedi. But, if so, how can it be reconciled with chronology, that Ananias was, at that time, called high priest, when it is certain from Josephus that the time of his holding that office was much earlier? And how comes it to pass that St. Paul says, 'I wist not, brethren, that he was the high priest?' The sacerdotal garb must have discovered who he was; a jest would have ill-suited the gravity of a tribunal; and a falsehood is inconsistent with the character of St. Paul. All these difficulties vanish as soon as we examine the special history of that period:—'Ananias the son of Nebenedi was high priest at the time that Helena queen of Adiabene supplied the Jews with corn from Egypt, during the famine which took place in the fourth year of Claudius, mentioned in the eleventh chapter of the Acts. St. Paul, therefore, who took a journey to Jerusalem at that period, could not have been ignorant of the elevation of Ananias to that dignity. Soon after the holding of the first council, as it is called, at Jerusalem, Ananias was dispossessed of his office, in consequence of certain acts of violence between the Samaritans and the Jews, and sent prisoner to Rome; but, being afterwards released, he returned to Jerusalem. Now from that period he could not be called high priest in the proper sense of the word, though Josephus has sometimes given him the title of ἀρχιερεὺς, taken in the more extensive meaning of a priest who had a seat and voice in the Sanhedrim; and Jonathan, though we are not acquainted with the circumstances of his elevation, had been raised in the mean time to the supreme dignity in the Jewish church. Between the death of Jonathan, who was murdered by order of Felix, and the high priesthood of Ismael, who was invested with that dignity by Agrippa, elapsed an interval during which the sacerdotal office was vacant. Now it happened precisely in this interval that St. Paul was apprehended in Jerusalem; and, the Sanhedrim being destitute of a president, he undertook of his own authority the discharge of that office, which he executed with the greatest tyranny. It is possible therefore that St. Paul, who had been only a few days in Jerusalem, might be ignorant that Ananias, who had been dispossessed of the priesthood, had taken upon himself a trust to which he was not entitled; he might therefore very naturally exclaim, 'I wist not, brethren, that he was the high priest!' Admitting him on the other hand to have been ac-

quainted with the fact, the expression must be considered as an indirect reproof, and a tacit refusal to recognise usurped authority.' Could such a correspondence as this subsist between truth and falsehood, between a forgery and an authentic history? or is it credible that these events could be related by any person but a contemporary?

Impressed with the love of truth, and feeling contempt as well as detestation at pious frauds, we hesitate not to acknowledge that in some particular facts there is a difference either real or apparent between Josephus and the writers of the New Testament. The objections arising from these differences are of two kinds; 1. Such as would prove a book not to have been written by the author to whom it is ascribed. 2. Such as would prove that the author was mistaken, and therefore not divinely inspired. To the first class belongs the following objection:—St. Paul says (2 Cor. xi. 32) that the governor of Damascus was under Aretas the king; but if we are to judge from the eighteenth book of the Jewish Antiquities, which corresponds with the period of St. Paul's journey to Damascus, this city must have belonged at that time to the Romans; and what authority could Aretas, a petty king in Arabia Petraea, have in such a city? In answer to this question, J. G. Ayne, in a dissertation published in 1755, has shown it to be highly probable that Aretas, against whom the Romans, not long before the death of Tiberius, made a declaration of war, which they neglected to put in execution, took the opportunity of seizing Damascus, which had once belonged to his ancestors; an event omitted by Josephus, as forming no part of the Jewish history, and by the Roman historians, as being a matter not flattering in itself, and belonging only to a distant province. 2dly, That Aretas was by religion a Jew; a circumstance the more credible, when we reflect that Judaism had been widely propagated in that country, and that even kings in Arabia Felix had recognised the law of Moses. The difficulty then is so far removed that it ceases to create suspicion against an epistle which has so many evident marks of authenticity; and it is only to be regretted that, in order to place the subject in the clearest point of view, we are not sufficiently acquainted with the particular history of Damascus.

Examples of the second kind are such as, if allowed their full force, might indeed prove a writer not divinely inspired, but could afford no reason to conclude that he was not the author of the writings which bear his name, since mistakes may be committed by the most accurate historian. The chief difficulties of this nature are found in the Gospel according to St. Luke, and do not apply to the writings of Matthew, John, Paul, and Peter. Laying aside the idea of inspiration altogether, let us enquire whether Luke or Josephus be most entitled to credit in those passages where they differ: which of them is most accurate, and which of them had the best opportunities of exploring the truth of the facts which they relate. Now Josephus relates the same story differently in different parts of his works, and is sometimes equally mistaken in

them all. We do not recollect to have seen such inconsistencies in the writings of St. Luke. Luke knew the characters, and witnessed many of the facts, of which he speaks, and he could receive the best information respecting those facts which were transacted in his absence. Josephus was born A. D. 37, some years after our Saviour's ascension. Now it is a very important observation of Michaelis that the period of history with which mankind are least acquainted is that which includes the time of their childhood and youth, together with the twenty or thirty years immediately preceding their birth. Concerning the affairs transacted during that period we are much more liable to fall into mistakes than concerning those of a remoter age. The reason is, that authentic history never comes down to the period of our birth; our knowledge of the period immediately preceding depends on hearsay; and the events which pass within the first eighteen or twenty years of our lives we are too young and heedless to observe with attention. This must have been more remarkably the case in the time of Josephus than at present, when there were neither daily papers nor periodical journals to supply the want of regular annals. There was no historian from whom Josephus could derive any knowledge of the times that immediately preceded his birth. There is a period then of forty or fifty years, in which, even with the most diligent enquiry, he was exposed to error.

When we find, therefore, the relations of Luke and Josephus so different as not to be reconciled, it would be very unfair to determine, without any further enquiry, in favor of Josephus. Let their character, works, and situation, be strictly examined; let their testimony be duly weighed and compared; and then let the preference be given to that author who, according to the strictest rules of equity and justice, seems entitled to the highest degree of credit. The decision of a jury, we shall venture to say, would in every instance turn out in favor of Luke.

Having thus ascertained the authenticity of the books of the New Testament, the next thing to be considered is their *inspiration*. It is certainly of some importance to know how far the apostles and evangelists were guided in their writings by the immediate influence of the Spirit of God; though this knowledge, if attainable, is not equally important with that of the authenticity of these writings. Michaelis indeed asserts that the divinity of the New Testament may be proved whether we can evince it to be written by immediate inspiration or not. 'The question,' says he, 'whether the books of the New Testament are inspired, is not so important as the question whether they are genuine? The truth of our religion depends upon the latter, not absolutely on the former. Had the Deity inspired not a single book of the New Testament, but left the apostles and evangelists without any other aid than that of natural abilities to commit what they knew to writing, admitting their works to be authentic, and possessed of a sufficient degree of credibility, the Christian religion would still be well founded. The miracles by which

it is confirmed would equally demonstrate its truth, even if the persons who attested them were not inspired, but simply human witnesses; and their divine authority is never presupposed, when we discuss the question of miracles, but merely their credibility as human evidence. If the miracles are true which the evangelists relate, the doctrines of Christ, recorded in the gospels, are proved to be the infallible oracles of God; and even if we admit the apostles to be mistaken in certain not essential circumstances, yet, as the main points of the religion which Christ commissioned them to preach are so frequently repeated, their epistles would instruct us as well in the tenets of the Christian system as the works of Maclaurin in the philosophy of Newton. It is possible, therefore, to doubt, and even to deny, the inspiration of the New Testament, and yet be fully persuaded of the truth of the Christian religion; and many really entertain these sentiments either publicly or in private, to whom we should render great injustice, if we ranked them in the class of unbelievers. Yet the Christian religion would be attended with difficulty, if our principium cognoscendi rested not on firmer ground; and it might be objected that sufficient care had not been taken for those whose consciences were tender, and who were anxiously fearful of mistaking the smallest of the divine commands. The chief articles, indeed, of Christianity are so frequently repeated, both by Christ and his apostles, that even were the New Testament not inspired we could entertain no doubt of the following doctrines: 'Jesus was the Messiah of the Jews, and an infallible messenger of God: he died for our iniquity; and by the satisfaction made by his death we obtain remission of sins, if on our part be faith and amendment of life; the Levitical law is abolished, and moral precepts with the ceremonies of baptism and the Supper of the Lord, are appointed in its stead; after the present follows an everlasting life, in which the virtuous shall be rewarded and the wicked punished, and where Christ himself shall be the judge.'

'To the epistles indeed,' says Michaelis, 'inspiration is of real consequence; but with respect to the historical books, viz. the gospels and Acts of the Apostles, we should really be no losers if we abandoned the system of inspiration, and in some respects have a real advantage. We should be no losers, if we considered the apostles in historical facts as merely human witnesses, as Christ himself has done in saying, 'Ye also shall bear witness, because ye have been with me from the beginning,' John xv. 27. And no one that attempts to convince an unbeliever of the truth of Christianity, would begin his demonstration by presupposing a doctrine which his adversary denies, but would ground his arguments on the credibility of the evangelists as human historians, for the truth of the miracles, the death, and the resurrection of Christ. Even those who examine the grounds of their faith for their own private conviction must treat the evangelists as human evidence; since it would be arguing in a circle to conclude that the facts recorded in the gospels are true because they are inspired, when we conclude the Scriptures to be inspired, in

consequence of their contents. In these cases, then, we are obliged to consider the evangelists as human evidence; and it would be no detriment to the Christian cause to consider them at all times as such in matters of historical fact. We find it nowhere expressly recorded that the public transactions which the apostles knew by their own experience, and of which St. Luke informed himself by diligent enquiry, should be particular objects of divine inspiration. We should even be considerable gainers, in adjusting the harmony of the gospels, if we were permitted to suppose that some one of the evangelists had committed an immaterial error, and that St. John has rectified some trifling mistakes in the preceding gospels. The most dangerous objections which can be made to the truth of our religion, and such as are most difficult to answer, are those drawn from the different relations of the four evangelists.

Before any enquiry is made respecting the inspiration of the books of the New Testament, it is necessary to determine the reading of the term; for theologians have given to it a variety of significations. Most of the German divines make it to consist in an infusion of words as well as ideas. Luther, Beza, and Salmasius, restrict it to ideas alone. Doddridge understands by it an intervention of the Deity, by which the natural faculties of the mind were directed to the discovery of truth. Warburton and Law think it was a negative intervention to preserve the sacred writers from essential errors. Some believe every circumstance was dictated by the Holy Ghost; others suppose that no supernatural assistance was granted except in the epistolary writings. See *INSPIRATION*.

As there is an evident distinction between inspiration and revelation, and as the origin of the Christian religion may be still proved divine, even though it were denied that those who record its facts and doctrines were inspired in the act of writing, it will be most judicious and safe to employ the word inspiration in that sense which can be most easily defended and supported. By doing this, much may be gained and nothing lost. It is difficult to prove to a deist that the words of Scripture are divine, because he sees that every writer has words and phrases peculiar to himself. It is difficult also to prove that the ideas were infused into the mind of the authors while they were engaged in the act of writing; because, concerning facts, they appeal not to divine inspiration, but declare what they have seen and heard. In reasoning, they add their own sentiments to what they had received from the Lord, and subjoin, especially in their epistles, things not connected with religion. The definition which Doddridge gives seems applicable to ordinary gifts, or the usual endowments of rational creatures, rather than to the extraordinary gifts of the Holy Spirit, which were bestowed on the apostles. Those who maintain that every fact or circumstance was suggested by divine inspiration will find it no easy matter to prove their position. The opinion of Warburton and Law, with proper explanations, seems most probable. The opinion of Grotius, that only the epistles were inspired, may be easily refuted.

The proof of the authenticity of the New Testament depends on human testimony: the proof of its inspiration is derived from the declaration of inspired persons. In proving that the New Testament is inspired, we presuppose its authenticity; that the sacred books were written by the apostles whose names they bear; and that they have been conveyed to us pure and uncorrupted. This we have already attempted to prove, and we hope with success. The evidence of inspiration is the testimony of Christ and his apostles, which we receive as credible, because they confirmed their doctrines by miracles. From the important mission of Christ and his apostles, we infer that every power was bestowed which divine wisdom thought expedient; and from their conduct we conclude that it is morally impossible that they could lay claim to any powers which they did not possess. It is proper, therefore, to enquire into the declarations of Christ and his apostles concerning the nature, degree, and extent of the inspiration bestowed upon the writers of the sacred books.

If we consider Christ's more immediate promises of inspiration to the apostles, we shall find that he has given them, in the most proper sense of the word, at three several periods, 1st, When he sent the apostles to preach the gospel; 2dly, In holding a public discourse relating to the gospel, at which were present a considerable multitude; 3dly, In this prophecy of the destruction of Jerusalem. When he sent the apostles to preach the gospel, he thus addressed them: 'When they deliver you up, take no thought how or what ye shall speak; for it shall be given you in that same hour what ye shall speak; for it is not you that speak, but the spirit of your Father that speaketh in you.' The same promise was made almost in the same words in the presence of an immense multitude: Luke xii. 11, 12. From these passages it has been urged that, if the apostles were to be inspired in the presence of magistrates in delivering speeches, which were soon to be forgotten, it is surely reasonable to conclude that they would be inspired when they came to compose a standard of faith for the use of all future generations of Christians. If this conclusion be fairly deduced, it would follow that the writings of the New Testament are the dictates of inspiration, not only in the doctrines and precepts, but in the very words. But it is a conclusion to which sincere Christians have made objections; for, say they, though Christ promises to assist his apostles in cases of great emergency, where their own prudence and fortitude could not be sufficient, it does not follow that he would dictate to them those facts which they knew already, or those reasonings which their own calm reflection might supply. Besides, say they, if the New Testament was dictated by the Holy Spirit, and only penned by the apostles, what reason can be given for the care with which Christ instructed them both during his ministry and after his crucifixion in those things pertaining to the kingdom of God?

In answer to this we may observe that though it be difficult to prove that the identical words of the New Testament were dictated by the Holy

Spirit, or the train of ideas infused into the minds of the sacred writers, there is one species of inspiration to which the New Testament has an undoubted claim. It is this, that the memories of the apostles were strengthened, and their understandings preserved from falling into essential errors. This we prove from these words of our Saviour, 'and I will pray the Father, and he will give you another Comforter, that he may abide with you for ever. He shall teach you all things, and bring all things to your remembrance whatsoever I have said unto you.' John xiv. 16, 26. This promise was surely not restrained to the day of Pentecost; it must have been a permanent gift, enabling the apostles at all times to remember with accuracy the discourses of our Saviour. When the apostles therefore (Matthew and John) relate those precepts of Christ which they themselves had heard, they write indeed from memory, but under 'the protection of the Spirit, who secures them from the danger of mistake: and we must of course conclude that their gospels are inspired.

Were we called upon more particularly to declare what parts of the New Testament we believe to be inspired, we would answer, The doctrines, the precepts, and the prophecies, every thing essential to the Christian religion. From these the idea of inspiration is inseparable. As to the events, the memory of the apostles was sufficient to retain them. If this opinion be just, it will enable us to account for the discrepancies between the sacred writers, which are chiefly confined to the relation of facts and events.

I. Of the language of the New Testament Scriptures.—All the books of the New Testament were originally written in Greek, except the Gospel according to Matthew and the Epistle to the Hebrews, which there is reason to believe were composed in the Syro-Chaldaic language, which in the New Testament is called Hebrew.

Various reasons have been assigned why the greatest part of the New Testament was written in Greek; but the true reason is this: it was the language best understood both by writers and readers. Had St. Paul written to a community in the Roman province of Africa, he might have written perhaps in Latin; but epistles to the inhabitants of Corinth, Galatia, Ephesus, Philippi, and Thessalonica, to Timothy, Titus, and Philemon, from a native of Tarsus, could hardly be expected in any other language than Greek. The same may be said of the epistles of St. Peter, which are addressed to the Christians of different countries, who had no other language in common than the Greek; and likewise of the epistles of St. James, who wrote to the Jews that lived at a distance from Palestine, and were ignorant of Hebrew. The native language of St. Luke, as well as of Theophilus, to whom he addressed his gospel and Acts of the Apostles, appears to have been Greek, and that St. John wrote his gospel in that language, and not in Hebrew, is by no means a matter of surprise, since he wrote at Ephesus.

With respect to the Epistle to the Romans, it may be asked indeed why St. Paul did not write in Latin? Now, whoever proposes this question, must presuppose that St. Paul was master of the

Latin language in such a degree as to find no difficulty in writing it; a matter which remains to be proved. It is very probable that St. Paul was acquainted with the Latin; but, between understanding a language and being able to write it, there is a very material difference. As St. Paul was a native of Tarsus, his native language was Greek; he had travelled during several years through countries in which no other language was spoken, and when he addressed the Roman centurion at Jerusalem, he spoke not Latin, but Greek. Is it extraordinary, then, that in writing to the inhabitants of Rome he should have used a language which was there so generally understood? It has been long remarked that Greek was at that time as well known in Rome as French in any court of modern Europe: that according to Juvenal even the female sex made use of Greek as the language of familiarity and passion; and that, in letters of friendship, Greek words and phrases were introduced with greater freedom than French expressions in German letters, as appears from Cicero's epistles to Atticus, and from those of Augustus preserved in the works of Suetonius. To this must be added a material circumstance, that a great part of the Roman Christians consisted of native Jews, who were better acquainted with Greek than with Latin, as either they themselves or their ancestors had come from Greece, Asia Minor, or Egypt, in which Greek was the language of the country. At least they read the Bible in that language, as no Latin translation of the Old Testament at that time existed; and, the Christian church at that period consisting chiefly of Jews, the heathen converts in Rome were of course under the necessity of accustoming themselves to the Greek language. In short, St. Paul in his Epistle to the Romans made use of a language, in which alone those who were ignorant of Hebrew could read the Bible. What has been here advanced respecting the Epistle to the Romans is equally applicable to the Greek of St. Mark, on the supposition that it was written at Rome.

To the above arguments may be added the example of Josephus, who, as well as the apostles, was by birth a Jew. He even lived in Rome, which is more than can be said of St. Paul and St. Mark, who resided there only a certain time: he was likewise younger than either; he came to Italy at an age which is highly suitable to the learning of a language, and previous to that period had spent several years in the Roman camp. The Jewish antiquities, the history of the Jewish war, and the account of his own life, he wrote undoubtedly with a view of their being read by the Romans; and yet he composed all these writings in Greek. He expresses his motive for writing his Greek account of the Jewish war in the following terms: 'That having written in his native language (i. e. the Hebrew dialect at that time spoken) a history of the war, in order that Parthians, Babylonians, Arabians, Adiabenes, and the Jews beyond the Euphrates might be informed of those events, he was now resolved to write for the Greeks and Romans, who had not been engaged in the campaigns, a more certain

account than had hitherto been given.' The motives which induced Josephus to write in Greek are fully as applicable to St. Paul and St. Mark.

Michaelis has thus characterised the style of the New Testament. 'The New Testament,' says he, 'was written in a language at that time common among the Jews, which may be named Hebraic Greek; the first traces of which we find in the translation of the LXX. Every man acquainted with the Greek language, who had never heard of the New Testament, must immediately perceive, on reading only a few lines, that the style is widely different from that of the classic authors. We find this character in all the books of the New Testament, in a greater or less degree, but we must not therefore conclude that they possess a uniformity of style. The harshest Hebraisms, which extend even to grammatical errors in the government of cases, are the distinguishing marks of the book of Revelation; but they are accompanied with tokens of genius and poetical enthusiasm of which every reader must be sensible who has taste and feeling. There is no translation of it which is not read with pleasure even in the days of childhood; and the very faults of grammar are so happily placed as to produce an agreeable effect. The gospels of St. Matthew and St. Mark have strong marks of this Hebraic style; the former has harsher Hebraisms than the latter, the fault of which may be ascribed to the Greek translator, who has made too literal a version, and yet the Gospel of St. Mark is written in worse language, and in a manner that is less agreeable. The epistles of St. James and St. Jude are somewhat better, but even these are full of Hebraisms, and betray in other respects a certain Hebrew tone. St. Luke has in several passages written pure and classic Greek, of which the first four verses of his gospel may be given as an instance; in the sequel, where he describes the actions of Christ, he has very harsh Hebraisms, yet the style is more agreeable than that of St. Matthew or St. Mark. In the Acts of the Apostles he is not free from Hebraisms, which he seems to have never studiously avoided; but his periods are more classically turned, and sometimes possess beauty devoid of art. St. John has numerous, though not uncouth, Hebraisms both in his gospel and epistles; but he has written in a smooth and flowing language, and surpasses all the Jewish writers in the excellence of narrative. St. Paul again is entirely different from them all; his style is indeed neglected and full of Hebraisms, but he has avoided the concise and verse-like construction of the Hebrew language, and has upon the whole a considerable share of the roundness of Grecian composition. It is evident that he was as perfectly acquainted with the Greek manner of expression as with the Hebrew, and he has introduced them alternately, as either the one or the other suggested itself the first, or was the best approved.'

Michaelis has shown that the New Testament not only contains Hebraisms, but Rabinisms, Syriasm, Chaldaisms, Arabisms, Latinisms, and Persian words, of which he has exhibited many specimens. To theologians, whose duty it cer-

tainly is to study the language of the New Testament with attention, we would strenuously recommend the perusal of this work, which in the English translation is one of the most valuable accessions to scriptural criticism that has yet appeared. We speak of the English translation, which the large and judicious notes of Mr. Marsh has rendered infinitely superior to the original.

We shall here add a few remarks on the peculiarities of the style and manner of the sacred writers, particularly the historians. These remarks extend to the Old Testament as well as to the New. 1. The first quality, for which the sacred history is remarkable, is simplicity in the structure of the sentences. The first five verses of Genesis furnish an example, which consist of eleven sentences. The substantives are not attended by adjectives, nor the verbs by adverbs, no synonymes, no superlatives, no effort at expressing things in a bold, emphatical, or uncommon manner. 2. The second quality is simplicity of sentiment, particularly in the Pentateuch, arising from the very nature of the early and uncultivated state of society about which that book is conversant. 3. Simplicity of design. The subject of the narrative so engrosses the attention of the writer, that he himself is as nobody. He introduces nothing as from himself, no remarks, doubts, conjectures, or reasonings. Our Lord's biographers particularly excel in this quality. This quality of style we meet with in Xenophon and Cæsar.

The evangelists may be ranked next to Genesis for simplicity of composition in the sentences. John and Matthew are distinguished for it more than Mark and Luke. But the sentiment is not so remarkable for simplicity in the evangelists as in the Pentateuch. The reasons of this difference are, the state of the Jews was totally changed; their manners, customs, &c., split into factions both in religion and politics. 2. The object of our Lord's ministry, which is the great subject of the gospels, was to inculcate a doctrine and morality with which none of their systems perfectly coincided; besides, being constantly opposed by all the great men, the greater part of his history consists of instructions and disputes. 3. As it is occupied with what our Saviour said, and what he did, this makes two distinctions of style and manner; that of our Saviour and the sacred penman's. In their own character, they neither explain nor command, promise nor threaten, praise nor blame. They generally omit the names of our Lord's enemies; thus directing our hatred at the vices they committed, not at the persons. They never mention such persons without necessity; which is the case with the high-priest, Pilate, Herod, and Judas: the first three for the chronology, the fourth to do justice to the eleven.

Herodias is indeed mentioned with dishonor, but her crime was a public one. On the other hand, all persons distinguished for any thing virtuous are carefully mentioned, Joseph of Arimathea, Nicodemus, Zaccheus, Bartimeus, Jairus, Lazarus, Mary, and Martha. They record their own faults (Peter's, Thomas's), nor do they make any merit of their confession. In one uniform

strain they relate the most signal miracles and most ordinary facts.

From the narrative is excluded that quality of style which is called animation. Nothing that discovers passion in the writer, or is calculated to excite the passions of the readers. Every thing is directed to mend the heart. But, in the discourses and dialogues of our Saviour, the expression, without losing any of its simplicity, is often remarkable for spirit and energy. Respecting harmony and smoothness, qualities which only add an external polish to language, they had not the least solicitude.

As to elegance, there in an elegance which results from the use of such words as are most in use with those who are accounted fine writers, and from such arrangements in the words and clauses as have generally obtained their approbation. This is disclaimed by the sacred authors. But there is an elegance of a superior order more nearly connected with the sentiment; and in this sort of elegance they are not deficient. In all the oriental languages great use is made of tropes, especially metaphors. When the metaphors employed bear a strong resemblance, they confer vivacity; if they be borrowed from objects which are naturally agreeable, beautiful, or attractive, they add also elegance. The evangelists furnish us with many examples of this kind of vivacity and elegance. Our Lord borrows tropes from corn-fields, vineyards, gardens, &c.

As a valuable appendage to this part of our subject, we subjoin Dr. Campbell's method of studying the books of the New Testament. This we offer to our readers as a beautiful instance of the judicious application of philosophy to sacred studies. It is the same method of discovering truth, by analysis and induction, which was pursued by Sir Isaac Newton with such astonishing success, which since his time has been uniformly practised in natural philosophy, and has been also applied to chemistry, to medicine, to natural history, and to the philosophy of the mind, by the ingenious Dr. Reid. This is the path of sound philosophy, which can alone lead to the discovery of truth. In following it, our progress may be slow, but it will be sure. If all the theologians would steadily adhere to it, we might then entertain the pleasant hope of discarding for ever those absurd systems of religion which are founded on single passages and detached fragments of Scripture, and of establishing opinions and doctrines on a solid foundation.

1. To get acquainted with each writer's style; to observe his manner of composition, both in sentences and paragraphs; to remark the words and phrases peculiar to him, and the peculiar application that he may sometimes make of ordinary words; for there are few of those writers who have not their peculiarities in all the respects now mentioned. This acquaintance with each can be obtained only by the frequent and attentive reading of his works in his own language.

2. To enquire into the character, the situation, and the office of the writer, the time, the place, and the occasion of his writing, and the people for whose immediate use he originally intended his work. Every one of these particu-

lars will sometimes serve to elucidate expressions otherwise obscure or doubtful. This knowledge may in part be learned from a diligent and reiterated perusal of the book itself, and in part be gathered from authentic, or at least probable accounts that have been transmitted to us concerning the complement of the canon.

3. The next general direction is, to consider the principal scope of the book, and the particulars chiefly observable in the method by which the writer has purposed to execute his design. This direction is particularly applicable to the epistolary writings, especially those of Paul.

4. If a particular word or phrase occur, which appears obscure, perhaps unintelligible, the first thing we ought to do, if satisfied that the reading is genuine, is to consult the context, to attend to the manner wherein the term is introduced, whether in a chain of reasoning or in a historical narration, in a description, or included in an exhortation or command. As the conclusion is inferred from the premises, or as from two or more known truths a third unknown or unobserved before may fairly be deduced; so from such attention to the sentence in connexion, the import of an expression, in itself obscure or ambiguous, will sometimes, with moral certainty be discovered. This, however, will not always answer.

5. If it do not, let the second consideration be, whether the term or phrase be one of the writer's peculiarities. If so, it comes naturally to be enquired, what is the acceptation in which he employs it in other places? If the sense cannot be precisely the same in the passage under review, perhaps, by an easy and natural metaphor or other trope, the common acceptation may give rise to one which perfectly suits the passage in question. Recourse to the other places wherein the word or phrase occurs in the same author is of considerable use, though the term should not be peculiar to him.

6. But 3dly, If there should be nothing in the same writer that can enlighten the place, let recourse be had to the parallel passages, if there be any such, in the other sacred writers. By parallel passages, I mean those places, if the difficulty occur in history, wherein the same or a similar story, miracle, or event, is related; if in teaching or reasoning, those parts wherein the same argument or doctrine is treated, or the same parable propounded; and, in moral lessons, those wherein the same class of duties is recommended; or, if the difficulty be found in a quotation from the Old Testament, let the parallel passage in the book referred to, both in the original Hebrew, and in the Greek version, be consulted.

7. But if, in these, there be found nothing that can throw light on the expression of which we are in doubt, the fourth recourse is to all the places wherein the word or phrase occurs in the New Testament, and in the Septuagint version of the Old, adding to these the consideration of the import of the Hebrew or Chaldaic word, whose place it occupies, and the extent of signification, of which in different occurrences such Hebrew or Chaldaic term is susceptible.

'8. Perhaps the term in question is one of those which very rarely occur in the New Testament, or those called *αραξ λεγομενα*, only once read in Scripture, and not found at all in the translation of the LXX. Several such words there are. There is then a necessity, in the fifth place, for recurring to the ordinary acceptation of the term in classical authors. This is one of those cases wherein the interpretation given by the earliest Greek fathers deserves particular notice. In this, however, I limit myself to those comments wherein they give a literal exposition of the sacred text, and do not run into vision and allegory.' See ALLEGORY.

II. *Of the ancient MSS. and early editions of the New Testament.*—The MSS. of the New Testament are the natural source, from which the genuine readings of the Greek Testament are to be drawn. The printed editions are either copies of more ancient editions, or of MSS., and they have no further authority than as they correspond to the MSS. from which they were originally taken. By MSS. of the New Testament we mean those only which were written before the invention of printing. The most ancient of these are lost, and there is no MS. now extant older than the sixth century. Few contain the whole New Testament; some contain the four gospels; some the Acts of the Apostles and epistles; and others the book of Revelation. The greatest number are those which contain the first part; those which have the second, or the first and second together, are likewise numerous; but those of the third are extremely few. It must be added, also, that in many MSS. those epistles are omitted whose divine authority was formerly doubted.

Wetstein, in collating many MSS. anew, made discoveries which had entirely escaped the notice of his predecessors. The fourth class consists of such as have been completely and accurately collated more than once. The fifth class, which is by far the most valuable, consists of such as have been printed word for word, and therefore form an original edition of the Greek Testament. We can boast but of a very few MSS. of this kind. Hearne printed at Oxford, in 1715, the Acts of the Apostles in Greek and Latin from the Codex Laudianus 3; Knittel has annexed to his edition of Ulpian, p. 53—118, a copy of two very ancient fragments preserved in the library of Wolfenbuttle; the one of the four gospels in general, the other of St. Luke and St. John. Woide printed in 1786 the Codex Alexandrinus, a MS. of great antiquity; and the University of Cambridge has resolved to publish, in a similar manner, the Cod. Cant. I., or, as it is sometimes called, the Codex Bezae, the care of which is entrusted to Dr. Kipling, a publication which will be thankfully received by every friend to sacred criticism. It was the intention of the abbé Spoletti, a few years ago, to publish the whole of the celebrated Codex Vaticanus; which would likewise have been a most valuable accession, since a more important MS. is hardly to be found in all Europe. He delivered for this purpose a memorial to the pope; but the design was not put into execution, either because the pope refused his assent, or the abbé aban-

doned it himself. See the Oriental Bible, vol. xxii. No. 333, and vol. xxiii. No. 348.

'A very valuable library,' says Michaelis, 'might be composed of the impressions of ancient MSS. which, though too expensive for a private person, should be admitted into every university collection, especially the Alexandrine and Cambridge MSS., to which I would add, if it were now possible to procure it, Hearne's edition of the Codex Laudianus 3. A plan of this sort could be executed only in England, by a private subscription, where a zeal is frequently displayed in literary undertakings that is unknown in other countries; and it were to be wished that the project were begun before length of time has rendered the MSS. illegible, and the attempt fruitless. £10,000 would go a great way towards the fulfilling of this request, if the learned did not augment the difficulty of the undertaking, by adding their own critical remarks, and endeavouring thereby to recommend their publication rather than by presenting to the public a faithful copy of the original. Should posterity be put in possession of faithful impressions of important MSS., an acquisition which would render the highest service to sacred criticism, all these editions of the New Testament should be regulated on the same plan as Hearne's edition of the Acts of the Apostles.' It must be highly flattering, to the patriotic spirit of an Englishman, to hear the encomiums which learned foreigners have so profusely bestowed on our liberality in supporting works of genius and learning and public utility. The plan which Michaelis proposed to us, in preference to all other nations in Europe, is noble and magnificent, and would certainly confer immortality on those men who would give it their patronage and assistance. There are many ancient MSS., especially in Italy, which have never been collated, but lie still unexplored. Here is a field where much remains to be done. See Marsh's Notes on Michaelis, vol. ii. p. 643, and Lectures on Lady Margaret's professor of divinity in the university of Cambridge, published in two parts. Michaelis has given a catalogue of ancient MSS., amounting in number to 292, to which he has added a short account of each. We shall confine our observations to the two most celebrated, the Alexandrine and Vatican MSS., which we have chiefly extracted from Michaelis.

The *Alexandrine manuscript* consists of four volumes; the first three of which contain the Old Testament, the fourth the New Testament, together with the first epistle of Clement to the Corinthians, and a fragment of the second. In the New Testament, which alone is the object of our present enquiry, is wanting the beginning as far as Matthew xxv. 6, *ὁ νυμφὸς προχεται*, likewise from John vi. 50 to viii. 52, and from 2 Cor. iv. 13 to xii. 7. The Psalms are preceded by the epistle of Athanasius to Marcellinus, and followed by a catalogue, containing those which are to be used in prayer for each hour, both of the day and of the night; also by fourteen hymns, partly apocryphal, partly biblical, the eleventh of which is a hymn in praise of the Virgin Mary, entitled *προσευχη Μαρίας τῆς θεωτοκῆ*: further the Hy-

potheses Eusebii are annexed to the psalms, and his Canones to the gospels. It is true that this has no immediate reference to the New Testament, but may have influence in determining the antiquity of the MS. itself. It has neither accents nor marks of aspiration; it is written with capital, or, as they are called, uncial letters, and has very few abbreviations. There are no intervals between the words; but the sense of a passage is sometimes terminated by a point, and sometimes by a vacant space. Here arises a suspicion that the copyist did not understand Greek, because these marks are sometimes found even in the middle of a word; for instance, Levit. v. 4, *ἀνομος ἡ ἀνομοση*, and Num. xiii. 29, *μω ὕσος*. This MS. was presented to Charles I. in 1628, by Cyrillus Lucaris, patriarch of Constantinople. Cyrillus has given the following account:—We know so much of this MS. of the holy writings of the Old and New Testament that Thecla, an Egyptian lady of distinction (nobilis femina Ægyptia), wrote it with her own hand 1300 years ago. She lived soon after the council of Nicæa. Her name was formerly at the end of the book; but when Christianity was subverted in Egypt, by the errors of Mahomet, the books of the Christians suffered the same fate, and the name of Thecla was expunged. But oral tradition of no very ancient date (memoria et traditio recens) has preserved the remembrance of it. After all, its antiquity cannot be determined with certainty, though it appears from the formation of the letters, which resemble those of the fourth and fifth centuries, and the want of accents, that it was not written so late as the tenth. In this century it was placed by Oudin, while Grabe and Schulze have referred it to the fourth, which is the very utmost period that can be allowed, because it contains the epistles of Athanasius. Wetstein, with more probability, has chosen a mean between these two extremes, and referred it to the fifth century.

The public is now in possession of a perfect impression of this MS., accompanied with a complete and critical collection of various readings. Dr. Woide published it in 1786, with types cast for that purpose, without intervals between the words. The copy is so perfect a resemblance of the original that it may supply its place. Its title is *Novum Testamentum Græcum e codice MSS. Alexandrino, qui Londini in Bibliotheca Musei Britannici asservatur, descriptum*. The preface of the learned editor contains an accurate description of the MS., with an exact list of all its various readings, that takes up no less than eighty-nine pages; and each reading is accompanied with a remark, in which is given an account of what his predecessors Juninus, Walton, Fell, Mill, Grabe, and Wetstein, had performed or neglected. See *ALEXANDRINE COPY*.

The *Vatican manuscript* contained originally the whole Greek Bible, including both the Old and New Testament; and in this respect, as well as in regard to its antiquity, it resembles none so much as the *Codex Alexandrinus*, but no two MSS. are more dissimilar in their readings, in the New Testament as well as in the Old. After the gospels, which are placed in the usual order,

come the Acts of the Apostles, which are immediately followed by the seven catholic epistles. Professor Ilwiid, in a letter dated Rome, April 12th, 1781, assured Michaelis that he had seen them with his own eyes, and that the second Epistle of St. Peter is placed folio 1434, the second of St. John folio 1442, the third folio 1443; then follow the epistles of St. Paul, but not in the usual order; for the Epistle to the Hebrews is placed immediately after those to the Thessalonians. The epistles of St. Paul are divided into ninety-three sections by figures written in the margin with red ink; but the Epistle to the Galatians ends with 59, and that to the Ephesians begins with 70; the Epistle to the Hebrews, on the contrary, begins with 60, and ends with 69. With the words *ἀμωμοντω ὄθεν*, Heb. ix. 4, the MS. ceases, the remaining leaves being lost. There is wanting, therefore, not only the latter part of this epistle, but the epistles to Timothy, Titus, and Philemon, with the Revelation of St. John; but this last book, as well as the latter part of the Epistle to the Hebrews, has been supplied by a modern hand in the fifteenth century. In many places the faded letters have been also retouched by a modern but careful hand; and when the person who made these amendments, who appears to have been a man of learning, found a reading in his own MS. which differed from that of the *Codex Vaticanus*, he has noted it in the margin, and has generally left the text itself untouched, though in some few examples he has ventured to erase it. It is certain that this MS. is of very high antiquity, though it has been disputed which of the two in this respect is entitled to the preference, the *Vaticanus* or *Alexandrinus*. The editors of the Roman edition of the Septuagint, in 1587, referred the date of the *Vatican MS.* to the fourth century, the period to which the advocates for its great rival refer the *Codex Alexandrinus*. More moderate are the sentiments of that great judge of antiquity Montfauçon, who, in his *Bibliotheca Bibliothecarum*, p. 3, refers it to the fifth or sixth century; and adds that, though he had seen other MSS. of equal antiquity, he had found none at the same time so complete.

The *Codex Vaticanus* has a great resemblance to the MSS. noted by Wetstein, C. D. . 1 13. 33. 69. 102, and to the Latin, Coptic, and Ethiopic versions; but it is preferable to most of them in being almost entirely free from those undeniable interpolations, and arbitrary corrections, which are very frequently found in the above-mentioned MSS., especially in D. 1. and 62. It may be applied, therefore, as a mean not only of confirming their genuine readings, but of detecting and correcting those that are spurious. It is written with great accuracy, and is evidently a faithful copy of the more ancient from which it was transcribed. But this MS. has not throughout the whole New Testament the same uniform text.

As we have now a beautiful printed edition of the *Alexandrine manuscript*, by Dr. Woide, it is much to be wished that we had also an exact impression of the *Vatican manuscript*. From the superstitious fears and intolerant spirit of the inquisition at Rome, all access to this MS. was

refused to the abbe Spoletti, who presented a memorial for that purpose. Unless the pope interpose his authority, we must therefore despair of having our wishes gratified.

The most valuable editions of the Greek New Testament are those of Mill, Bengel, and Wetstein. The edition of Mill, which was only finished fourteen days before his death, occupied the attention of the author for thirty years. The collections of various readings which had been made before the time of Mill, the Valesian, the Barberini, those of Stephens, the London Polyglot, and Fell's edition, with those which the bishop had left in manuscript, and whatever he was able to procure elsewhere, he brought together into one large collection. He made likewise very considerable additions to it. He collated several original editions more accurately than had been done before: he procured extracts from Greek manuscripts, which had never been collated; and of such as had been before collated, but not with sufficient attention, he obtained more complete extracts. It is said that he has collected from MSS. fathers, and versions, not fewer than 30,000 various readings. This collection, notwithstanding its many imperfections, and the superiority of that of Wetstein, is still absolutely necessary to every critic: for Wetstein has omitted a great number of readings which are to be found in Mill, especially those which are either taken from the Vulgate, or confirm its readings. Mill was indeed too much attached to this version; yet he cannot be accused of partiality in producing its evidence. Wetstein, by too frequently neglecting the evidence in favor of the Vulgate, has rendered his collection less perfect than it would otherwise have been. He likewise added, as far as he was able, readings from the ancient versions; and is much to be commended for the great attention which he paid to the quotations of the fathers; the importance of which he had sagacity enough to discern. It cannot, however, be denied, that Mill's Greek Testament has many imperfections, and some of real importance. His extracts from MSS. are often not only incomplete, but erroneous; and it is frequently necessary to correct his mistakes from the edition of Wetstein. His extracts from the oriental versions are also imperfect, because he was unacquainted with these languages. The great diligence which Mill had shown, in collecting so many various readings, alarmed the clergy as if the Christian religion had been in danger of subversion. It gave occasion for a time to the triumphs of the deist, and exposed the author to many attacks. But it is now universally known that not a single article of the Christian religion would be altered, though a deist were allowed to select out of Mill's 30,000 readings whatever he should think most inimical to the Christian cause.

In 1734 Bengel, abbot of Alpirspach, in the duchy of Wirtemberg, published a new edition of the Greek Testament. The fears which Mill had excited began to subside upon this new publication; for Bengel was universally esteemed a man of piety. Bengel was not only diligent in the examination of various readings, but in the strictest sense of the word conscientious; for he

considered it as an offence against the Deity, if, through his own levity or carelessness, he introduced a false reading into the sacred text. His object was not merely to make a collection of readings, and leave the choice of them to the judgment of the reader, but to examine the evidence on both sides, and draw the inference: yet he has not given his own opinion so frequently as Mill, whom he resembled in his reverence for the Latin version, and in the preference which he gave to harsh and difficult readings before those which were smooth and flowing. He was a man of profound learning; and had a cool and sound judgment, though it did not prevent him from thinking too highly of the Latin readings, and of the Codex Alexandrinus; with other Latinising MSS. The imperfections of Bengel's edition arise chiefly from his diffidence and caution. He did not venture to insert into the text any reading which had not already appeared in some printed edition, even though he believed it to be the genuine reading. In the book of Revelation indeed he took the liberty to insert readings which had never been printed; because few MSS. had been used in the printing of that book.

The celebrated edition of John James Wetstein, which is the most important of all, and the most necessary to those engaged in sacred criticism, was published at Amsterdam in 1751 and 1752, in two volumes folio. No man will deny that Wetstein's Prolegomena discover profound erudition, critical penetration, and an intimate acquaintance with the Greek MSS. It is a work which, in many respects, has given a new turn to sacred criticism, and no man engaged in that study can dispense with it. Wherever Wetstein has delivered his sentiments respecting a Greek MS., which he has done less frequently than Mill, he shows himself an experienced and sagacious critic. He is likewise more concise than Mill in delivering his opinion, and does not support it by producing so great a number of readings. But the critical rules which he has delivered are perfectly just; and in this respect there is a remarkable agreement between him and his eminent predecessors Mill and Bengel. In regard to the Latin version alone they appear to differ; in Mill and Bengel it has powerful, and perhaps partial advocates, but in Wetstein a severe and sagacious judge, who sometimes condemns it without a cause. But, in consequence of this antipathy to the Vulgate, his collection of various readings is less perfect than it might have been.

Wetstein, in his character of a critic, is perfectly honest. With respect to his diligence and accuracy, Michaelis does not pronounce him faultless. But Mr. Marsh has examined the examples on which Michaelis founds his assertion, and declares that Michaelis is mistaken in every one of them. The diligence of Wetstein can scarcely be questioned by any who are acquainted with his history. He travelled into different countries, and examined with his own eyes a much greater number of MSS. than any of his predecessors. His collection of various readings amount to above a million; and he has not only produced a much greater quantity of

matter than his predecessors, but has likewise corrected their mistakes. The extracts from MS. versions, and printed editions of the Greek Testament, which had been quoted by Mill, are generally quoted by Wetstein. Whenever Wetstein had no new extracts from the MSS. quoted by Mill, or had no opportunity of examining them himself, he copied literally from Mill; but wherever Mill has quoted from printed editions, as from the margin of Robert Stephen's for instance, or from the London Polyglot, Wetstein did not copy from Mill, but went to the original source, as appears from his having corrected many mistakes in Mill's quotations. On the whole it is surprising, when we consider the difficulties and labor which Wetstein had to encounter, that his errors and imperfections are so few.

The proposal of Michaelis, however, of a new collation of MSS., to form a complete collection of various readings, is worthy the attention of the learned. In mentioning this proposal Michaelis says, Britain is the only country which possesses the will and the means to execute the task. Should a resolution, he adds, be formed in this island, so happily situated for promoting the purposes of general knowledge; to make the undertaking a public concern, to enter into a subscription, and to employ men of abilities in collating MSS. both at home and abroad, they would be able to do more in ten years than could otherwise be done in a century. And could this nation direct its attention to any object more glorious or more useful than in ascertaining the text of the sacred Scriptures, and giving to posterity an accurate edition?

As the sense of Scripture, as well as all other books, is affected by the punctuation, it is of importance to determine whether the stops or points which we find in the sacred books were used by the sacred writers, or have been inserted by modern transcribers. We are told by Montfauçon, in his *Palæographia Græca*, p. 31, that the person who first distinguished the several parts of a period in Greek writing, by the introduction of a point, was Aristophanes of Byzantium, who lived under Ptolemæus Epiphanes, in the 145th Olympiad. But, though points were not used in books before this period, they were employed in inscriptions above 400 years B. C. See *Mont. Pal. Græc.* p. 135. As the fact has not been generally known that the ancients pointed their MSS., and as it is an important and interesting fact, we refer our readers to the first six lines of St. John's Gospel, as they are pointed in the Alexandrine MS. exhibited in vol. I. p. 563.

Whether any points for making the sense were used by the apostles, cannot be determined; but the points now in use have been invented since. In the fourth century Jerome began to add the comma and colon to the Latin version; and they were then inserted in many more ancient MSS. In the fifth century Euthalius, a deacon of Alexandria, divided the New Testament into lines. This division was regulated by the sense, so that each line ended where some pause was to be made in speaking. And when a copyist was disposed to contract his space, and therefore

crowded the lines into each other, he placed a point where Euthalius had terminated the line. In the eighth century the stroke was invented which we call a comma. In the Latin MSS. Jerome's points were introduced by Paul Warnfried and Alcuin, at the command of Charlemagne. In the ninth century the Greek note of interrogation (;) was first used. At the invention of printing the editors placed the points arbitrarily, probably without bestowing the necessary attention; and Stephens, in particular, varied his points in every edition. The meaning of many passages in the Scripture has been altered by false pointing.

The ancients divided the New Testament into two kinds of chapters, some longer and some shorter. This method appears to be more ancient than St. Jerome; for he expunged a passage from the New Testament which makes an entire chapter. The longer kind of chapters were called *breves*, the shorter *capitula*. St. Matthew contained, according to St. Jerome, sixty-eight *breves*; Mark contained forty-eight; Luke eighty-three; and John eighteen. All the evangelists together consisted of 217 *breves* and 1126 *capitula*. The inventor of our modern division into chapters was Hugo de S. Caro, a French Dominican friar who lived in the thirteenth century.

The ancients had two kinds of verses, one of which they called *στίχοι*, and the other *σηματα*. The *remata* were lines which contained a certain number of letters like our printed books, and therefore often broke off in the middle of a word. Josephus's twenty books of antiquities contained 60,000 of them, though in Ittiquis's edition there are only 40,000 broken lines. *Stichi* were lines measured by the sense; according to an ancient written list, mentioned by Father Simon, there were in the New Testament 18,612 of these.

The verses into which the New Testament is now divided are more modern, and an imitation of the division of the Old Testament. Robert Stephens, the first inventor, introduced them in his edition in 1551. He made this division on a journey from Lyons to Paris; and, as his son Henry tells us in his preface to the Concordance of the New Testament, he made it *inter equitandum*; i. e. when he was weary of riding he amused himself with this work at his inn.

This invention of the learned printer was soon introduced into all the editions of the New Testament; and, it must be confessed that in consulting and quoting the Scriptures, and in framing concordances for them, a subdivision into minute parts is of the greatest utility. But all the purposes of utility could surely have been gained, without adopting the hasty and indigested division of Stephens, which often breaks the sense in pieces, renders plain passages obscure, and difficult passages unintelligible. To the injudicious division of Stephens we may ascribe a part of the difficulties which attend the interpretation of the New Testament, and many of those absurd opinions which have disgraced the ages of the Reformation. For as separate verses appear to the eyes of the learned, and to the minds of the unlearned, as so many detached sentences, they have been supposed to contain complete sense, and they have accordingly been ex-

plained without any regard to the context, and often in direct opposition to it. Were any modern history divided into fragments, with as little regard to the sense, we should soon find that as many opposite meanings could be forced upon them as have been forced upon the books of the New Testament. The division into verses has been still more injurious to the epistles than to the gospels, for there is a close connexion between the different parts of the epistles, which the verses entirely dissolve. It is therefore to be wished that this division into verses were laid aside. The Scriptures ought to be divided into paragraphs, according to the sense; and the figures ought to be thrown into the margin. In

this way, the figures will retain their utility without their disadvantages. Dr. Campbell, in his beautiful translation of the gospels, has adopted this method with great judgment and success; and he who will read that translation will perceive that this single alteration renders the gospels much more intelligible, and, we may add, more entertaining.

Respecting the chronological order of the books of the New Testament critics are by no means agreed. The following table is from Mr. Townsend's Chronological Arrangement, where the conflicting opinions of chronologists have been considered and decided upon with great care:—

Book.	Author.	Place at which it was written.	For whose use primarily intended.	A. D.
Gospel of Matthew	Matthew	Judea	Jews in Judea	37
Gospel of Mark	Mark	Rome and Jerusalem.	Gentile Christians.	44
Acts of the Apostles	Luke	—	—	—
Epistle to the Galatians	Paul	Thessalonica	—	51
First to the Thessalonians	—	Corinth	—	—
Second to the Thessalonians	—	—	—	52
Epistle to Titus	—	Nicopolis	—	53
First to the Corinthians	—	Ephesus	—	56
First Epistle to Timothy	—	Macedonia	—	56 or 57
Second Epistle to the Corinthians	—	Philippi	—	58
Epistle to the Romans	—	Corinth	—	—
Epistle to the Ephesians	—	Rome	—	61
Epistle to the Philippians	—	—	—	62
Epistle to the Colossians	—	—	—	—
Epistle to Philemon	—	—	—	—
Epistle of James	James	Jerusalem	Jewish Christians	—
Epistle to the Hebrews	Paul	Italy	Jews	—
Gospel of St. Luke	Luke	Achaia	Gentile converts	64
Second Epistle to Timothy	Paul	—	—	65 or 66
First Epistle of Peter	Peter	—	Jews and Gentile converts	—
Second Epistle of Peter	—	Italy or Rome	Jewish and Gentile Christians of the Dispersion	—
Epistle of Jude	Jude	Probably Syria	General	66
Book of Revelation	John	Asia Minor	—	96
Three Epistles of John	—	—	—	96 to 106
Gospel according to John	—	—	—	—

III.—*Of the historical books of the New Testament.*—The word ΕΥΑΓΓΕΛΙΟΝ signifies any joyful tidings, and exactly corresponds to our English word Gospel. In the New Testament this term is confined to 'The glad tidings of the coming of the Messiah.' Thus, in Mat. xi. 5, our Lord says, 'The poor have the gospel preached;' that is, The coming of the Messiah is preached to the poor. Hence the name of Gospel was given to the histories of Christ, in which the good news of the coming of the Messiah, with all its joyful circumstances, are recorded.

That the Gospel according to MATTHEW was composed, says Dr. Campbell, by one born a Jew, familiarly acquainted with the opinions, ceremonies, and customs of his countrymen; that it was composed by one conversant in the sacred writings, and habituated to their idiom;

a man of plain sense, but of little or no learning, except what he derived from the Scriptures of the Old Testament; and finally, that it was the production of a man who wrote from conviction, and had attended closely to the facts and speeches which he related, but who in writing entertained not the most distant view of setting off himself—we have as strong internal evidence as the nature of the thing will admit, and much stronger than that wherein the mind in ninety-nine cases out of 100 acquiesces.

That the author of this history of our blessed Saviour was Matthew, appears from the testimony of the early Christians. It is attested by Jerome, Augustine, Epiphanius, and Chrysostom and in such a manner as shows that they knew the fact to be uncontroverted, and judged it to be incontrovertible. Origen, who flourished in

the former part of the third century, is also respectable authority. He is quoted by Eusebius (*Hist. lib. 6. c. 25*), wherein he specially treats of Origen's account of the sacred canon. 'As I have learned,' says Origen, 'by tradition concerning the four Gospels, which alone are received without dispute by the whole church of God under heaven; the first was written by Matthew, once a publican, afterwards an apostle of Jesus Christ, who delivered it to the Jewish believers, composed in the Hebrew language.' In another place he says, 'Matthew writing for the Hebrews who expected him who was to descend from Abraham and David, says, the lineage of Jesus Christ, son of David, the son of Abraham.' The next authority is that of Irenæus, bishop of Lyons, who had been a disciple of Polycarp. He says in the only book of his extant, that 'Matthew, among the Hebrews, wrote a gospel in their own language, whilst Peter and Paul were preaching the Gospel at Rome, and founding the church there.'

Irenæus had the best opportunities of information, having been well acquainted in his youth with Polycarp, the disciple of John; no objection can therefore be made to his evidence. But we can quote an authority still nearer the times of the apostles. Papias, bishop of Hierapolis, in Cæsarea, who flourished about 116, affirms that Matthew wrote his gospel in the Hebrew tongue, which every one interpreted as he was able. Papias was the companion of Polycarp, and besides must have been acquainted with many persons who lived in the times of the apostles. The fact, therefore, is fully established, that Matthew, the apostle of our Saviour, was the author of that gospel which is placed first in our edition of the New Testament.

The next subject of enquiry respects the language in which it was written. This we are assured by Papias, by Irenæus, and Origen, was the Hebrew; but this fact has been disputed by Erasmus, Whitby, and others. But though we are forced to acknowledge that the Gospel according to Matthew which we possess is a translation, it is evidently a close one; and the very circumstance that it has superceded the original, is a clear proof that it was thought equally valuable by the ancient Christians. The language in which the Gospel according to Matthew was originally composed, and which is called Hebrew by Papias, Irenæus, and Origen, is not the same with the Hebrew of the Old Testament; it was what Jerome very properly terms Syro-Chaldaic, having an affinity to both languages, but much more to the Chaldean than to the Syrian.

The time when this gospel was composed has not been precisely ascertained. Irenæus says that 'Matthew published his gospel when Peter and Paul were preaching at Rome.' Now Paul arrived at Rome A. D. 60 or 61, and probably suffered martyrdom in A. D. 65. This may be justly concluded from comparing the relation of Tacitus with that of Orosius, a writer of the fifth century. Orosius having given an account of Nero's persecution of the Christians, and of the death of the two apostles in it, adds, that it was followed by a pestilence in the city, and other disasters. And Tacitus relates that a pestilence prevailed in

the city, and violent storms took place in Italy A. D. 65. Matthew's gospel was therefore written between the year 60 and 65.

That this history was primarily intended for the use of the Jews, we have, besides historical evidence, very strong presumption from the book itself. Every circumstance is carefully pointed out which might conciliate the faith of that nation; every unnecessary expression is avoided, which might in any way serve to obstruct it. There was no sentiment relating to the Messiah with which the Jews were more strongly possessed, than that he must be of the race of Abraham, and of the family of David. Matthew, therefore, with great propriety, begins his narrative with the genealogy of Jesus. That he should be born at Bethlehem in Judea, is another circumstance in which the learned among the Jews were universally agreed. His birth in that city, with some very memorable circumstances that attended it, this historian has also mentioned. Those passages in the prophets, or other sacred books, which either foretel any thing that should happen to him, or admit an allusive appellation, or were in that age generally understood to be applicable to events which respect the Messiah, are never passed over by the evangelist in silence. The fulfilment of prophecy was always to the Jews, who were convinced of the inspiration of their sacred writings, strong evidence. Accordingly none of the evangelists has been more careful than Matthew, that nothing of this kind should be overlooked.

That which chiefly distinguishes Matthew's writings from those of the other evangelists, is the minute and distinct manner in which he has related many of our Lord's discourses and moral instructions. Of these his sermon on the mount, his charge to the apostles, his illustrations of the nature of his kingdom, and his prophecy on Mount Olivet, are examples. He has also wonderfully united simplicity and energy in relating the replies of his master to the cavils of his adversaries. Being early called to the apostleship, he was an eye and ear witness of most of the things which he relates. And Dr. Campbell thinks, that Matthew has approached as near the precise order of time in which the events happened as any of the evangelists. See MATTHEW. The Gospel according to Matthew is cited seven times in the epistle of Barnabas, twice in the first epistle of Clemens Romanus to the Corinthians, eight times in the Shepherd of Hermas, six times in Polycarp's epistle to the Philippian, and seven times in the smaller epistles of Ignatius. These citations may be seen at full length in Jones's New and Full Method of Settling the Canon, with the parallel passages in the Gospel according to Matthew.

That MARK was the author of the gospel which bears his name, and that it was the second in the order of time, is proved by the unanimous testimony of the ancient Christians. Many authorities are therefore unnecessary: we shall only mention those of Papias and Irenæus. Eusebius has preserved the following passage of Papias:— 'This is what is related by the elder (that is John, not the apostle, but a disciple of Jesus). Mark being Peter's interpreter, wrote exactly whatever he remembered, not indeed in the or-

der wherein things were spoken and done by the Lord; for he was not himself a hearer or follower of our Lord; but he afterwards, as I said, followed Peter, who gave instructions as suited the occasions, but not as a regular history of our Lord's teaching. Mark, however, committed no mistake in writing such things as occurred to his memory; for of this one thing he was careful, to omit nothing which he had heard, and to insert no falsehood in his narrative.' Such is the testimony of Papias, which is the more to be regarded, as he assigns his authority. He spake not from hearsay, but from the information which he had received from a most credible witness, John the elder, or presbyter, a disciple of Jesus, and a companion of the apostles.

Irenæus adds:—'After the departure (ἔξοδον) of Peter and Paul, Mark also, the disciple and interpreter of Peter, delivered to us in writing the things which had been preached by Peter.' Mark's gospel was published in Peter's lifetime, and had his approbation. It is supposed to be but two years posterior in date to that of Matthew.

Mark has generally been supposed to be the same person who is mentioned in the Acts and some of Paul's epistles, who is called John, and was the nephew of Barnabas. But as this person was the attendant of Paul and Barnabas, and is nowhere in Scripture said to have accompanied Peter in his apostolical mission, which ancient writers inform us the author of the gospel did, Dr. Campbell has concluded that these were different persons. The author of the gospel is certainly meant by Peter, when he says, 'Marcus my son saluteth you.'—1 Pet. v. 13.

That Mark wrote his gospel in Greek, is conformable to the testimony of antiquity. From the Hebraisms in the style, we should readily conclude that the author was by birth and education a Jew. There are also expressions which show, that he had lived for some time among the Latins, as *κεντυριον*, centurion, and *σπεκλαιωρ*, sentinel; words which do not occur in the other gospels. There are other internal evidences that this gospel was written beyond the confines of Judea. The first time the Jordan is mentioned, *ποταμος*, river, is added to the name for explanation; for though no person in Judea needed to be informed that Jordan was a river, the case was different in distant countries. The word Gehenna, which is translated hell in the New Testament, originally signified the Valley of Hinnom, where infants had been sacrificed by fire to Moloch, and where a continual fire was afterwards kept up to consume the filth of Jerusalem. As the words could not have been understood by a foreigner, the evangelist adds, by way of explanation, *πυρ το ασβεστον*, the unquenchable fire. Instead of the word mammon, he uses the common term *χρηματα*, riches. When he employs the oriental word corban, he subjoins the interpretation *ο εστι δωρον*, that is, a gift. These peculiarities corroborate the historical evidence, that Mark intended his gospel for the Gentiles. See CORBAN.

It has been affirmed that this evangelist has been the abridger of Matthew. It is true that Mark sometimes copies the expressions used by Matthew; but he is not to be considered as a mere

abridger, for he omits altogether several things related by Matthew, viz. our Lord's pedigree, his birth, the visit of the magians, Joseph's flight into Egypt, and the cruelty of Herod. Dr. Lardner has given a list of thirty-three passages, wherein circumstances are related, which are omitted by the other evangelists. There is one parable and an account of two miracles, peculiar to Mark. The parable is mentioned in ch. iv. 26. One of these miracles was the curing of a deaf and dumb man, ch. vii. 31—37. The other was the giving sight to a blind man at Bethsaida, ch. viii. 22, 26. The style of Mark, instead of being more concise than that of Matthew, is more diffuse. That he had read Matthew's gospel cannot be doubted; but that he abridged it, is a mistake.

According to the testimony above quoted, Mark derived his information from the apostle Peter. Yet this evangelist has omitted many things tending to Peter's honor, which are related in the other gospels, and has given the most particular account of Peter's fall. This gospel is seven times cited by Irenæus, and nine times by Tertullian.

That the author of the gospel, which is the third in order, was LUKE, the companion of the apostle Paul, is evident from the testimonies of Irenæus, Clemens of Alexandria, Origen, Tertullian, and many succeeding writers. But it has been disputed whether he was a Jew or a Gentile. That Luke was a Jew by birth, or at least by religion, may be argued from his being a constant companion of Paul. If he had been an uncircumcised Gentile, exceptions would have been made to him, especially at Jerusalem. It is also rendered highly probable, from his mode of computing time by the Jewish festivals, and from his frequent use of the Hebrew idiom. It has been supposed that Luke was one of the seventy disciples; but he does not pretend to have been a witness of our Lord's miracles and teaching; on the contrary, he tells us in his introduction, that he received his information from others. The design of Luke in writing his gospel was to supersede some imperfect and inaccurate histories of our Saviour, which had then been published.

It has been supposed that Luke chiefly derived his information from the apostle Paul, whom he faithfully attended in his travels; but from Luke's own words, we may conclude, that the principal source of his intelligence, as to the facts related in the gospel, was from those who had been eye and ear witnesses of what our Lord both did and taught. It was from conversing with some of the apostles or disciples of our Lord, who heard his discourses and saw his miracles, that he obtained his information. The time when this gospel was written is not ascertained. But as Origen, Eusebius, and Jerome, have ranged it after those of Matthew and Mark, we have no reason to doubt but they were written in the same order. The gospel by Luke has supplied us with many interesting particulars which had been omitted both by Matthew and Mark. It has given a distinct narration of the circumstances attending the birth of John the Baptist and the nativity of our Saviour. It has given an account of several memorable incidents and cures which had been overlooked

by the rest; the conversion of Zaccheus the publican; the cure of the woman who had been bowed down for eighteen years; the cure of the dropsical man; the cleansing of the ten lepers; the inhospitable treatment of our Saviour by the Samaritans, and the instructive rebuke which he gave on that occasion to two of his disciples for their intemperate zeal; also the affecting interview which he had after his resurrection with two of his disciples. Luke has also added many edifying parables to those which the other evangelists had recorded. Most of these Irenæus has specified as particularly belonging to this gospel, and has thereby shown that the Gospel of Luke was the same in his time that it is at present.

The style of St. Luke abounds almost as much with Hebraisms as any of the sacred writings; but it contains more of the Grecian idiom than any of them. It is also distinguished by greater variety and copiousness; qualities which may be justly ascribed to the superior learning of the author. His occupation as a physician would induce him to employ some time in reading, and give him easier access to the company of the great, than any of the other evangelists. As an instance of Luke's copiousness, Dr. Campbell has remarked that each of the evangelists has a number of words which are used by none of the rest; but in Luke's gospel the number of such peculiarities or words used in none of the other gospels, is greater than that of the peculiar words found in all the other gospels put together; and that the terms peculiar to Luke are for the most part long and compound words. He has also observed that there is more of composition in Luke's sentences than in the other three, and consequently less simplicity. Of this the very first sentence is an example, which occupies no less than four verses. Luke, too, has a great resemblance to other historians, in giving what may be called his own opinion in the narrative part of this work, a freedom which the other evangelists have seldom or never used. He calls the Pharisees lovers of money; in distinguishing Judas Iscariot from the other Judas, he uses the phrase, he who proved a traitor. (*ὁς καὶ ἐγένετο προδοτῆς*). Matthew and Mark express the same sentiment in milder language, 'he who delivered him up.' In recording the moral instructions of our Lord, especially in parables, Luke has united an affecting sweetness of manner with genuine simplicity. This gospel is frequently cited by Clemens Romanus, the contemporary of the apostles, by Ignatius, and Justin Martyr. Irenæus has made above 100 citations from it. In his lib. iii. adv. Hæres. c. 14, he vindicates the authority and perfection of Luke's gospel, and has produced a collection of those facts which are recorded only by this evangelist. See LUKE.

That the gospel which is placed last in our editions of the New Testament was written by JOHN, our Saviour's beloved disciple, is confirmed by the unanimous testimony of the ancient Christians. See JOHN. He possessed a high degree of intrepidity and zeal, a warm and affectionate heart, and was strongly attached to his master. He and his brother James were honored with the title of Boanerges, or Sons of Thunder. He was anxious to restrain whatever

he considered as a mark of disrespect against his Master, and to punish his enemies with severity. He was incensed against some persons for attempting to cast out demons in the name of Jesus; and required them to desist because they were not his disciples. James and he proposed to our Saviour to call down fire from heaven to punish the inhospitable Samaritans. But these instances of bigotry were reproved by our Lord. Nor was the courage of John less ardent than his zeal. When Peter had disowned his Lord, and all the other disciples had fled, John continued to attend his master. He was present at his trial, and followed him to the cross, where he was a spectator of his sufferings and death. The interview between Jesus and his disciple at Calvary, though concisely related, is an event which will strongly affect every man of feeling, while it convinces him of the unalterable affection of Jesus for his beloved disciple, as well as discovers his respectful tenderness for his mother. See JOHN.

The ancients inform us that there were two motives which induced John to write his gospel; the one that he might refute the heresies of Cerinthus and the Nicolaitans, who had attempted to corrupt the Christian doctrine; the other that he might supply those important events in the life of our Saviour which the other evangelists had omitted. Of the former of these motives Irenæus gives an account; but it seems very improbable that an apostle should write a history of our Lord on purpose to confute the wild opinions of Cerinthus or any other heretic. The intention of John in writing his gospel was far more extensive and important. It was evidently, according to Clemens of Alexandria, to supply the omissions of the other evangelists: It was to exhibit the evidences of the Christian religion in a distinct and perspicuous manner: It was, as he himself in the conclusion of his gospel assures us, to convince his readers, 'that Jesus is the Messiah, the Son of God, and that believing they might have life through his name.'—John xx. 31. He has executed his plan with astonishing ability, and has given the most circumstantial and satisfactory evidence that Jesus was the Messiah the Son of God. After declaring the pre-existence of Jesus, he gives the testimony of John the Baptist, and selects some of the greatest miracles of Jesus to prove his divine mission. In the fifth chapter he presents us with a discourse which our Saviour delivered in the temple in the presence of the Jews, wherein he states in a very distinct manner the proofs of his mission, from 1. The testimony of John; 2. His own miracles; 3. The declaration of the Father at his baptism; 4. The Jewish Scripture. Indeed the conclusion that Jesus was the Messiah, the Son of God, naturally arises from almost every miracle which our Saviour is said to have performed, and from every discourse that he delivered. This declaration is very often made by our Saviour himself; particularly to the woman of Samaria, to Nicodemus, and to the blind man whom he had cured.

John studiously passes over those passages in our Lord's history and teaching which had been treated at large by the other evangelists, or, if he mentions them at all, he mentions them slightly. This confirms the testimony of ancient writers,

that the first three gospels were written and published before John composed his gospel. Except the relation of our Saviour's trial, death, and resurrection, almost every thing which occurs in this book is new. The account of our Saviour's nativity, of his baptism, and of his temptation in the wilderness, is omitted; nor is any notice taken of the calling of the twelve apostles, or of their mission during our Saviour's life. Not one parable is mentioned, nor any of the predictions relating to the destruction of Jerusalem. All the miracles recorded by the other evangelists are passed over, except the miraculous supply of provisions, by which 5000 were fed. The other miracles which are mentioned are few in number, but they are minutely detailed. They are these: the turning of water into wine at Cana; the cure of the diseased man at the pool of Bethesda; the cure of the man blind from his birth; the restoring of Lazarus to life; and the healing of the servant's ear which Peter had cut off. But valuable would this gospel be though it had only recorded the consolation of Jesus to his disciples previous to his departure, which exhibits a most admirable view of our Saviour's character,—of his care and tender regard for his disciples. Having opened every source of comfort to their desponding minds, exhorted them to mutual love, and to the obedience of his Father's precepts; having warned them of the impending dangers and sorrows—our Saviour concludes with a prayer, in the true spirit of piety and benevolence; ardent without enthusiasm; sober and rational without lukewarmness.

The time in which this gospel was written has not been ascertained. Irenæus informs us that

it was written at Ephesus, but does not say whether before or after John's return from Patmos. He was banished to Patmos by Domitian, and died at Ephesus A. D. 100. The persecution which occasioned the exile of John commenced in the fourteenth year of Domitian's reign. John wrote his gospel after his return to Ephesus, as is affirmed by Epiphanius, about the year 97. This gospel is evidently the production of an illiterate Jew, and its style is remarkable for simplicity. It abounds perhaps with Hebraisms more than any of the other gospels; and contains some strong oriental figures which are not readily understood by any European. This gospel is cited once by Clemens Romanus, by Barnabas three times, by Ignatius five times, by Justin Martyr six times, by Irenæus often, and above forty times by Clemens Alexandrinus.

The following harmonised Table of the contents of the four Gospels is taken from Marsh's Translation of Michaelis's Introduction to the New Testament, vol. iii. p. 40, &c., to which we are so much in this paper indebted. The arrangement of facts as they occur in St. Matthew is here generally followed; and the other evangelists are collated with his account. The author observes, 'I would not have the reader suppose that the several facts here delivered are arranged, without exception, according to the order in which they really happened; for it is my intention to give rather a general index to the four Gospels than to draw up a chronological table.' The numbers prefixed to the several sections point out the consecutive order of the facts as well as it can be ascertained.

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN.
2. Genealogy of Christ, I. 1—17.		1. Preface, I. 1—4.	I. 1—14.
		III. 23—38.	
		3. Birth of John, I. 5—25.	
		4. Birth of Christ announced to Mary, I. 26—38.	
		5. Mary's visit to Elizabeth, I. 39—55.	
6. Joseph's dream, I. 18—24.		7. Birth of John I. 56—80.	
		II. 1—20.	
8. Birth of Christ, I. 25.		9. Circumcision of Christ, II. 21.	
		10. Presentation of Christ in the temple, II. 22—40.	
11. Jesus sought and worshipped by the wise men: flight into Egypt and return: massacre of the children of Bethlehem, ch. II. 1—23.		12. Education of Christ, and remarkable history of him in his twelfth year, at the feast	

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN.
13. John preaches, III. 1—12. 14. Christ baptised, III. 13—17. 15. Christ tempted, IV. 1—11	I. 1—8. I. 9—11. I. 12—13.	of the passover, II. 41—52. III. 1—20. III. 21—23. IV. 1—12.	16. Remarkable addition made by this evangelist relative to the testimonies in favor of Christ, by which he obtained his first disciples, who soon increased in numbers, I. 15—52. 17—20. History of Christ before the imprisonment of John. 17. Christ returns to Galilee, and changes water into wine at Cana, II. 1—12. 18. Goes to Jerusalem at the feast of the passover, and drives the sellers out of the temple, II. 13—22. 19. Gives Nicodemus, who visits him by night, more complete information of his doctrine, II. 23.—III. 21. 20. Remains in Judea: additional testimony of John the Baptist concerning him, III. 22—36. 21. Returns (after the imprisonment of John) through Samaria to Galilee: conversation with the woman of Samaria: many Samaritans believe in him, IV. 1—42.
22. Arrives in Galilee, calls several disciples, and performs miracles, IV. 12—24.	I. 14—21.	IV. 13, 14.	IV. 43, 44. 23. Remarkable addition of a second miracle at Cana, by which the absent son of a man of rank is at once restored to health, IV. 45—54.
		24. Christ teaches in the synagogue at Nazareth, IV. 15—30.*	
	25—30. History of a single day, and that a sabbath.		
	25. Christ teaches in the synagogue at Capernaum, and heals a demoniac, I. 21—28.	IV. 31—37.	

* In point of chronology, this does not belong to the present place, not even according to St. Luke; but I place it here because St. Luke has introduced it immediately after the preceding history. Perhaps it belongs to No. 50, though I have not placed it there, because it does not exactly agree with the accounts quoted in that article from St. Matthew and St. Mark.

S C R I P T U R E .

ST. MATTHEW.

ST. MARK.

ST. LUKE.

ST. JOHN.

	26. Christ ascends a mountain, passes the night in prayer, and then chooses his apostles, III. 13—19.	VI. 12—16.	
27. Christ delivers a discourse, in which he condemns the morality of the Pharisees, and opposes to it a better morality, which he commissions his apostles to teach, IV. 25. V. VI. VII.		VI. 17—49.	
28. Cleanses a leper, VIII. 1—4.	I. 40—45.	V. 12—16.	
29. Heals the servant of a centurion, VIII. 5—13.		VII. 1—10.	
30. Restores Peter's mother-in-law, and, after the sabbath was ended, several other sick persons, VIII. 14—17.	I. 29—34.	IV. 38—41.	
The day immediately following the preceding sabbath.			
	31. Christ departs from Capernaum, I. 35—39.	IV. 42—44.	
		32. Restores to life the young man at Nain, VII. 11—17.	
		33. Peter's copious draught of fishes; of which no traces are discoverable with respect to the time when it happened, V. 1—11.	
33—37. Another history of a single day, which was likewise a sabbath.			
33. Christ defends his disciples, who plucked ears of corn on the sabbath, XII. 1—8.	II. 23—28.	VI. 1—5.	
34. Cures a withered hand, XII. 9—21.	III. 1—12.	VI. 6—11.	
35. Drives out a devil, and is accused of doing it by the assistance of Beelzebub, the prince of the devils. His answer, XII. 22—50.	III. 20—35.	XI. 14—36. VIII. 19—21.	
		36. Dines with a Pharisee: conversation at table, XI. 37. XII. 12.	
37. Preaches in parables, XIII. 1—53.	IV. 1—34.	VIII. 4—18.	
38. Christ endeavours to retire from the multitude, and sails to the other side of the lake Gennesaret. Account of one who offers himself to be a disciple of Christ, and of another who requests permission to remain with his father till his death. VIII. 18—27.	IV. 35—41.	VIII. 22—25. IX. 57—62.	

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN.
39. Drives out a devil, who calls himself Legion, VIII. 28—34.	V. 1—20.	VIII. 26—39.	
40. Heals a lame man, IX. 1—8.	V. 21. II. 1—12.	VIII. 40. V. 17—20.	
41. Calls Matthew, and Levi: dines with tax-gatherers, IX. 9—17.	II. 13—22.	V. 27—39.	
42. Heals a woman afflicted with an hemorrhage and restores the daughter of Jairus, who was supposed to be dead, IX. 18—26.	V. 23—43.	VIII. 40—56.	
43. Restores two blind men to sight, IX. 27—31.			
44. Restores a dumb man to his speech, IX. 32—34.			
45. Sends out his twelve Apostles, IX. 33—XI. 1.	VI. 7—13.	IX. 1—6, and (but at a later period) the seventy disciples, X. 1—24.*	
46. Answers John, who enquires of him whether he is the Messiah, XI. 2—19.		VII. 18—35.	
47. Curses the cities in which he had performed the greatest part of his miracles, XI. 20—30.			
50. Christ comes to Nazareth, where he is disrespectfully treated, XIII. 54—58.	VI. 1—6.	48. Is anointed by a woman who had led a sinful life, VII. 35—50. 49. Account of those who ministered to Christ on his travels, VIII. 1—3. Perhaps ch. IV. 15—30, which I placed No. 24, belongs to this article, and contains the same history, but differently related.	
51. Herod, who had beheaded John, is doubtful what he should believe of Christ, XIV. 1—13.	VI. 14—29.	IX. 7—9.	52. Account of several remarkable transactions and discourses at a great festival in Jerusalem, omitted by the other evangelists, ch. V. entire.
3. 5000 men fed with five loaves and two fishes, XIV. 14—36.	VI. 30—56.	IX. 10—17.	VI. entire.
54. Discourses on washing of hands, clean and unclean meats, and other Jewish doctrines, XV. 1—20.	VII. 1—23.		

* I place the sending out of the seventy disciples in the same article with that of the twelve apostles, merely because the two facts resemble each other; for we have no knowledge of the precise period in which the former event happened. The evangelists themselves have often adopted a similar plan.—*Michaelis*.

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN.
55. Christ heals the daughter of a Canaanite woman, XV. 21—28.	VII. 24—30.		
56. Performs several miracles, XV. 29—31.	VII. 31—37.		
57. Feeds 4000 men with seven loaves and a few small fishes, XV. 32—39.	VIII. 1—10.		
58. Answers those who require a sign from heaven, XVI. 1—4.	VIII. 1—13.		
59. Commands his disciples to beware of the leaven of the Pharisees, which command they misunderstand, XVI. 5—12.	VIII. 14—21.		
61. Asks his disciples whom they suppose him to be. Peter answers that he is the Messiah, which Jesus confirms, XVI. 13—20.	60. Restores a blind man to sight, VIII. 22—26.		
62. Foretells his death on the cross, XVI. 21—28.	VII. 27—30.	IX. 18—21.	
63. Is transfigured on a lofty mountain beyond Jordan, XVII. 1—13.	VIII. 31—IX. 1.	IX. 21—27.	
64. Cures a lunatic, XVII. 14—21.	IX. 2—13.	IX. 28—36.	
65. Again foretells his approaching sufferings, XVII. 22, 23.	IX. 14—29.	IX. 37—42.	
66. Pays the half shekel as tribute for the service of the temple, XVII. 24—27.	IX. 30—32.	IX. 43—45.	
67. His discourses occasioned by the dispute who was the greatest in the kingdom of heaven, XVIII. 1—20.	IX. 33—50.	IX. 46—50. XVII. 1—5.	
68. Answers Peter's question, how often we must forgive, XVIII. 21—35.		69—83. Single scattered accounts recorded only by St. Luke, some of which belong to the three or four last months of the life of Christ, others to an earlier period, and which are not arranged according to the order of time	
		69. Christ is refused the offices of hospitality by the Samaritans, IX. 51—56.	
		70. Answers the question, Who is our neighbour? X. 26—37.	
		71. Visits Martha a second time: his discourse relative to her too anxious preparations for table, X. 38—42.	
		72. Teaches his disciples to pray, XI. 1—13.	

ST. MATTHEW.

ST. MARK.

ST. LUKE.

ST. JOHN.

73. Discourses occasioned by the request which a person present had made to Christ, that he would command his brother to divide with him his inheritance, XII. 13—59.

74. Discourses occasioned by Pilate's having put to death several Galileans, and offered their blood in sacrifice, XIII. 1—9.

75. Christ cures on the sabbath day an infirm woman, who was unable to walk upright, XIII. 10—22.

76. Answers the question, whether few or many will be saved, XIII. 23—30.

77. Replies to those who desire him to retire because Herod sought to put him to death, XIII. 31—38.

78. Dines with a Pharisee on the sabbath day. His actions and discourses on that occasion, XIV. entire.

79. Dines with publicans, and justifies his conduct to those who censure him. Acceptation of the Gentiles, XV. entire.

80. On this occasion he instructs his disciples in the true use of riches, and defends his doctrine against the Pharisees who ridicule it, XVI. entire.

81. His discourse on the extraordinary effects of faith, XVII. 5—11.

82. Heals ten lepers, of whom the Samaritan alone returned thanks, XVII. 11—19.

83. Answers the question, When the kingdom of God should come, XVII. 20—XVIII. 14.

84. Answers the question relative to divorces, XIX. 1—12.

85. Takes little children into his arms and blesses them: and on this occasion reproves his disciples, XIX. 13—15.

86. Answers a rich young man, who asked him

X. 1—12.

X. 13—15.

XVIII. 15—17.

ST. MATTHEW	ST. MARK.	ST. LUKE.	ST. JOHN.
now he should obtain eternal life. Christ's important discourse on this occasion with his disciples, XIX. 16—XX. 16.	X. 17—31.	XVIII. 18—30.	
87. Discourses again on his approaching death, XX. 17—19.	X. 32—34.	XVIII. 31—34.	
88. The mother of the sons of Zebedee requests for them the first rank in the kingdom of heaven. Christ's answer, XX. 20—28.	X. 35—40.	89—92. Supplement of several events and discourses, omitted by the first three evangelists, which took place especially at Jerusalem, and which belong to the period between No. 53 and No. 88.	
93. Restores two blind men to sight, XX. 29—34.	X. 46—52.		89. Christ's actions and discourses at Jerusalem, at a feast of tabernacles, VII. 1—X. 21.
96. Christ is anointed at Bethany by Mary: he defends this action against the unjust censure of his disciples, particularly of Judas Iscariot, who forms the resolution to betray him, XXVI. 6—13.	XIv. 3—9.	XVIII. 35—43 94. Visits Zaccheus, XIX. 1—10. 95. Describes in a parable the Jews who rejected him, XIX. 11—27.	90. Discourses at Jerusalem, at the festival of the dedication of the temple, X. 22—42.
97. Christ's entry into Jerusalem, XXI. 1—11.	XI. 1—10.		91. Christ raises Lazarus from the dead, XI. 1—52.	92. Returns to Ephraim, XI. 54—57.
98. He goes, as Lord, into the temple, and again drives out the sellers: he curses a fig-tree, XXI. 12—22.	XI. 11—26.	XIX. 28—44.	XII. 1—10.
99. Answers the question by what power he does this, XXI. 23—46.	XI. 27. XII. 12.	XIX. 45—48.	XII. 9—19
100. Parable of the neglected festival of a king, XXII. 1—14.		XX. 1—19.	
101. Answer to the question relative to tribute-money, XXII. 15—21.	XII. 13—17.	XX. 20—26.	
102. Answer to the objection made by the Sadducees to the resurrection			

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN.
of the dead, XXII. 22—33.	XII. 18—27.	XX. 27—40.	
103. Answer to the question, Which is the great commandment of the law? XXII. 34—39.	XII. 28—34.		
104. The question proposed, Whose son the Messiah is? XXII. 40—46.	XII. 35—38.	XX. 41—43.	
105. Discourse against the Pharisees, XXIII. entire.	XII. 39, 40.	XX. 44—47.	
	106. Small alms-offering of a widow commended, XII. 41—44.	XXI. 1—5.	
107. Prophecy of the destruction of Jerusalem, XXIV. entire.	XIII. entire.	XXI. 6—38.	
108. Addition to the preceding prophecy, found only in the Gospel of St. Matthew, XXV. 1—30.			
109. Christ answers the question relative to the last judgment, XXV. 30—46.			
110. After the preceding discourses were ended he again foretels his approaching death, XXVI. 2.			
			111. Of the Greeks who wished to see Jesus: Christ's discourse on this occasion, and the answer from heaven, XII. 20—36.
			112. Discourse on the infidelity of the Jews, after the performance of so many miracles, XII. 37—50.
113. Judas Iscariot promises to betray Christ, and receives thirty pieces of silver, XXVI. 3—5, 14—16.	XIV. 10, 11.	XXII. 1—5.	
114. Preparation for the feast of the passover, XXVI. 17—19.	XIV. 12—16.	XXII. 6—13.	
			XIII. I.
			115. Christ, before he eats the feast of the passover, washes the feet of his disciples, XIII. 1—20
116. He sits down to table, and speaks of his betrayer, XXVI. 20—25.	XIV. 17—21.	XXII. 14.	
		117. Presents to his apostles the cup of the passover: his discourse on that occasion, XXII. 15—18.	
118. Institutes the holy supper, XXV. 26—29.	XIV. 22—25.	XXII. 19, 20.	
		119. After supper he speaks again of his betrayer, XXII. 21—23.	
			XIII. 21—80.

ST. MATTHEW.	ST. MARK.	ST. LUKE.	ST. JOHN
121. Christ goes into the garden of Gethsemane, and foretels to Peter that he would deny him, XXVI. 30—35.	XIV. 26—31.	120. Another dispute among the apostles, who should be the greatest in the kingdom of God, XXII. 24—31. XXII. 32—39.	122. His discourse on the way, XIII. 31—XVII. 26.
123. Prayer that the cup might be removed from him, XXVI. 36—46.	XIV. 32—42.	XXII. 39—46.	
124. Christ is taken into custody, XXVI. 47—56.	XIV. 43—52.	XXII. 47—53.	XVIII. 1—12.
125. Brought before the Sanhedrim, and condemned: is denied by Peter, XXVI. 57—75.	XIV. 53—72.	XXII. 54—77.	XVIII. 13—28.
126. Christ is led before Pilate; Judas hangs himself, XXVII. 1—10.	XV. 1.	XXIII. 1.	
127. Christ is accused before Pilate, XXVII. 11—23.	XV. 2—14.	XXIII. 2—22.	XVIII. 29—XIX. 12.
128. Is condemned to death, XXVII. 24—31.	XV. 15—20.	XXIII. 23—25.	XIX. 13—16.
129. And crucified, XXVII. 32—38.	XV. 21—28.	XXIII. 26—35.	XIX. 17—25.
130. Is reviled on the cross, XXVII. 39—49.	XV. 29—37.	XXIII. 36—46.	131. Supplement of several facts not recorded by the other evangelists, XIX. 26—30.
132. Extraordinary events at the death of Christ, XXVII. 20—54.	XV. 38—41.	XXIII. 47—49.	133. Christ, on examination of the crucified, is found to be already dead; and is moreover pierced in the side with a spear, XIX. 31—37
134. Burial of Christ, XXVII. 55—61.	XV. 42—47.	XXIII. 50—56.	XIX. 38—42.
135. Appointment of a guard at his sepulchre, XXVII. 62—67.			
137. Resurrection of Christ, and the first accounts of it, which are brought by the women, XXVIII. 1—11.	136. The women purchase spices to embalm the body of Christ, XVI. 1.	XXIII. 56.	
	XVI. 2—8.	XXIV. 1—11.	XX. 1—10.
	138. Further accounts of it brought by Mary Magdalene, who sees Christ alone, and is commanded to report it to the apostles, XVI. 9, 10, 11.		XX. 11—18.

ST. MATTHEW.

139. The guards bring the account to the chief priests, and are bribed to say that the disciples had stolen the body, XXVIII. 11—15.

144. Christ shows himself in Galilee to all his disciples, on a mountain, where he had appointed them, XXVIII. 16—20.

ST. MARK.

140. Christ shows himself alive to the two disciples, who were going to Emmaus, XVI. 12, 13.

141. Christ shows himself to ten apostles, and to several disciples who were with them, XVI. 14—18.

ST. LUKE.

XXIV. 13—34.

XXIV. 36—49.

ST. JOHN.

XX. 19—23.

142. Eight days after he shows himself to the eleven apostles, Thomas likewise being then present, XX. 24—31.

143. Christ shows himself to two disciples and five apostles, at the sea of Tiberias. Remarkable discourse with Peter and John, XXI. entire.

The book entitled the Acts of the Apostles connects the gospels and the epistles. It is evidently a continuation of Luke's gospel, which appears both from the introduction and from the attestations of ancient Christians. Both are dedicated to Theophilus; and in the beginning of the Acts a reference is made to his gospel, which he calls 'a former treatise,' recording the actions and discourses of Jesus till his ascension to heaven. Luke is mentioned as the author of the Acts of the Apostles by Irenæus, Tertullian, Origen, and Eusebius. From the frequent use of the first person plural it is manifest that Luke was present at many of the transactions which he relates. He appears to have accompanied Paul from Troas to Philippi. He attended him also to Jerusalem, and afterwards to Rome, where he remained for two years. He is mentioned by Paul in several of those epistles which were written from Rome, particularly in the second epistle to Timothy, and in the epistle to Philemon.

This book contains the history of the Christian church for about twenty-eight or thirty years, from our Saviour's ascension to Paul's arrival at Rome in 60 or 61. As it informs us that Paul resided two years in Rome, it must have been written after the year 63; and, as the death of Paul is not mentioned, it is probable it was composed before that event, which happened A. D. 65. It may be divided into seven parts:—1. The account of our Saviour's ascension, and of the occurrences which happened on the first pentecost after that event, contained in c. i. ii. 2.

The transactions of the Christians of the circumcision at Jerusalem; in Judea, and Samaria, c. iii.—ix., xi. 1—21; xii. 3. Transactions in Cæsarea, and the admission of the Gentiles, c. x. 4. The first circuit of Barnabas and Paul among the Gentiles, c. xi. 22, xiii., xiv. 5. Embassy to Jerusalem, and the first council held in that city, c. xv. 6. Paul's second journey, c. xvi.—xxi. 7. His arrestment, trial, appeal to Cæsar, and journey to Rome, c. xxi. to the end of the book. The Acts of the Apostles are cited by Clemens Romanus, by Polycarp, by Justin Martyr, thirty times by Irenæus, and seven times by Clemens Alexandrinus.

IV. *Of the epistolary writings of the New Testament.* All the essential doctrines and precepts of the Christian religion were certainly taught by our Saviour himself, and are contained in the gospels. The epistles may be considered as commentaries on the doctrines of the gospel, addressed to particular societies, accommodated to their respective situations; intended to refute the errors and false notions which prevailed among them, and to inculcate those virtues in which they were most deficient. The plan on which these letters are written is, first, to decide the controversy, or refute the erroneous notions which had arisen in the society to which the epistle was addressed: and, secondly, to recommend those duties which their false doctrines might induce them to neglect; at the same time inculcating, in general exhortations, the most important precepts of Christian morality.

Of the epistles, fourteen were written by St. Paul. These are not placed according to the order of time in which they were composed, but according to the supposed precedence of the societies or persons to whom they were addressed. The following is their chronological order according to Dr. Lardner:—

A TABLE of ST. PAUL'S EPISTLES, with the PLACES where, and TIMES when, written, according to Dr. Lardner.

Epistles.	Places.	A. D.
1 Thessalonians	Corinth	52
2 Thessalonians	Corinth	52
Galatians	{ Corinth or } near the end of 52	
	{ Ephesus } or beginning of 53	
1 Corinthians	Ephesus	53
1 Timothy	Macedonia	56
Titus	{ Macedonia } bef. the end of 56	
	{ or near it }	
2 Corinthians	Macedonia about October	57
Romans	Corinth	58
Ephesians	Rome	61
2 Timothy	Rome	61
Philippians	Rome	62
Colossians	Rome	62
Philemon	Rome	62
Hebrews	{ Rome or } in Spring of 63	
	{ Italy }	

A TABLE of the CATHOLIC EPISTLES, and the REVELATION, according to Dr. Lardner.

Epistles.	Places.	A. D.
James	Judea	61
	{ or beg. of }	62
The two Epistles of Peter	Rome	64
1 John	Ephesus	80
2d and 3d of John	{ Ephesus } between 80	
	{ and }	90
Jude	Unknown	64 or 65
Revelation	{ Patmos or }	95 or 96
	{ Ephesus }	

It is more difficult to understand the epistolary writings than the gospels; the cause of which is evident. Many things are omitted in a letter, or slightly mentioned, because supposed to be known by the person to whom it is addressed. To a stranger this will create much difficulty. These causes of obscurity are common to all the writers of the epistles; but there are some peculiar to St. Paul. 1. As he had an acute and fertile mind, he seems to have written with great rapidity, and without attending much to method and arrangement. To this cause we may ascribe his numerous and long parentheses. In the heat of argument he sometimes breaks off abruptly to follow out some new thought; and, when he has exhausted it, he returns from his digression without informing his readers; so that it requires great attention to retain the connexion. 2. His frequent change of person, too, creates ambiguity; by the pronoun I he sometimes means himself; sometimes any Christian; sometimes a Jew, and sometimes any man. In using the pronoun we, he sometimes intends himself, sometimes comprehends his companions, sometimes the apostles; at one time he alludes to the converted Jews, at another time to the

converted Gentiles. 3. There is a third cause of obscurity; he frequently proposes objections, and answers them without giving any formal intimation. There are other difficulties which arise from our uncertainty who are the persons he is addressing, and what are the particular opinions and practices to which he refers. To these we may add two external causes, which have increased the difficulty of understanding the epistles. 1. The dividing them into chapters and verses, which dissolves the connexion of the parts, and breaks them into fragments. If Cicero's epistles had been so disjointed, the reading of them would be attended with less pleasure and advantage, and with a great deal more labor. 2. We are accustomed to the phraseology of the epistles from our infancy; but we have either no idea at all when we use it, or our idea of it is derived from the articles or system which we have espoused. But, as different sects have arbitrary definitions for St. Paul's phrases, we shall never by following them discover the meaning of St. Paul, who certainly did not adjust his phraseology to any man's system.

The best plan of studying the epistles is that which was proposed and executed by Mr. Locke. That acute and judicious author says, 'After I had found by long experience that the reading of the text and comments in the ordinary way proved not so successful as I wished to the end proposed, I began to suspect that reading a chapter, as was usual, and thereupon sometimes consulting expositors upon some hard places of it, was not a right method to get into the true sense of these epistles. I saw plainly that if any one should write me a letter as long as St. Paul's to the Romans, concerning such a matter as that is, in a style as foreign, and expressions as dubious, as his seem to be, if I should divide it into fifteen or sixteen chapters, and read one of them to-day, and another to-morrow, &c., it is ten to one I should never come to a full and clear comprehension of it. The way to understand the mind of him that wrote it, every one would agree, was to read the whole letter through from one end to the other all at once, to see what was the main subject and tendency of it; or if it had several views and purposes in it, not dependent one on another, nor in a subordination to one chief aim and end, to discover what those different matters were, and where the author concluded one and began another; and, if there were any necessity of dividing the epistle into parts, to make these the boundaries of them. In the prosecution of this thought, I concluded it necessary, for the understanding of any one of St. Paul's epistles, to read it all through at one sitting, and to observe, as well as I could, the drift and design of his writing it. If the first reading gave me some light, the second gave me more; so I persisted on, reading constantly the whole epistle over at once, till I came to have a good general view of the apostle's main purpose in writing the epistle, the chief branches of his discourse wherein he prosecuted it, the arguments he used, and the disposition of the whole. This, I confess, is not to be obtained by one or two hasty readings; it must be repeated again and again with a close attention to the tenor of

the discourse, and a perfect neglect of the divisions into chapters and verses.

Mr. Locke tells us he continued to read the same epistle over and over again till he discovered the scope of the whole, and the different steps and arguments by which the writer accomplishes his purpose. For he was convinced that Paul was a man of learning, of sound sense, and knew all the doctrines of the gospel by revelation. The speeches recorded in the Acts of the Apostles convinced this judicious critic that Paul was a close and accurate reasoner; and therefore he concluded that his epistles would not be written in a loose, confused, incoherent style. Mr. Locke accordingly followed the chain of the apostle's discourse, observed his inferences, and carefully examined from what premises they were drawn, till he obtained a general outline of any particular epistle.

That the Epistle to the ROMANS was written at Corinth, by St. Paul, is ascertained by the testimony of the ancient Christians. It was composed A. D. 58, in the twenty-fourth year after Paul's conversion, and is the seventh epistle which he wrote. From the Acts of the Apostles we learn that it must have been written within three months; for that was the whole period of Paul's residence in Greece (Acts xx. 1, 2, 3). The following analysis of this epistle is from a valuable treatise, Dr. Percy's Key to the New Testament. It exhibits the intention and arguments of the apostle, in the most concise, distinct, and connected manner, and affords the best view of this epistle that we have seen.

'The Christian church at Rome appears not to have been planted by any apostle; wherefore St. Paul, lest it should be corrupted by the Jews, who then swarmed in Rome, and of whom many were converted to Christianity, sends them an abstract of the principal truths of the gospel, and endeavours to guard them against those erroneous notions which the Jews had of justification, and of the election of their own nation. Now the Jews assigned three grounds for justification. First, 'The extraordinary piety and merits of their ancestors, and the covenant made by God with these holy men.' They thought God could not hate the children of such meritorious parents; and, as he had made a covenant with the patriarchs to bless their posterity, he was obliged thereby to pardon their sins. Secondly, 'A perfect knowledge and diligent study of the law of Moses.' They made this a plea for the remission of all their sins and vices. Thirdly, 'The works of the Levitical law,' which were to expiate sin, especially circumcision and sacrifices. Hence they inferred that the Gentiles must receive the whole law of Moses, in order to be justified and saved. The doctrine of the Jews concerning election was, 'That as God had promised to Abraham to bless his seed, to give him not only spiritual blessings, but also the land of Canaan, to suffer him to dwell there in prosperity, and to consider him as his church upon earth.' That therefore this blessing extended to their whole nation, and that God was bound to fulfil these promises to them, whether they were righteous or wicked, faithful or unbelieving. They even believed that a prophet ought

not to pronounce against their nation the prophecies with which he was inspired; but was rather to beg of God to expunge his name out of the book of the living. These remarks will serve as a key to unlock this difficult epistle, to which we shall now give a short analysis. See Michaelis's Lectures on the New Testament.

i. The epistle begins with the usual salutation with which the Greeks began their letters: chap. i. 1—7.

ii. St. Paul professes his joy at the flourishing state of the church at Rome, and his desire to come and preach the gospel (ver 8—19): then he insensibly introduces the capital point he intended to prove, viz.

iii. The subject of the gospel (ver. 16, 17); that it reveals a righteousness unknown before, derived solely from faith, and to which Jew and Gentiles have an equal claim.

iv. To prove this, he shows (chap. i. 18; iii. 20) that both Jews and Gentiles are 'under sin,' i. e. that God will impute their sins to Jews as well as to Gentiles. His arguments may be reduced to these syllogisms (chap. ii. 1. 17—24).

1. The wrath of God is revealed against those who hold the truth in unrighteousness; i. e. who acknowledge the truth and yet sin against it. 2. The Gentiles acknowledged truths; but partly by their idolatry, and partly by their other detestable vices, they sinned against the truth they acknowledged. 3. Therefore the wrath of God is revealed against the Gentiles, and punisheth them. 4. The Jews have acknowledged more truths than the Gentiles, and yet they sin. 5. Consequently the Jewish sinners are yet more exposed to the wrath of God: chap. ii. 1—12. Having thus proved his point, he answers certain objections to it. *Obj.* 1. 'The Jews were well grounded in their knowledge, and studied the law.' He answers, If the knowledge of the law, without observing it, could justify them, then God could not have condemned the Gentiles, who knew the law by nature: chap. ii. 13—16. *Obj.* 2. 'The Jews were circumcised.' *Ans.* That is, ye are admitted by an outward sign into the covenant with God. This sign will not avail you when ye violate that covenant: chap. ii. 25, to the end. *Obj.* 3. 'According to this doctrine of St. Paul, the Jews have no advantage before others.' *Ans.* Yes, they still have advantages; for unto them are committed the oracles of God. But their privileges do not extend to this, that God should overlook their sins: chap. iii. 1—19. *Obj.* 4. 'They had the Levitical law and sacrifices.' *Ans.* From hence is no remission, but only the knowledge of sin: chap. iii. 20.

v. From all this St. Paul concludes that Jews and Gentiles may be justified by the same means, without the Levitical law, through faith in Christ: And, in opposition to the imaginary advantages of the Jews, he states the declaration of Zechariah, that God is the God of the Gentiles as well as of the Jews: chap. iii. 21, to the end.

vi. As the whole blessing was promised to the faithful descendants of Abraham, whom both Scripture and the Jews call his children, he proves his former assertion from the example of Abraham; who was an idolater before his call,

but was declared just by God, on account of his faith, long before his circumcision. Hence he takes occasion to explain the nature and fruits of faith: chap. iv. 1, v. 11.

vii. He goes on to prove, from God's justice, that the Jews had no advantage over the Gentiles with respect to justification. Both Jews and Gentiles had forfeited life and immortality, by the means of one common father of their race, whom they themselves had not chosen. Now as God was willing to restore immortality by a new spiritual head of a covenant, viz. Christ, it was just that both Jews and Gentiles should share in this new representative of the whole race: chap. v. 12, to the end. Chap. v. ver. 15, 16, amounts to this negative question:— 'Is it not fitting that the free gift should extend as far as the offence?'

viii. He shows that the doctrine of justification, as stated by him, lays us under the strongest obligations to holiness: chap. vi. 1, to the end.

ix. He shows that the law of Moses no longer concerns us at all; for our justification arises from our appearing, in God's sight, as if actually dead with Christ on account of our sins; but the law of Moses was not given to the dead. On this occasion he proves at large that the eternal power of God over us is not affected by this; and that, whilst we are under the law of Moses, we perpetually become subject to death, even by sins of inadvertency: chap. vii. 1, to the end.

x. Hence he concludes that all those, and those only, who are united with Christ, and for the sake of his union do not live according to the flesh, are free from all condemnation of the law, and have an undoubted share in eternal life: chap. viii. 1—17.

xi. Having described their blessedness, he is aware that the Jews, who expected a temporal happiness, would object to him, that Christians notwithstanding endure much suffering in this world. He answers this objection at large: chap. viii. 18, to the end.

xii. He shows that God is not the less true and faithful, because he doth not justify, but rather rejects and punishes, those Jews who would not believe the Messiah: chap. ix., x., xi. In discussing this point, we may observe the cautious manner in which, on account of the Jewish prejudices, he introduces it (chap. ix. 1—5), as well as in the discussion itself. He shows that the promises of God were never made to all the posterity of Abraham, and that God always reserved to himself the power of choosing those sons of Abraham, whom, for Abraham's sake, he intended to bless, and of punishing the wicked sons of Abraham; and that, with respect to temporal happiness or misery, he was not even determined in his choice by their works. Thus he rejected Ishmael, Esau, the Israelites in the time of Moses, and the greater part of that people in the time of Isaiah: chap. ix. 6—29. He then shows that God had reason to reject most of the Jews then living, because they would not believe in the Messiah, though the gospel had been preached to them: chap. ix. 30, x. to the end. However, that God had not rejected all his people, but was still fulfilling his

promise upon many thousand natural descendants of Abraham, who believed in the Messiah, and would in a future period fulfil them upon more; for that all Israel would be converted: chap. xi. 1—32. And he concludes with admiring the wise counsels of God: ver. 33, to the end.

xiii. From the doctrine hitherto laid down, and particularly from this, that God has in mercy accepted the Gentiles; he argues that the Romans should consecrate and offer themselves up wholly to God. This leads him to mention in particular some Christian duties (chap. xii.), viz.

xiv. He exhorts them to be subject to magistrates (chap. xiii. 1—7), the Jews at that time being given to sedition.

xv. To love one another heartily: ver. 2—10; And,

xvi. To abstain from those vices which were considered as things indifferent among the Gentiles: ver. 11, to the end.

xvii. He exhorts the Jews and Gentiles in the Christian church to brotherly unity: chap. xiv. 2; xv. 13.

xviii. He concludes his epistle with an excuse for having admonished the Romans, whom he had not converted; with an account of his journey to Jerusalem; and with some salutations to those persons whom he meant to recommend to the church at Rome. See Michaelis's Lectures.

CORINTH was a wealthy and luxurious city of Greece. In this city Paul had^s spent two years founding a Christian church, which consisted of a mixture of Jews and Gentiles, but the greater part Gentiles. About three years after the apostle had left Corinth he wrote this epistle from Ephesus, A. D. 56, in the beginning of Nero's reign. That it was written from Ephesus appears from the salutation with which the epistle closes: chap. xvi. 19. From these words it is evident, 1st, that the epistle was written in Asia. 2dly, from Acts xviii. 18, 19, that Aquila and Priscilla accompanied Paul from Corinth to Ephesus. St. Paul had certainly kept up a constant intercourse with the churches which he had founded; for he was evidently acquainted with all their revolutions. They seem to have applied to him for advice in those difficult cases which their own understanding could not solve; and he was ready on all occasions to correct their mistakes. This epistle consists of two parts. 1. A reproof for those vices to which they were most prone. 2. An answer to some queries which they had proposed to him.

The Corinthians, like the other Greeks, had been accustomed to see their philosophers divide themselves into different sects; and, as they brought along with them into the Christian church their former opinions and customs, they wished, as before, to arrange themselves under different leaders. In this epistle Paul condemns these divisions, as inconsistent with the spirit of Christianity, which inculcates benevolence and unanimity, and as opposite to the conduct of Christian teachers, who did not, like the philosophers, aspire after the praise of eloquence and wisdom. They laid no claim to these, nor to any honor that cometh from men. He de-

clares that the Christian truths were revealed from heaven; that they were taught with great plainness and simplicity, and proved by the evidence of miracles: chap. i. 1. He dissuades them from their divisions, by reminding them of the great trial which every man's work must undergo; of the guilt they incurred by polluting the church of God; of the vanity of human wisdom; and of glorying in men. He admonishes them to esteem the teachers of the gospel only as the servants of Christ; and to remember that every superior advantage which they enjoyed was to be ascribed to the goodness of God: chap. iii. 4.

2. In the fifth chapter the apostle considers the case of a notorious offender, who had married his step-mother; and tells them that he ought to be excommunicated. He also exhorts the Christians not to associate with any person who led such an openly profane life.

3. He censures the Corinthians for their litigious disposition, which caused them to prosecute their Christian brethren before the heathen courts. He expresses much surprise that they did not refer their differences to their brethren; and concludes his exhortations on this subject by assuring them that they ought rather to allow themselves to be defrauded than to seek redress from heathens: chap. v. 1—9.

4. He inveighs against those vices to which the Corinthians had been addicted before their conversion, and especially against fornication; the criminality of which they did not fully perceive, as this vice was generally overlooked in the systems of the philosophers: chap. vi. 9—20.

Having thus pointed out the public irregularities with which they were chargeable, he next replies to certain questions which the Corinthians had proposed to him by letter.

1. He determines some questions relating to the marriage state; as 1st, Whether it was good to marry under the existing circumstances of the church? And 2d, Whether they should withdraw from their partners if they continued unbelievers? chap. vii.

2. He instructs them how to act with respect to idol offerings. It could not be unlawful in itself to eat the food which had been offered to idols; for the consecration of flesh or wine to an idol did not make it the property of the idol, an idol being nothing, and therefore incapable of property. But some Corinthians thought it lawful to go to a feast in the idol temples, which were places of resort for lewdness, and to eat the sacrifices whilst praises were sung to the idols. This was publicly joining in the idolatry. He even advises to abstain from such participation as was lawful, rather than give offence to a weak brother, which he enforces by his own example, who had abstained from many lawful things, rather than prove a scandal to the gospel: chap. viii., ix., x.

3. He answers a third query concerning the manner in which women should deliver any thing in public, when called to it by a divine impulse. And here he censures the unusual dress of both sexes in prophesying, which exposed them to the contempt of the Greeks, among whom the men usually went uncovered, and the

women veiled. He goes on to censure the irregularities committed at their love-feasts, or the Lord's Supper. It was a common practice with the Greeks at their social suppers for every man to bring his own provisions along with him, not, however, to share them with the company, but to feast upon them in a solitary manner. Thus the rich ate and drank to excess, while the poor were totally neglected. The Corinthians introduced the same practice in the celebration of the Lord's Supper, thus confounding it with their ordinary meals, and without ever examining into the end of the institution. This gross abuse Paul reproves in the eleventh chapter. He also shows them that all Christians ought to be united in mutual love; and that tenderness ought to be shown to the most inconsiderable member, as every one is subservient to the good of the whole: chap. xii. In the thirteenth chapter he gives a beautiful description of benevolence. He represents it as superior to the supernatural gifts of the Spirit, to the most exalted genius, to universal knowledge, and even to faith. In the fourteenth chapter he cautions the Corinthians against ostentation in the exercise of the gift of languages, and gives them proper advices.

4. He asserts the resurrection of the dead, founding it upon the resurrection of Jesus Christ, which he considers as one of the most essential doctrines of Christianity. He then answers some objections, drawn from our not being capable of understanding how it will be accomplished: chap. xv. He concludes with directions concerning alms; promises them a visit, and salutes some of the members.

The second epistle to the CORINTHIANS was written from Macedonia, A. D. 57. See 2 Cor. ix. 1—5; viii. and xiii. 1. St. Paul's first epistle had wrought different effects among the Corinthians; many of them examined their conduct; they excommunicated the incestuous man; requested St. Paul's return with tears; and vindicated him and his office against the false teacher and his adherents. Others of them still adhered to that adversary of St. Paul, denied his apostolic office, and furnished themselves with pretended arguments from that epistle. He had formerly promised to take a journey from Ephesus to Corinth, thence to visit the Macedonians, and return from them to Corinth: 2 Cor. i. 15, 16. But the unhappy state of the Corinthian church made him alter his intention (ver. 23), since he found he must have treated them with severity. Hence his adversaries argued, 1. That St. Paul was irresolute and unsteady, and therefore could not be a prophet. 2. The improbability of his ever coming to Corinth again, since he was afraid of them. Such was the state of the Corinthian church when St. Paul, after his departure from Ephesus, having visited Macedonia (Acts xx. 1), received an account of the above particulars from Titus (2 Cor. vii. 5, 6), and therefore wrote them his second epistle about the end of the same year, or the beginning of 58. But to give a more distinct view of the contents of this epistle:—

1. The apostle, after a general salutation, expresses his grateful sense of the divine goodness; professing his confidence in God, supported by a

sense of his own integrity; makes an apology for not having visited the Corinthians as he had intended, and vindicates himself from the charge of fickleness: chap. i.

2. He forgives the incestuous man, whose conduct had made so deep an impression on the apostle's mind, that one reason why he had deferred his journey to Corinth was that he might not meet them in grief, nor till he had received advice of the effect of his admonitions. He mentions his anxiety to meet Titus at Troas, to hear of their welfare; expresses his thankfulness to God for the success attending his ministry, and speaks of the Corinthians as his credentials, written by the finger of God: chap. ii. iii. 1—6.

3. He treats of the office committed to him of preaching the redemption; and prefers it to preaching the law, to which probably his adversaries had made great pretences. They had ridiculed his sufferings; which he shows to be no disgrace to the gospel or its ministers; and gives a short abstract of the doctrine he preaches: chap. iii. 6. v. to the end. He expiates on the temper with which, in the midst of afflictions and persecutions, he and his brethren executed their important embassy; and with great affection exhorts them to avoid idolatry: chap. vi. He tells them how much he rejoiced in their amendment, and how sorry he had been for the distress which his necessary reproofs had occasioned: chap. vii. He then exhorts them to make liberal contributions for the Christians in Judea. He recommends to them the example of the Macedonians, and reminds them of the benevolence of the Lord Jesus. He expresses his joy for the readiness of Titus to assist in making the collection: makes honorable mention of other Christian brethren (chap. viii.); and recommends them to the divine blessing: chap. ix.

4. Next he obviates some reflexions thrown upon him for the mildness of his conduct, as if it had proceeded from fear. He asserts his apostolical power and authority: chap. x. He vindicates himself against the insinuations of some for having declined pecuniary support from the church. To show his superiority over those designing men who had opposed his preaching, he enumerates his sufferings; gives a detail of some extraordinary revelation which he had received; and vindicates himself from the charge of boasting, by declaring that he had been forced to it: chap. xi. xii. He closes the epistle, by assuring them how much it would grieve him to demonstrate his divine commission by severer methods.

The GALATIANS were descended from those Gauls who had formerly invaded Greece, and afterwards settled in Lower Asia. St. Paul had preached the gospel among them A. D. 51, soon after the council at Jerusalem: Acts xvi. 6. Asia swarmed at that time with zealots for the law of Moses, who wanted to impose it upon the Gentiles: Acts xv. 1. Soon after St. Paul had left the Galatians, these false teachers had got among them, and wanted them to be circumcised, &c. This occasioned the epistle, which Michaelis thinks was written in the same year, before St. Paul left Thessalonica. Dr. Lardner dates it about the end of 52, or in the beginning

of 53, before St. Paul set out for Jerusalem by way of Ephesus. The subject of this epistle is much the same with that of the Epistle to the Romans; only this question is more fully considered here, 'Whether circumcision, and an observance of the Levitical law, be necessary to the salvation of a Christian convert?' These Judaizing Christians, whose indirect views St. Paul exposes (Acts xv. 1; Gal. v. 3, 9), at first only represented circumcision as necessary to salvation; but afterwards they insisted upon the Christians receiving the Jewish festivals: Gal. iv. 10.

As it appears from several passages of this epistle (chap. i. 7, 8, 10, and v. 11) that the Judaizing Christians had endeavoured to persuade the Galatians that Paul himself had changed his opinion, and now preached up the Levitical law; he denies that charge, and affirms that the doctrines which he had taught were true, for he had received them from God by immediate revelation. He relates his miraculous conversion; asserts his apostolical authority, which had been acknowledged by the disciples of Jesus; and, as a proof that he had never inculcated a compliance with the Mosaic law, he declares that he had opposed Peter at Antioch for yielding to the prejudices of the Jews.

He then argues that the Galatians ought not to submit to the law of Moses:—1. Because they had received the Holy Ghost and the gifts of miracles, not by the law, but by the gospel: chap. iii. 1—5. 2. Because the promises which God made to Abraham were not restricted to his circumcised descendants, but extended to all who are his children by faith: chap. iii. 6—18. In answer to the objection, 'To what then serveth the law?' he replies, That it was given because of transgression; that is, to preserve them from idolatry till the Messiah himself should come. 3. Because all men, whether Jews or Gentiles, are made the children of God by faith, or by receiving the Christian religion, and therefore do not stand in need of circumcision: chap. iii. 26—29. From the first verse of chap. iv. to the eleventh, he argues that the law was temporary, being only fitted for a state of infancy; but that the world having attained a state of manhood under the Messiah, the law was of no farther use. In the remaining part of chap. iv. he reminds them of their former affection for him, and assures them that he was still their sincere friend. He exhorts them to stand fast in the liberty with which Christ had made them free.

He next confutes the false report which had been spread abroad among the Galatians that Paul himself preached up circumcision. He had already indirectly refuted this calumny, but he now directly and openly contradicts it; 1. By assuring them that all who thought circumcision necessary to salvation could receive no benefit from the Christian religion: chap. v. 2—4. 2. By declaring that he expected justification only by faith: ver. 5, 6. 3. By testifying that they had once received the truth, and had never been taught such false doctrines by him: ver. 7, 8. 4. By insinuating that they should pass some censure on those who misled them (ver. 9, 10), by declaring that he was persecuted for opposing

the circumcision of the Christians: ver. 11. 5. By expressing a wish that those persons should be cut off who troubled them with this doctrine. This epistle affords a fine instance of Paul's skill in managing an argument.

He next cautions them against an idea which his arguments for Christian liberty might excite, that it consisted in licentiousness. He shows them it does not consist in gratifying vicious desires; for none are under stronger obligations to moral duties than the Christian. He recommends gentleness and meekness to the weak (chap. vi. 1—5), and exhorts them to be liberal to their teachers, and unto all men: ver. 6—10. He concludes with exposing the false pretences of the Judaizing teachers, and asserting the integrity of his own conduct.

EPHESUS was the chief city of all Asia on this side Mount Taurus. St. Paul had passed through it in the year 54, but without making any stay: Acts xviii. 19—21. In 55 he returned to Ephesus again, and staid there three years: chap. xix. During his abode there he completed a very flourishing church of Christians, the first foundations of which had been laid by some inferior teachers. As Ephesus was frequented by persons of distinction from all parts of Asia Minor, St. Paul took the opportunity of preaching in the ancient countries (ver. 10); and the other churches of Asia were considered as the daughters of the church of Ephesus; so that an epistle to the Ephesians was, in effect, an epistle to the other churches of Asia at the same time. Dr. Lardner shows it to be highly probable that this epistle was written A. D. 61, soon after Paul's arrival at Rome.

As Paul was in a peculiar manner the apostle of the Gentiles, and was now a prisoner at Rome in consequence of having provoked the Jews, by asserting that an observance of the Mosaic law was not necessary to obtain the favor of God, he was afraid lest an advantage should be taken of his confinement to unsettle the minds of those whom he had converted. Hearing that the Ephesians stood firm in the faith of Christ, without submitting to the law of Moses, he writes this epistle to give them more exalted views of the love of God, and of the excellence and dignity of Christ. This epistle is not composed in an argumentative or didactic style: The first three chapters consist almost entirely of thanksgivings and prayers, or glowing descriptions of the blessings of the Christian religion. The last three chapters contain practical exhortations to unity, love, and concord, from the consideration that all Christians are members of the same body, of which Christ is the head. He then advises them to forsake the vices to which they had been addicted while they remained heathens. He recommends justice and charity; and condemns lewdness, obscenity, and intemperance. In the sixth chapter he points out the duties of husbands and wives, parents and children, masters and servants, &c.

The church at PHILIPPI had been founded by Paul, Silas, and Timothy (Acts xvi.) in 51, and had continued to show a strong attachment to the Christian religion, and a tender affection for the apostle. Hearing of his imprisonment at

Rome, they sent Epaphroditus, one of their pastors, to supply him with money. It appears from this epistle that he was in great want of necessaries before this contribution arrived, for, as he had not converted the Romans, he did not consider himself as entitled to receive supplies from them. Being a prisoner, he could not work; and it was his maxim never to accept any pecuniary assistance from those churches where a faction had been raised against him. From the Philippians he was not averse to receive a present, as he considered it as a mark of their affection.

This letter was written while he was a prisoner at Rome (chap. i. 7, 13; iv. 22); and from the expectation which he discovers (chap. ii. 24) of being soon released and restored to them, compared with Philemon ver. 22, and Heb. xiii. 13, where he expresses a like expectation in stronger terms, it is probable that it was written towards the end of his first imprisonment in 62. His design in this epistle seems 'o be to comfort the Philippians under the concern they had expressed at his imprisonment; to check a party spirit that had broken out among them; to promote union and harmony; to guard them against being seduced by Judaizing teachers; to support them under their trials; and to inspire them with a desire to adorn their profession by the most eminent attainments. After some admonitions, in the beginning of the fourth chapter, he, in the eighth verse, recommends virtue in the most extensive sense. Towards the close, he makes his acknowledgments to the Philippians for the reasonable and liberal supply which they had sent him, as a proof of their affection for him, and their concern for the support of the gospel.

The Epistle to the COLOSSIANS was written while Paul was in prison (chap. iv. 3), about A. D. 62. The intention of it was to secure the Colossians from some erroneous doctrines, and to excite them to a behaviour worthy of their sacred character. A new sect had arisen, which had blended the oriental philosophy with the superstitious opinions of the Jews. See GNOSTICS.

Against these doctrines Paul argues with great skill and address. He describes the dignity of Jesus Christ; declares that he had created all things, whether thrones or dominions, principalities or powers; that he alone was the head of the church, and had reconciled men to the Father: that Jesus was superior to angels; that they were created beings, and ought not to be worshipped.

He censures the observation of the Jewish Sabbath; rebukes those who required abstinence from certain kinds of food; and cautions them against persons who assume a great appearance of wisdom and virtue: chap. ii. In the third chapter he exhorts them, that, instead of external ceremonies, they ought to cultivate pure morality. He guards them against impurity, to which they had before their conversion been much addicted. He admonishes them against the irascible passions, and falsehood. He exhorts them to cultivate the benevolent affections, humility, patience, and all the relative duties, with prayer and thanksgiving: chap. iv. 2.

The First Epistle to the THESSALONIANS is addressed to the inhabitants of Thessalonica, the capital of Macedonia. It appears from the Acts (xvii. 1), that the Christian religion was introduced into this city by Paul and Silas, soon after they had left Philippi. At first they made many converts; but at length the Jews stirred up the rabble, which assaulted the house where the apostle and his friends lodged, so that Paul and Silas were obliged to flee to Berea. The apostle then withdrew to Athens; and Timothy, at his desire, returned to Thessalonica (1 Thess. iii. 2), to see what were the sentiments of the inhabitants after the persecution. Paul went to Corinth, where he stayed eighteen months; during which Timothy returned with the joyful tidings that the Thessalonians remained steadfast to the faith, and firmly attached to the apostle, notwithstanding his flight. Upon this he sent them this epistle, A. D. 52, in the twelfth year of Claudius.

The intention of Paul in writing this epistle was evidently to encourage the Thessalonians to adhere to the Christian religion. This church being still in its infancy, and oppressed by the Jews, required to be established in the faith. St. Paul, therefore, in the first three chapters, endeavours to convince the Thessalonians of the truth of his gospel, both by the miraculous gifts of the Holy Ghost which had been imparted, and by his own conduct when among them.

He expresses a strong affection for them; mentions it to their honor that they received the gospel as the word of God and not of man; expresses a strong desire to visit them; and concludes with various exhortations.

The Second Epistle to the THESSALONIANS appears to have been written soon after the first, and from the same place; for Silvanus, or Silas, and Timothy are joined with the apostle in the address of this epistle, as well as of the former. Paul begins with commending the faith and charity of the Thessalonians; expresses great joy on account of the patience with which they supported persecution; and observes that their persecution was a proof of a righteous judgment to come, where their persecutors would meet with a proper recompense, and the righteous be delivered out of all their afflictions.

From misunderstanding a passage in his former letter, the Thessalonians believed the day of judgment was at hand. To rectify this mistake, he informs them that the day of the Lord will not come till a great apostasy has overspread the Christian world, the nature of which he describes. Dr. Hurd explains this of the papal power, to which it applies with astonishing exactness. Symptoms of this mystery of iniquity had then appeared; but the apostle expresses his thankfulness to God that the Thessalonians had escaped this corruption. He then proceeds to correct some irregularities. Many of the Thessalonians seem to have led a disorderly life; these he severely reproveth, and commands the faithful to shun their company if they remained incorrigible.

When the First Epistle to TIMOTHY was written it is difficult to ascertain. Lardner dates it in 56; Mill, Whitty, and Macknight, place it

in 64. Timothy was the intimate friend and companion of Paul, and is always mentioned by that apostle with much affection and esteem. Having appointed him to superintend the church of Ephesus, during a journey which he made to Macedonia, he wrote this letter to direct him how to discharge the important trust. This was the more necessary as Timothy was young and inexperienced: 1 Tim. iv. 12.

In the second chapter he prescribes the manner in which the worship of God was to be performed in the church of Ephesus; and in the third explains the qualifications of the persons whom he was to ordain as bishops and deacons. In the fourth he foretels the great corruptions of the church which were to prevail in future times. In the fifth and sixth he teaches Timothy how to admonish both old and young; and gives rules respecting widows, elders, slaves, trifling controversies, and the excessive love of money.

That the Second Epistle to TIMOTHY was written from Rome is universally agreed; but the precise date is uncertain. Timothy was at Ephesus or in Asia Minor when this epistle was sent to him. The false teachers who had before thrown this church into confusion grew every day worse; inasmuch that not only Hymenæus, but Philetus, another Ephesian heretic, now denied the resurrection. They were led into this error by a dispute about words. At first they only annexed various improper significations to the word resurrection, but at last they denied it altogether.

Neither the date of the Epistle to TITUS, whom Paul had appointed over the church of Crete, nor the place from which it was sent, is ascertained. The apostle reminds Titus of the reasons for which he had left him at Crete; and directs him how to act in ordaining Christian pastors: chap. i. He advises him to accommodate his exhortations to the respective ages, sexes, and circumstances of those whom it was his duty to instruct; and to give an example of what he taught c. ii.: He exhorts him also to teach obedience to the civil magistrate, because the Judaizing Christians affirmed that no obedience was due from the worshippers of the true God to magistrates who were idolaters. He cautions against censoriousness and contention; recommends meekness; and to avoid useless controversies; and concludes with directing him how to proceed with heretics.

The Epistle to PHILEMON was written from Rome at the same time with the epistles to the Colossians and Philippians and A. D. 62 or 63. The occasion of the letter was this: Onesimus, Philemon's slave, had robbed his master, and fled to Rome; where, happily, he met with the apostle, who was then a prisoner at large, and by his instructions was converted to Christianity, and reclaimed to a sense of his duty. St. Paul, when he had made a sufficient trial of him, and found that his behaviour was entirely agreeable to his profession, sent him back to his master, and, as a mark of his esteem, entrusted him, together with Tychicus, with the charge of delivering his epistle to the church at Colosse, and giving them a particular account of the state of things at Rome, recommending him to them, at the same

time, as a faithful and beloved brother : Col. iv. 9. And, as Philemon might well be supposed to be strongly prejudiced against one who had left his service in so infamous a manner, he sends him this letter, in which he employs all his influence to remove suspicions, and reconcile him to the *making Onesimus into his family again.* See PHILEMON.

It is impossible to read over this admirable epistle without being touched with the delicacy of sentiment, and the masterly address that appear in every part of it. We see here, in a most striking light, how perfectly consistent true politeness is, not only with all the warmth and sincerity of the friend, but even with the dignity of the Christian and the apostle. And, if this letter were to be considered in no other view than as a mere human composition, it must be allowed a master-piece in its kind. As an illustration of this remark, it may not be improper to compare it with an epistle of Pliny, that seems to have been written upon a similar occasion (lib. ix. ep. 21); which, though it has many beauties, and was penned by one that is reckoned to excel in the epistolary style, yet must be acknowledged, by every impartial reader, vastly inferior to this animated composition of the apostle.

The Epistle to the HEBREWS has been generally ascribed to Paul; but the truth of this opinion has been suspected by others for three reasons:—1. The name of the writer is nowhere mentioned, neither in the beginning nor in any other part of the epistle. 2. The style is said to be more elegant than Paul's. 3. There are expressions in the epistle which have been thought unsuitable to an apostle's character. 1. In answer to the first objection, Clemens Alexandrinus has assigned a very good reason: 'Writing to the Hebrews,' says he, 'who had conceived a prejudice against him, and were suspicious of him, he wisely declined setting his name at the beginning, lest he should offend them.' 2. Origen and Jerome admitted the elegance of the style, and reckoned it superior to that which Paul has exhibited in his epistles; but, as ancient testimony had assigned it to Paul, they endeavoured to answer the objection, by supposing that the sentiments were the apostle's, but the language and composition the work of some other person. If the epistle, however, be a translation, which we believe it to be, the elegance of the language may belong to the translator. As to the composition and arrangement, there are many specimens in the writings of this apostle not inferior in these qualities to the epistle to the Hebrews. 3. It is objected that, in Heb. ii. 3, the writer of this epistle joins himself with those who had received the gospel from Christ's apostles. Now Paul had it from Christ himself. But Paul often appeals to the testimony of the apostles in support of those truths which he had received from revelation. See 1 Cor. xv. 5, 6, 7, 8; 2 Tim. ii. 2.

This epistle is not quoted till the end of the second century, and even then does not seem to have been universally received. This silence might be owing to the Hebrews themselves, who, supposing this letter had no relation to the Gentiles, might be at no pains to diffuse

copies of it. The authors, however, on whose testimony we receive it as authentic, are entitled to credit; for they lived so near the age of the apostles that they were in no danger of being imposed on; and, from the numerous list of books which they rejected as spurious, we are assured that they were very careful to guard against imposition. It is often quoted as Paul's by Clemens Alexandrinus about A. D. 194. It is received and quoted as Paul's by Origen, about 230; by Dionysius, bishop of Alexandria, in 247; and by a numerous list of succeeding writers.

The Epistle to the Hebrews was originally written in Hebrew, or rather Syro-Chaldaic; a fact testified by Clemens Alexandrinus, Jerome, and Eusebius. To this it has been objected that, as these writers have not referred to any authority, we can only consider this as an opinion. But as they state no reasons for adopting this opinion, but only mention as a fact that Paul wrote to the Hebrews in their native language, we must allow that it is their testimony which they produce, and not their opinion. Eusebius informs us that some supposed Luke the evangelist, and others Clemens Romanus, to have been the translator. According to Clemens Alexandrinus, Jerome, and Euthalius, this epistle was addressed to the Jews in Palestine. The scope of the epistle confirms this opinion.—The time when it was written may be easily determined; for the salutation from the saints of Italy (c. iv. 24), together with the apostle's promise to see the Hebrews (v. 23), plainly intimate that his confinement was then either ended or on the eve of being ended. It must therefore have been written soon after the epistles to the Colossians, Ephesians, and Philemon, and not long before Paul left Italy, that is, A. D. 61 or 62.

As the zealous defenders of the Mosaic law would naturally insist on the divine authority of Moses, on the majesty and glory attending its promulgation by the ministry of angels, and the great privileges it afforded those who adhered to it; the apostle shows—

I. That in all these articles Christianity had an infinite superiority to the law. This topic he pursues from c. i. to xi., wherein he reminds the believing Hebrews of the extraordinary favor shown them by God, in sending them a revelation by his own Son, whose glory was far superior to that of angels (c. i.); very naturally inferring from hence the danger of despising Christ on account of his humiliation, which, in perfect consistence with his dominion over the world to come, was voluntarily submitted to by him for wise and important reasons; particularly to deliver us from the fear of death, and to encourage the freedom of our access to God: c. ii. With the same view he magnifies Christ as superior to Moses, their great legislator; and, from the punishment inflicted on those who rebelled against the authority of Moses, infers the danger of contemning the promises of the gospel: c. iii. 2—13. And, as it was an easy transition to call to mind on this occasion that rest in Canaan to which the authority invested in Moses was intended to lead them, the apostle hence cautions them against unbelief, as what would prevent their entering

into a superior state of rest to what the Jews ever enjoyed: c. iii. 14, iv. 11. This caution is still farther enforced by awful views of God's omniscience, and a lively representation of the high-priesthood of Christ (c. iv. and v. to the end). In the next place he intimates the very hopeless situation of those who apostatise from Christianity (c. vi. 1—9); and then, for the comfort and confirmation of sincere believers, displays to them the goodness of God, and his faithful adherence to his holy engagements; the performance of which is sealed by the entrance of Christ into heaven as our forerunner: c. vi. 9, to the end. Still farther to illustrate the character of our Lord, he enters into a parallel between him and Melchizedec as to their title and descent; and, from instances wherein the priesthood of Melchizedec excelled the Levitical, infers that the glory of the priesthood of Christ surpassed that under the law: c. vii. 1—17. From these premises the apostle argues that the Aaronical priesthood was not only excelled, but consummated by that of Christ, to which it was only introductory and subservient; and of course that the obligation of the law was henceforth dissolved: c. vii. 18, to the end. Then recapitulating what he had already demonstrated, concerning the superior dignity of Christ's priesthood, he thence illustrates the distinguished excellence of the new covenant, as not only foretold by Jeremiah, but evidently enriched with much better promises than the old (c. viii. throughout); explaining further the doctrine of the priesthood and intercession of Christ, by comparing it with what the Jewish high priest did on the great day of atonement: c. ix. 1—14. Afterwards he enlarges on the necessity of shedding Christ's blood, and the sufficiency of the atonement made by it (c. ix. 15, to the end); and proves that the legal ceremonies could not by any means purify the conscience; whence he infers the insufficiency of the Mosaic law, and the necessity of looking beyond it: c. x. 1—15. He then urges the Hebrews to improve the privileges which such a high priest and covenant conferred on them, to the purposes of approaching God with confidence, to a constant attendance on his worship, and most benevolent regards to each other: c. x. 15—25. The apostle having thus obviated the insinuations and objections of the Jews, for the satisfaction and establishment of the believing Hebrews, proceeds,

II. To prepare and fortify their minds against the storm of persecution which in part had already befallen them, and which was likely to continue and be often renewed, he reminds them of those extremities they had endured, and of the fatal effects which would attend their apostasy (chap. x. 26, to the end); calling to their remembrance the eminent examples of faith and fortitude exhibited by holy men, and recorded in the Old Testament, (chap. xi. 1—29). He concludes his discourse with glancing at many other illustrious worthies; and, besides those recorded in Scripture, refers to the case of several who suffered under the persecution of Antiochus Epiphanes: 2 Mac. chap. viii. &c., xi. 30, xii. 2. Having thus finished the argumentative part of the epis-

tle, the apostle proceeds to a general application in which he exhorts the Hebrew Christians to patience, peace, and holiness (chap. xii. 3—14); cautions them against secular views and sensual gratifications, by laying before them the incomparable excellence of the blessings introduced by the gospel, which even the Jewish economy, glorious and magnificent as it was, did by no means equal; exhorts them to brotherly affection, purity, compassion, dependence on the divine care, stedfastness in the profession of truth, a life of thankfulness to God, and benevolence to man; and concludes the whole with recommending their pious ministers to their particular regard, entreating their prayers, saluting and granting them his usual benediction.

The seven following epistles, one of James, two of Peter, three of John, and one of Jude, have been distinguished by the appellation of Catholic or general epistles, because most of them are inscribed, not to particular churches or persons, but to the body of Jewish or Gentile converts over the world. The authenticity of some of these has been questioned, viz. the Epistle of James, the second of Peter, the Epistle of Jude, and the second and third of John. The ancient Christians were very cautious in admitting any books into their canon whose authenticity they had any reason to suspect. They rejected all the writings forged by heretics in the name of the apostles, and certainly, therefore, would not receive any without first subjecting them to a severe scrutiny. Now, though these seven epistles were not immediately acknowledged as the writings of the apostles, this only shows that the persons who doubted had not received complete and incontestable evidence of their authenticity. But, as they were afterwards universally received, we have every reason to conclude, that upon a strict examination they were found to be the genuine productions of the apostles. The truth is, so good an opportunity had the ancient Christians of examining this matter, so careful were they to guard against imposition, and so well founded was their judgment concerning the books of the New Testament, that, as Dr. Lardner observes, no writing which they pronounced genuine has yet been proved spurious, nor have we at this day the least reason to believe any book genuine which they rejected.

That the Epistle of JAMES was written in the apostolical age is proved by the quotations of Clemens Romanus, Ignatius, and Origen. There are several reasons why it was not more generally quoted by the first Christian writers. Being written to correct the errors and vices which prevailed among the Jews, the Gentiles might think it of less importance to them, and therefore take no pains to procure copies of it. As the author was sometimes denominated James the Just, and often called bishop of Jerusalem, it might be doubted whether he was one of the apostles. But its authenticity does not seem to have been suspected on account of the doctrines which it contains. In modern times, indeed, Luther called it a strawy epistle (*epistola straminea*), and excluded it from the sacred writings, on account of its apparent opposition to the

apostle Paul concerning justification by faith. This epistle could not be written by James the elder, the son of Zebedee, and brother of John, who was beheaded by Herod, A. D. 44; for it contains passages which refer to a later period. It must, therefore, have been the composition of James the Less, the son of Alphaeus, who was called the Lord's brother, because he was the son of Mary, the sister of our Lord's mother. Lardner fixes the date in the year 61 or 62.

James the Less stately resided at Jerusalem, whence he was styled by some ancient fathers bishop of that city, though without sufficient foundation. Now James being one of the apostles of the circumcision, while he confined his personal labors to the inhabitants of Judea, it was natural for him to endeavour, by his writings, to extend his services to the Jewish Christians who were dispersed abroad in more distant regions. For this purpose there are two points which the apostle seems to have principally aimed at, though he did not pursue them in an orderly and logical method, but in the free epistolary manner, handling them jointly or distinctly as occasions naturally offered. And these were 'to correct those errors both in doctrine and practice into which the Jewish Christians had fallen, which might otherwise have produced fatal consequences; and then to establish the faith and animate the hope of sincere believers, both under their present and their approaching sufferings.' The opinions which he is most anxious to refute are these, that God is the author of sin (ch. i. 13); and that the belief of the doctrines of the gospel was sufficient to procure the favor of God for them, however deficient they were in good works: chap. ii. He dissuades the Jews in the third chapter from aspiring to the office of teachers, because their prejudices in favor of the law of Moses might induce them to pervert the doctrines of the gospel. He therefore guards them against the sins of the tongue, by representing their pernicious effects; and as they thought themselves wise and intelligent, and were ambitious of becoming teachers, he advises them to make good their pretensions, by showing themselves possessed of that wisdom which is from above: chap. iii.

The destruction of Jerusalem was now approaching; the Jews were split into factions, and often slaughtered one another; the apostle, therefore, in the fourth chapter admonishes them to purify themselves from those vices which produced tumults and bloodshed. To rouse them to repentance, he foretells the miseries that were coming upon them. Lastly, he checks an irreligious spirit that seems to have prevailed, and concludes the epistle with several exhortations.

The authenticity of the first Epistle of PETER has never been denied. It is referred to by Clements Romanus, and Polycarp, and is quoted by Papias, Irenæus, Clemens Alexandrinus, and Tertullian. It is addressed to the strangers scattered through Pontus, &c., who are evidently Christians in general, as appears from chap. ii. 10. From Peter's sending the salutation of the church at Babylon to the Christians in Pontus, &c., it is generally believed that he wrote it in Babylon. There was a Babylon in Egypt and

another in Assyria. It could not be the former; for it was an obscure place, which seems to have had no church for the first four centuries. We have no authority to affirm that Peter was in Assyria. The most probable opinion is that of Grotius, Whitby, Lardner, as well as of Eusebius, Jerome, and others, that by Babylon Peter figuratively means Rome. Lardner dates it in 63, 64, or 65. St. Peter's chief design is to confirm the doctrine of St. Paul, which the false teachers pretended he was opposing, and to assure the proselytes that they stood in the true grace of God: chap. v. 12. With this view he calls them elect and mentions that they had been declared such by the effusion of the Holy Ghost upon them: chap. i. 1, 2. He assures them that they were regenerate without circumcision, merely through the gospel and the resurrection of Christ (ver. 3, 4. 21—25); and that their sufferings were no argument of their being under the displeasure of God, as the Jews imagined: ver. 6—12. He recommends it to them to hope for grace to this end: ver. 13. He testifies that they were not redeemed by the paschal lamb, but through Christ, whom God had pre-ordained for this purpose before the foundation of the world: ver. 18—20.

The second Epistle of PETER is not mentioned by any ancient writer extant till the fourth century, from which time it has been received by all Christians, except the Syrians. Jerome acquaints us that its authenticity was disputed, on account of a remarkable difference between the style of it and the former epistle. But this remarkable difference in style is confined to the second chapter of the second epistle. No objections, however, can be drawn from this circumstance; for the subject of that chapter is different from the rest of Peter's writings, and nothing is so well known as that different subjects suggest different styles. Peter, in describing the character of some flagitious impostors, feels an indignation which he cannot suppress; it breaks out, therefore, in the bold and animated figures of an oriental writer. Such a diversity of style is not uncommon in the best writers, especially when warmed with their subject. This objection being removed, we contend that this epistle was written by Peter, from the inscription, Simon Peter, a servant and an apostle of Jesus Christ. It appears from chap. i. 16, 17, 18, that the writer was one of the disciples who saw the transfiguration of our Saviour. Since it has never been ascribed to James or John, it must therefore have been Peter. It is evident, from chap. iii. 1, that the author had written an epistle before to the same persons, which is another circumstance that proves Peter to be the author.

It is acknowledged, however, that all this evidence is merely internal; for there is no external evidence upon the subject. Some, therefore, have contended, that if the credit which we give to any fact is to be in proportion to the degree of evidence with which it is accompanied, we must allow more authority to the gospels than to the epistles; more to those epistles which have been generally acknowledged than to those which have been controverted, &c. To us it

seems that sufficient evidence of *inspiration* being obtained is the main point. Yet one way of determining the essential doctrines of Christianity would be to examine what are the doctrines which occur oftenest in the gospels; for the gospels are the plainest parts of the New Testament, and their authenticity is most completely proved. Nor will it be denied that our Saviour taught all the doctrines of the Christian religion himself; that he repeated them on different occasions, and inculcated them with an earnestness proportionable to their importance. The epistles are to be considered as a commentary on the essential doctrines of the gospel, adapted to the situation and circumstances of particular churches, and perhaps sometimes explaining doctrines of inferior importance. 1. The essential doctrines are therefore first to be sought for in the gospels, and to be determined by the number of times they occur. 2. In the uncontroverted epistles, in the same manner. 3. No essential doctrine ought to be founded on a single passage, nor on the authority of a controverted passage.

That Peter was old, and near his end, when he wrote this epistle, may be inferred from chap. i. 14: 'Knowing that shortly I must put off this tabernacle, even as our Lord Jesus has shown me.' Lardner thinks it was written soon after the former. Others date it in 67. The general design of it is to confirm the doctrines and instructions delivered in the former; 'to excite the Christian converts to adorn, and steadfastly adhere to their holy religion, as a religion proceeding from God, notwithstanding the artifices of false teachers, whose character is described; or the persecution of their inveterate enemies.'

The first Epistle of JOHN is ascribed by the unanimous suffrage of the ancients to the beloved disciple of our Lord. It is referred to by Polycarp, is quoted by Papias, by Irenæus, and was received as genuine by Clemens Alexandrinus, by Dionysius of Alexandria, by Cyprian, Origen, and Eusebius. There is such a resemblance between the style and sentiments of this epistle and those of St. John's gospel, as to afford the highest degree of internal evidence that they are the compositions of the same author. In the style of this apostle there is a remarkable peculiarity, and especially in this epistle. His sentences, considered separately, are exceedingly clear and intelligible; but, when we search for their connexion, we frequently meet with greater difficulties than we do even in the epistles of St. Paul. The principal signature and characteristic of his manner is an artless and amiable simplicity, and a singular modesty and candor, in conjunction with a wonderful sublimity of sentiment. His conceptions are apparently delivered to us in the order in which they arose to his own mind, and are not the product of artificial reasoning or labored investigation. It is impossible to fix with any precision the date of this epistle, nor can we determine to what persons it was addressed.

The leading design of the apostle is to show the insufficiency of faith, and the external profession of religion, separate from morality; to guard Christians against the delusive arts of the

corrupters of Christianity, whom he calls Antichrist; and to inculcate universal benevolence. His admonitions concerning the necessity of good morals, and the inefficacy of external professions, are scattered over the epistle, but are most frequent in the first, second, and third chapters. The enemies or corrupters of Christianity against whom he contends, seem to have denied that Jesus was the Messiah, the Son of God (chap. ii. 22, v. 1), and had actually come into the world in a human form: chap. iv. 2, 3. The earnestness and frequency with which this apostle recommends benevolence is remarkable. He makes it the distinguishing characteristic of the disciples of Jesus, the only sure pledge of our love to God, and the only assurance of eternal life: chap. iii. 14, 15. Benevolence was his favorite theme, which he affectionately pressed upon others, and constantly practised himself. It was conspicuous in his conduct to his great Master, and in the reciprocal affection which it inspired in his sacred breast. He continued to recommend it in his last words. When his extreme age and infirmities had so wasted his strength, that he was incapable to exercise the duties of his office, the venerable old man, anxious to exert in the service of his Master the little strength which still remained, caused himself to be carried to church, and in the midst of the congregation he repeated these words, 'Little children love one another.'

It has been observed by Dr. Mill that the second and third epistles of JOHN are so short, and resemble the first so much in sentiment and style, that it is needless to contend about them. The second epistle consists only of thirteen verses, and of these eight may be found in the first epistle, in which the sense or language is precisely the same. The second epistle is quoted by Irenæus, and was received by Clemens Alexandrinus. Both were admitted by Athanasius, by Cyril of Jerusalem, and by Jerome. The second is addressed to a woman of distinction, whose name is by some supposed to be Cyria (taking *κυρια* for a proper name), by others Electa. The third is inscribed to Gaius or Caius, according to the Latin orthography, who, in the opinion of Lardner, was an eminent Christian, that lived in some city of Asia not far from Ephesus, where St. John chiefly resided after his leaving Judea. Or he may be the Gaius whom Paul calls his host, in Rom. xvi. 23. The time of writing these two epistles cannot be determined with any certainty. They are so short that an analysis of them is not necessary.

The Epistle of JUDE is cited by no ancient Christian writer extant before Clemens Alexandrinus about the year 194; but this author has transcribed eight or ten verses in his Stromata and Pedagogue. It is quoted once by Tertullian about the year 200; by Origen frequently about 230. It was not however received by many of the ancient Christians, on account of a supposed quotation from a book of Enoch. But it is not certain that Jude quotes any book. He only says that, 'Enoch prophesied, saying, the Lord cometh with ten thousand of his saints.' These might be words of a prophecy preserved by tradition, and inserted occasionally in different

writings. Nor is there any evidence that there was such a book as Enoch's Prophecies in the time of Jude, though a book of that name was extant in the second and third centuries. As to the date of this epistle, nothing beyond conjecture can be produced. The design of it is, by describing the character of the false teachers, and the punishments to which they were liable, to caution Christians against listening to their suggestions, and being thereby perverted from the faith and purity of the gospel.

V.—*Of the Revelation of St. John.*—The APOCALYPSE or REVELATION has not always been unanimously received as the genuine production of the apostle John. Its authenticity is proved, however, by the testimony of many respectable authors of the first centuries. It is referred to by the martyrs of Lyons; it was admitted by Justin Martyr as the work of the apostle John. It is often quoted by Irenæus, by Theophilus bishop of Antioch, by Clement of Alexandria, Tertullian, Origen, and Cyprian of Carthage. It was also received by heretics, as Novatians and his followers, the Donatists, and the Arians. For the first two centuries no part of the New Testament was more universally acknowledged, or mentioned with higher respect. But, a dispute having arisen about the millennium, Caius, with some others, about 212, to end the controversy as speedily and effectually as possible, ventured to deny the authority of the book which had given occasion to it.

The book of Revelation, as we learn from ch. i. 9, was written in the Isle of Patmos. According to the general testimony of ancient authors, John was banished into Patmos in the reign of Domitian, and restored by his successor Nerva. But the book could not be published till after John's release, when he returned to Ephesus. As Domitian died in 96, and his persecution did not commence till near the end of his reign, the Revelation might therefore be published in 97.

As our readers may wish to be informed how the predictions revealed in this book of St. John have usually been interpreted and applied, we subjoin a key to the prophecies contained in the Revelation, extracted from the learned dissertations of Dr. Newton, bishop of Bristol, vol. iii., to which the reader is referred for a more full illustration of the several parts, as the conciseness of our plan only admits a short analysis of them.

Nothing of a prophetic nature occurs in the first three chapters, except, 1. What is said concerning the church of Ephesus, 'that her candlestick shall be removed out of its place,' which is now verified, not only in this, but in all the other Asiatic churches which existed at that time; the light of the Gospel having been taken from them, not only by their heresies and divisions from within, but by the arms of the Saracens from without; and, 2. Concerning the church of Smyrna, that she shall 'have tribulation ten days;' that is, in prophetic language, ten years, referring to the persecution of Dioclesian, which alone of all the general persecutions lasted so long.

The next five chapters relate to the opening of

the seven seals; and by these seals are intimated so many different periods of the prophecy. Six of these seals are opened in the sixth and seventh chapters.

The first seal or period is memorable for conquests. It commences with Vespasian, and terminates in Nerva; and during this time Judea was subjugated. The second seal is noted for war and slaughter. It commences with Trajan, and continues through his reign, and that of his successors. In this period the Jews were entirely routed and dispersed; and great was the slaughter and devastation occasioned by the contending parties. The third seal is characterised by a rigorous execution of justice, and an abundant provision of corn, wine, and oil. It commences with Septimius Severus. He and Alexander Severus were just and severe emperors, and at the same time highly celebrated for the regard they paid to the felicity of their people, by procuring them plenty of every thing, and particularly corn, wine, and oil. This period lasted during the reigns of the Septimian family. The fourth seal is distinguished by a concurrence of evils, such as war, famine, pestilence, and wild beasts; by all which the Roman empire was remarkably infected from the reign of Maximin to that of Dioclesian. The fifth seal begins at Dioclesian, and is signalised by the great persecution, from whence arose that memorable era, the era of martyrs. With Constantine begins the sixth seal, a period of revolutions, pictured forth by great commotions in earth and in heaven, alluding to the subversion of Paganism and the establishment of Christianity. This period lasted from the reign of Constantine the Great to that of Theodosius I. The seventh seal includes under it the remaining parts of the prophecy, and comprehends seven periods distinguished by the sounding of seven trumpets.

As the seals foretold the state of the Roman empire before and till it became Christian, so the trumpets foreshow the fate of it afterwards; each trumpet being an alarm to one nation or other, rousing them up to overthrow that empire. Four of these trumpets are sounded in the eighth chapter.

At the sounding of the first trumpet, Alaric and his Goths invade the Roman empire, besiege Rome twice, and set it on fire in several places. See *ROME*. At the sounding of the second, Attila and his Huns waste the Roman provinces, and compel the eastern emperor Theodosius II., and the western emperor Valentinian III., to submit to shameful terms. At the sounding of the third, Genseric and his Vandals arrive from Africa; spoil and plunder Rome, and set sail again with immense wealth and innumerable captives. See *ROME*. At the sounding of the fourth trumpet, Odoacer and the Heruli put an end to the very name of the western empire. See *ROME*. Theodoric founds the kingdom of the Ostrogoths in Italy; and at last Italy becomes a province of the eastern empire, Rome being governed by a duke under the exarch of Ravenna. See *ITALY*. As the foregoing trumpets relate chiefly to the downfall of the western empire, so do the two following to that of the eastern. They are sounded in the ninth, tenth, and part of the eleventh chap-

ers. At the sounding of the fifth trumpet, Mahomet, that blazing star, appears, opens the bottomless pit, and with his locusts, the Arabians, darkens the sun and air. At the sounding of the sixth, a period not yet finished, the four angels, that is, the four sultans, or leaders of the Turks and Othmans, are loosed from the river Euphrates. The Greek or Eastern empire was cruelly 'hurt and tormented' under the fifth trumpet; but under the sixth it was 'slain,' and utterly destroyed.

The Latin or Western church not being reclaimed by the ruin of the Greek or Eastern, but still persisting in their idolatry and wickedness; at the beginning of the tenth chapter, and under the sound of the sixth trumpet, is introduced a vision preparative to the prophecies respecting the Western church, wherein an angel is represented, having in his hand a little book, or codicil, describing the calamities that should overtake that church. The measuring of the temple shows, that during all this period there will be some true Christians, who will conform themselves to the rule of God's word, even whilst the outer court, that is, the external and more extensive part of this temple or church, is trodden under foot by Gentiles, i. e. such Christians as, in their idolatrous worship and persecuting practice, resemble and outdo the Gentiles themselves. Yet against these corrupters of religion there will be always some true witnesses to protest, who, however they may be overborne at times, and in appearance reduced to death, yet will arise again from time to time, till at last they triumph and gloriously ascend. The eleventh chapter concludes with the sounding of the seventh trumpet.

In the twelfth chapter, by the woman bearing a man-child is to be understood the Christian church; by the great red dragon, the heathen Roman empire; by the man-child whom the woman bore, Constantine the Great; and by the war in heaven, the contests between the Christian and Heathen religions.

In the thirteenth chapter, by the beast with seven heads and ten horns, unto whom the dragon gave his power, seat, and great authority, is to be understood not Pagan but Christian, not imperial but papal Rome; in submitting to whose religion, the world did in effect submit again to the religion of the dragon. The ten-horned beast, therefore, represents the Romish church and state in general; but the beast with two horns like a lamb is the Roman clergy; and that image of the ten-horned beast, which the two-horned beast caused to be made, and inspired with life, is the pope; whose number is 666, according to the numerical powers of the letters constituting the Roman name *Aarēivoc*, Latinus, or its equivalent in Hebrew, רומיית *Romiith*.

A	30	200	ך
A	1		6
T	300		40
E	5		10
I	10		10
N	50		400
O	70		
Σ	200		

Chap. xvi. By the lamb on Mount Sion is meant Jesus; by the 144,000 his church and followers; by the angel preaching his everlasting gospel, the first principal effort made towards a reformation by that public opposition formed against the worship of saints and images by emperors and bishops in the eighth and ninth centuries; by the angel crying, 'Babylon is fallen,' the Waldenses and Albigenes, who pronounced the church of Rome to be the Apocalyptic Babylon, and denounced her destruction; and by the third angel, Martin Luther, and his fellow reformers, who protested against all the corruptions of the church of Rome, as destructive to salvation.

The following very excellent canons of interpretation, in respect to this book, have been recently proposed by Dr. Woodhouse, who has himself, applied them with great success to its exposition:—

1. Compare the language, the symbols, and the predictions of the Apocalypse with those of former revelations; and admit only such interpretation as shall appear to have the sanction of this divine authority.

2. Unless the language and symbols of the Apocalypse should in particular passages direct, or evidently require, another mode of application, the predictions are to be applied to the progressive church of Christ.

3. The kingdom which is the subject of this prophetic book is not a temporal, but a spiritual kingdom;—'not a kingdom of this world;' not established by the means and apparatus of worldly pomp, not bearing the external ensigns of royalty; but governing the inward man, by possession of the ruling principles: 'the kingdom of God,' says our Lord, 'is within you.' Luke xvii. 21. The predictions relative to this kingdom, therefore, are to be spiritually interpreted. Wars, conquests, and revolutions, and vast extent and great political import, are not the object of the Apocalyptic prophecies, unless they appear to have promoted or retarded in a considerable degree the real progress of the religion of Jesus Christ, whose proper reign is in the hearts and consciences of his subjects. His reign is advanced when Christian principles, when faith, and righteousness, and charity abound. It is retarded when ignorance, impurity, idolatrous superstition, and wickedness prevail.

4. We are not to attempt the particular explanation of those prophecies which remain to be fulfilled.

For an account of the doctrines and precepts contained in the Scriptures, see THEOLOGY.

We cannot conclude this article more satisfactorily to our own minds, nor to that, we would hope, of a large majority of our readers, than in the admirable remarks of Dr. Chalmers on the *Supreme Authority of the Scriptures*.

'If the New Testament be a message from God, it behoves us to make an entire and unconditional surrender of our minds, to all the duty and to all the information which it sets before us. There is, perhaps, nothing more thoroughly beyond the cognizance of the human faculties than the truths of religion, and the ways of the

mighty and invisible Being who is the object of it; and yet nothing, we will venture to say, has been made the subject of more hardy and adventurous speculation. We make no allusion at present to Deists, who reject the authority of the New Testament because the plan and the dispensation of the Almighty, which is recorded there, is different from that plan and that dispensation which they have chosen to ascribe to him. We speak of Christians who profess to admit the authority of this record, but who have tainted the purity of their profession by not acting upon its exclusive authority; who have mingled their own thoughts and their own fancy with its information; who, instead of repairing in every question, and in every difficulty, to the principle of 'What readeest thou?' have abridged the sovereignty of this principle, by appealing to others, of which we undertake to make out the incompetency; who, in addition to the word of God, talk also of the reason of the thing, or the standard of orthodoxy; and have in fact brought down the Bible from the high place which belongs to it, as the only tribunal to which the appeal should be made, or from which the decision should be looked for.

'It is not merely among partizans or the advocates of a system that we meet with this indifference to the authority of what is written. It lies at the bottom of a great deal of that looseness, both in practice and speculation, which we meet with every day in society, and which we often hear expressed in familiar conversation. Whence that list of maxims which are so indolently conceived, but which, at the same time, are so faithfully proceeded upon? 'We have all our passions and infirmities; but we have honest hearts, and that will make up for them. Men are not all cast in the same mould. God will not call us to task too rigidly for our foibles; at least this is our opinion, and God can never be so unmerciful, or so unjust, as to bring us to a severe and unforgiving tribunal for the mistakes of the understanding.' Now, it is not licentiousness in general, which we are speaking against. It is against that sanction which it appears to derive from the self-formed maxims of him who is guilty of it. It is against the principle that either an error of doctrine, or an indulgence of passion, is to be exempted from condemnation, because it has an opinion of the mind to give it countenance and authority. What we complain of is, that a man no sooner sets himself forward and says, 'this is my sentiment,' than he conceives that all culpability is taken away from the error, either of practice or speculation, into which he has fallen. The carelessness with which the opinion has been formed is of no account in the estimate. It is the mere existence of the opinion which is pleaded in vindication, and under the authority of our maxim, and our mode of thinking, every man conceives himself to have a right to his own way and his own peculiarity.

'Now this might be all very fair were there no Bible and no revelation in existence. But it is not fair that all this looseness, and all this variety, should be still floating in the world, in the face of an authoritative communication from God

himself. Had no message come to us from the fountain-head of truth, it were natural enough for every individual mind to betake itself to its own speculation. But a message has come to us, bearing on its forehead every character of authenticity; and is it right now, that the question of our faith, or of our duty, should be committed to the capricious variations of this man's taste, or of that man's fancy? Our maxim, and our sentiment! God has put an authoritative stop to all this. He has spoken, and the right or the liberty of speculation no longer remains to us. The question now is not 'What thinkest thou?' In the days of Pagan antiquity no other question could be put; and the wretched delusions and idolatries of that period let us see what kind of answer the human mind is capable of making, when left to its own guidance, and its own authority. But we call ourselves Christians, and profess to receive the Bible as the directory of our faith; and the only question in which we are concerned is, 'What is written in the law? how readeest thou?'

'Instead of learning the designs and character of the Almighty from his own mouth, we sit in judgment upon them; and make our conjecture of what they should be take the precedence of his revelation of what they are. We do Him the same injustice that we do to an acquaintance, whose proceedings and whose intentions we venture to pronounce upon, while we refuse him a hearing, or turn away from the letter in which he explains himself. No wonder, then, at the want of unanimity among Christians, so long as the question of 'what thinkest thou?' is made the principle of their creed, and, for the safe guidance of criticism, they have committed themselves to the endless caprices of the human intellect. Let the principle of 'what thinkest thou?' be exploded, and that of 'what readeest thou?' be substituted in its place. Let us take our lesson as the Almighty places it before us, and, instead of being the judge of his conduct, be satisfied with the safer and humbler office of being the interpreter of his language.

'This principle is not exclusively applicable to the learned. The great bulk of Christians have no access to the Bible in its original languages; but they have access to the common translation, and they may be satisfied, by the concurrent testimony of the learned among the different sectaries of this country, that the translation is a good one. We do not confine the principle to critics and translators; we press it upon all. We call upon them not to form their divinity by independent thinking, but to receive it by obedient reading, to take the words as they stand, and submit to the plain English of the Scriptures which lie before them. It is the office of a translator to give a faithful representation of the original. Now that this faithful representation has been given, it is our part to peruse it with care, and to take a fair and a faithful impression of it. It is our part to purify our understanding of all its previous conceptions. We must bring a free and unoccupied mind to the exercise. It must not be the pride or the obstinacy of self-formed opinions, or the haughty independence of him who thinks he has reached

the manhood of his understanding. We must bring with us the docility of a child, if we want to gain the kingdom of heaven. It must not be a partial, but an entire and unexcepted obedience. There must be no garbling of that which is entire, no darkening of that which is luminous, no softening down of that which is authoritative or severe. The Bible will allow of no compromise. It professes to be the directory of our faith, and claims a total ascendancy over the souls and the understandings of men. It will enter into no composition with us or our principles. It challenges the whole mind as its due, and it appeals to the truth of heaven for the high authority of its sanctions. 'Whosoever addeth to, or taketh from, the words of this book, is accursed,' is the absolute language in which it delivers itself. This brings us to its terms. There is no way of escaping after this. We must bring every thought into the captivity of its obedience, and, as closely as ever lawyer stuck to his document or his extract, must we abide by the rule and the doctrine which this authentic memorial of God sets before us. Now we hazard the assertion, that with a number of professing Christians there is not this unexcepted submission of the understanding to the authority of the Bible; and that the authority of the Bible is often modified, and in some cases superseded, by the authority of other principles.

'But is not this an enlightened age? he afterwards asks, and, since the days of the gospel, has not the wisdom of 2000 years accumulated upon the present generation? has not science been enriched by discovery? and is not theology one of the sciences. Are the men of this advanced period to be restrained from the high exercise of their powers? and, because the men of a remote and barbarous antiquity lisped and drivelled in the infancy of their acquirements, is that any reason why we should be restricted like so many schoolboys to the lesson that is set before us? It is all true that this is a very enlightened age, but on what field has it acquired so flattering a distinction? On the field of experiment. The human mind owes all its progress to the confinement of its efforts within the safe and certain limits of observation, and to the severe restraint which it has imposed upon its speculative tendencies. Go beyond these limits, and the human mind has not advanced a single inch by its own independent exercises. All the philosophy which has been reared by the labor of successive ages is the philosophy of facts reduced to general laws, or brought under a general description from observed points of resemblance. A proud and a wonderful fabric we do allow; but we throw away the very instrument by which it was built the moment that we cease to observe, and begin to theorise and ex-cogitate. Tell us a single discovery which has thrown a particle of light on the details of the divine administration. Tell us a single truth, in

the whole field of experimental science, which can bring us to the moral government of the Almighty by any other road than *his own revelation*.

'We do all homage to modern science, nor do we dispute the loftiness of its pretensions. But we maintain that, however brilliant its career in those tracts of philosophy where it has the light of observation to conduct it, the philosophy of all that lies without the field of observation is as obscure and inaccessible as ever. We maintain that, to pass from the notions of the moon to an unauthorised speculation upon the chemistry of its materials, is a presumption disowned by philosophy. We ought to feel that it would be a still more glaring transgression of all her maxims, to pass from the brightest discovery in her catalogue, to the ways of that mysterious Being whom no eye hath seen, and whose mind is capacious as infinity. The splendor and the magnitude of what we do know can never authorise us to pronounce upon what we do not know; nor can we conceive a transition more violent, or more unwarrantable, than to pass from the truths of natural science to a speculation on the details of God's administration, or the economy of his moral government. We hear much of revelations from heaven. Let any one of these bear the evidence of an actual communication from God himself, and all the reasonings of all the theologians must vanish, and give place to the substance of this communication. Instead of theorising upon the nature and properties of that divine light which irradiates the throne of God, and exists at so immeasurable a distance from our faculties, let us point our eyes to that emanation which has actually come down to us. Instead of theorising upon the counsels of the divine mind, let us go to that volume which lighted upon our world nearly 2000 years ago, and which bears the most authentic evidence that it is the depository of part of these counsels. Let us apply the proper instrument to this examination. Let us never conceive it to be a work of speculation or fancy. It is a pure work of grammatical analysis. It is an un-mixed question of language. The commentator who opens this book with the one hand, and carries *his system* in the other, has nothing to do with it. We admit of no other instrument than the vocabulary and the lexicon. The man whom we look to is the Scripture critic, who can appeal to his authorities for the import and significance of phrases, and, whatever be the strict result of his patient and profound philology, we submit to it. We call upon every enlightened disciple of lord Bacon to approve the steps of this process, and to acknowledge that the same habits of philosophising to which science is indebted for all her elevation in these latter days, will lead us to cast down all our lofty imaginations, and bring into captivity every thought to the obedience of Christ.

SCRIV'ENER, *n. s.* Fr. *escrivain*; Lat. *scrivano*. One who draws contracts among brokers.

We'll pass the business privately and well :
Send for your daughter by your servant here,
My boy shall fetch the scrivener.

Shakspeare. Taming of the Shrew.

Yet certain though it be, it hath flaws ; for that
the *scriveners* and brokers do value unsound men to
serve their own turn.

Bacon's Essays.

How happy in his low degree,
Who leads a quiet country life,
And from the griping scrivener free !

Dryden's Horace.

I am reduced to beg and borrow from *scriveners*
and *usurers*, that suck the heart and blood.

Arbuthnot's History of John Bull.

A **SCRIVENER**, if entrusted with a bond, may receive the interest : and, if he fails, the obligee shall bear the loss : and so it is if he receive the principal and deliver up the bond ; for, being entrusted with the security itself, it must be presumed that he is trusted with power to receive interest or principal ; and the giving up the bond on payment of the money shall be a discharge thereof. But, if a scrivener shall be entrusted with a mortgage-deed, he hath only authority to receive the interest, not the principal, and the giving up the deed in this case is not sufficient to restore the estate, but there must be a reconveyance, &c. It is held, where a scrivener puts out his client's money on a bad security, which upon enquiry might have been easily found so, yet he cannot in equity be charged to answer for the money ; for it is here said, no one would venture to put out money of another upon a security, if he were obliged to warrant and make it good in case a loss should happen, without any fraud in him.

SCRIVERIUS (Peter), a learned Dutch author, born at Haerlem, in 1590. He wrote 1. *Batavia Illustrata*; 2. *Notes upon Aquilius's Chronicum Geldricum*; 3. Some other works upon the Antiquities of the United Provinces. He also corrected a copy of Vegetius ; and died in 1653, aged sixty-three.

SCROFANELLO, in ichthyology, a name which some have given to a small fish of the Mediterranean more usually known by the name of *scorpana*.

SCROFULA, *n. s.* } Lat. *scrofa*, a sow, as
SCROFULOUS, *adj.* } Gr. *χοιρας*. A deprava-
tion of the humors of the body, which breaks
out in sores ; commonly called the king's evil :
the adjective corresponds.

Scrofulous persons can never be duly nourished ;
for such as have tumours in the parotides often have
them in the pancreas and mesentery.

Arbuthnot on Aliments.

English consumptions generally proceed from a
scrofulous disposition.

Arbuthnot.

If matter in the milk dispose to coagulation, it
produces a *scrofula*.

Wiseman of Tumours.

What would become of the race of men in the
next age, if we had nothing to trust to, beside the
scrofulous consumptive production furnished by our
men of wit and pleasure ?

Swift.

SCROFULA. See **MEDICINE**.

SCROLL, *n. s.* By Minshew supposed to be
corrupted from roll ; by Skinner from an *escroulle*
given by the heralds ; whence parchment,

wrapped up in a similar form, has the same
name. A writing wrapped up.

His chamber all was hanged about with rolls,
And old records from ancient times deriv'd ;
Some made in books, some in long parchment scrolls,
That were all worm-eaten, and full of canker-holes.

Spenser.

A Numidian priest, bellowing out certain super-
stitious charms, cast divers scrolls of paper on each
side the way, wherein he cursed and banned the
Christians.

Knolles.

We'll add a royal number to the dead,
Gracing the scroll that tells of this war's loss,
With slaughter coupled to the name of kings.

Shakspeare.

Here is the scroll of every man's name, which is
thought fit through all Athens to play in our inter-
lude.

Id.

He drew forth a scroll of parchment, and delivered
it to our foremost man.

Bacon.

Such follow him as shall be registered ;
Part good, part bad : of bad the longer scroll.

Milton.

With this epistolary scroll,
Receive the partner of my inmost soul.

Prior.

SCROON, a lake of the state of New York,
United States. Twelve miles west of George
Lake, eight miles long, and one broad.

SCROON, a river of the United States, in New
York, the north-east branch of the Hudson. It
runs from Scroon Lake into the Hudson, and has
several falls.

SCROPHULA. See **MEDICINE**.

SCROPHULARIA, figwort, in botany, a
genus of the angiospermia order, and didynamia
class of plants ; natural order fortieth, per-
sonatæ : CAL. quinquefid : cor. almost globose,
and resupinated : CAPS. biloculated. There are
several species, of which the most remarkable
are these :—

1. *S. aquatica*, water figwort or betony. The
root is fibrous ; stem erect, square, about four
feet high. The leaves are opposite, elliptical,
pointed, slightly scalloped, on decurrent foot-
stalks. Flowers purple, in loose naked spikes.
It grows on the sides of rivulets and other wet
places, and has a fetid smell. The leaves are
used in medicine as a corrector of senna.

2. *S. nodosa*, or the common figwort, which
grows in woods and hedges. The root is tu-
brous ; the stalks are four or five feet high, and
branched towards the top ; the leaves are heart
shaped, serrated, and acute. The flowers are of
a dark red color, shaped like a cap or helmet ;
the lower lip greenish : they grow in loose
dichotomous spikes or racemi at the top of the
branches. The leaves have a fetid smell and
bitter taste. An ointment made of the root was
formerly used to cure scrofulous sores, but is
at present out of practice.

3. *S. scorodonia*, or balm-leaved figwort. The
stem is erect, square, about two feet high. The
leaves are opposite, doubly serrated. The
flowers are dusky purple, in composite bunches.
It grows on the banks of rivulets, &c., in Corn-
wall.

4. *S. vernalis*, or yellow figwort. The stalks
are square, hairy, brown, about two feet high.
The leaves are heart-shaped, roundish, hairy, in-
dentated, opposite. The flowers are yellow, 611

single forked foot-stalks from the axæ of the leaves. It grows in hedges in Surry.

SCROYLE, *n. s.* Fr. *escrouelle*. A scrofulous swelling; a mean fellow; a rascal; a scabby wretch.

The *scroyles* of Angiers flout you kings,
And stand securely on their battlements,
As in a theatre. *Shakspeare. King John.*

SCRUB, *v. a. & n. s.* } Belgic *schrobben*;
SCRUBBED, } Swed. *skrubba*. To
SCRUBBY, *adj.* } rub hard with some-
thing coarse: a mean fellow; any thing mean:
the adjective corresponding.

I gave it to a youth,
A kind of boy, a little *scrubbed* boy,
No higher than thyself.

Shakspeare. Merchant of Venice.

Such wrinkles as a skillful hand would draw
For an old grandam ape, when with a grace
She sits at squat, and *scrubs* her leathern face.

Dryden.

She never would lay aside the use of brooms and
scrubbing brushes. *Arbuthnot.*

Now Moll had whirled her mop with dexterous
airs,

Prepar'd to *scrub* the entry and the stairs. *Swift.*

With a dozen large vessels my vault shall be
stor'd;

No little *scrub* joint shall come on my board. *Id.*

The scene a wood, produced no more
Than a few *scrubby* trees before. *Id.*

SCRUB, one of the smaller Virgin Islands of
the West Indies, to the east of the north extre-
mity of Tortola, on which it depends. Long.
62° 57' E., lat. 18° 25' N.

SCRUPLE, *n. s. & v. n.* } French *scru-*
SCRUPULOSITY, } *pule*; Lat. *scrupu-*
SCRUPULOUS, *adj.* } *lus*. Doubt; diffi-
SCRUPULOUSLY, *adv.* } culty of determina-
SCRUPULOUSNESS, *n. s.* } tion; perplexity:
the third part of a dram; any small quantity:
scrupulosity also means doubt, state of, or dispo-
sition to doubt; minute exactitude: the other
derivatives follow this sense.

The one sort they warn'd to take heed, that *scru-*
pulosity did not make them rigorous in giving unad-
vised sentence against their brethren which were
free; the other, that they did not become scandalous
by abusing their liberty and freedom, to the offence
of their weak brethren, which were *scrupulous*.

Hooker.

Macduff, this noble passion,

Child of integrity, hath from my soul
Wiped the black *scruples*, reconciled my thoughts
To your good truth. *Shakspeare. Macbeth.*

Equality of two domestic powers

Breeds *scrupulous* faction. *Id. Antony and Cleopatra.*

Nothing did more fill foreign nations with admira-
tion of his succession, than the consent of all es-
tates of England for the receiving of the king with-
out the least *scruple*, pause, or question. *Bacon.*

Milk, one ounce, oil of vitriol a *scruple*, doth coa-
gulate the milk. *Id.*

As the cause of a war ought to be just, so the jus-
tice of that cause ought to be evident; not obscure
not *scrupulous*. *Id.*

The first sacrifice is looked on with horror: but,
when they have made the breach, their *scrupulosity*
soon retires. *Decay of Piety.*

For the matter of your confession, let it be severe
and serious; but yet so as it may be without any in-
ordinate anxiety, and unnecessary *scruples*, which
only entangle the soul. *Taylor.*

He *scrupled* not to eat

Against his better knowledge; not deceived,
But fondly overcome with female charms.

Milton's Paradise Lost.

The *scruples* which many public ministers would
make of the worthiness of parents to have their chil-
dren baptized, forced such questioned parents, who
did not believe the necessity of having their children
baptized by such *scruplers*, to carry their children
unto other ministers. *Graunt's Bills of Mortality.*

Men make no *scruple* to conclude that those propo-
sitions, of whose knowledge they can find in them-
selves no original, were certainly the impress of God
and nature upon their minds, and not taught them
by any one else. *Locke.*

Some birds, inhabitants of the waters, whose
blood is cold as fishes, and their flesh is so like in
taste, that the *scrupulous* are allowed them on fish
days. *Id.*

So careful, even to *scrupulosity*, were they to keep
their sabbath, that they must not only have a time to
prepare them for that, but a further time also to pre-
pare them for their very preparations. *South.*

Henry V. manifestly derived his courage from his
piety, and was *scrupulously* careful not to ascribe the
success of it to himself. *Addison's Freeholder.*

I have been the more *scrupulous* and wary, in re-
gard the inferences from these observations are of
importance. *Woodward.*

Dubius is such a *scrupulous* good man,
Yes—you may catch him tripping, if you can,
He would not, with a peremptory tone,
Assert the nose upon his face his own. *Couper.*

SCRUPLE, among goldsmiths, twenty-four:
grains.

SCRUPLE, in Chaldean chronology, is ^{also} part
of an hour, called by the Hebrews helakin.
These scruples are much used by Arabs and
other eastern nations, in computation of time.

SCRUPULUM, or SCRUPULUS, Latin, a scruple;
the least of the weights used by the an-
cients, which, among the Romans, was the
twenty-fourth part of an ounce, or the third part
of a dram.

SCRUTABLE, *adj.* } Lat. *scrutor*. Disco-
SCRUTATOR, *n. s.* } verable by enquiry; an
enquirer or searcher.

Shall we think God so *scrutable*, or ourselves so
penetrating, that none of his secrets can escape us?

Decay of Piety.

In process of time, from being a simple *scrutator*,
an archdeacon became to have jurisdiction more
amply. *Ayliffe.*

SCRUTINY, *n. s.* } Lat. *scrutinium*. En-
SCRUTINISE, *v. a.* } quiry; search; examina-
SCRUTINIOUS, *adj.* } tion with nicety: to
search; examine: captious; careful.

In the *scrutinies* for righteousness and judgment,
when it is inquired whether such a person be a good
man or no, the meaning is not, what does he be-
lieve or hope, but what he loves.

Taylor's Rule of Holy Living.

Age is froward, uneasy, *scrutinious*,
Hard to be pleased, and parsimonious. *Denham.*

Their difference to measure, and to reach,

Reason well rectified must nature teach

And these high *scrutinies* are subjects fit

For man's all-searching and enquiring wit. *Id.*

I thought thee worth my nearer view

And narrower *scrutiny*, that I might learn

In what degree or meaning thou art called

The Son of God. *Milton's Paradise Regained*

They that have designed exactness and deep scrutiny, have taken some one part of nature. *Hale.*

We are admonished of want of charity towards others, and want of a christian scrutiny and examination into ourselves. *L'Estrange.*

These, coming not within the scrutiny of human senses, cannot be examined by them, or attested by any body. *Locke.*

The compromissarii should chuse according to the votes of such whose votes they were obliged to scrutinize. *Ayliffe.*

When any argument of great importance is managed with that warmth which a serious conviction of it generally inspires, somewhat may easily escape, even from a wary pen, which will not bear the test of a severe scrutiny. *Atterbury.*

SCRUTINY (scrutinium), in the early ages of the church an examination or probation practised in the last week of Lent, on the catechumens, who were to receive baptism on the Easter-day. The scrutiny was performed with a great many ceremonies. Exorcisms and prayers were made over the heads of the catechumens; and, on Palm Sunday, the Lord's Prayer and Creed were given them, which they were afterwards made to rehearse. This custom was more in use in the church of Rome than any where else: though it appears by some missals, to have been likewise used, though much later, in the Gallican church. It is supposed to have ceased about A. D. 860.

SCRUTINY is also used, in the canon law, for a ticket, or little paper billet, wherein at elections the electors write their votes privately, so as it may be known for whom they vote. Among us the term scrutiny is chiefly used for a strict perusal and examination of the several votes hastily taken at an election; in order to find out any irregularities committed therein, by unqualified voters, &c.

SCRUTOIRE', *n. s.* Fr. *scritoire*, or *escritoire*. A case of drawers for writings.

I locked up these papers in my *scritoire*, and my *scritoire* came to be unlocked. *Prior.*

SCRUZE, *v. a.* Perhaps from screw. This word, says Johnson, though now disused by writers, is still preserved, in its corruption, to scrouge, in the London jargon. To squeeze; compress.

Though up he caught him 'twixt his puissant hands,

And having *scrused* out of his carrion corse
The loathful life, now loosed from sinful bands,
Upon his shoulders carried him. *Faerie Queene.*

SCUD, *v. n.* Ital. *scuttire*; Swed. *skutta*; Isl. *skictur*, swift; Goth. *skiota*. To fly; run away with precipitation.

The frighted satyrs, that in woods delight,
Now into plains with pricked-up ears take flight;
And *scudding* thence, while they their horn-feet ply,
About their sires the little sylvans cry. *Dryden.*

The vote was no sooner passed, but away they *scudded* to the next lake. *L'Estrange.*

Away the frighted spectre *scuds*,
And leaves my lady in the suds. *Swift.*

SCUDDING, the movement by which a ship is carried precipitately before a tempest. As a ship flies with amazing rapidity through the water whenever this expedient is put in practice, it is never attempted in a contrary wind, unless when her condition renders her incapable of sustaining

the mutual efforts of the wind and waves any longer on her side. A ship either *scuds* with a sail extended on her fore-mast, or, if the storm is excessive, without any sail; which, in the sea-phrase, is called *scudding* under bare poles. In sloops and schooners, and other small vessels, the sail employed for this purpose is called the square sail. In large ships it is either the foresail at large reefed, or with its goose-wings extended, according to the degree of the tempest; or it is the fore-top-sail, close reefed, and lowered on the cap; which last is particularly used when the sea runs so high as to becalm the foresail occasionally, a circumstance which exposes the ship to the danger of *broaching-to*. The principal hazards incident to *scudding* are generally, a *pooping* sea; the difficulty of steering, which exposes the vessel perpetually to the risk of *broaching-to*; and the want of sufficient sea-room. A sea striking the snip violently on the stern may dash it inwards, by which she must inevitably founder. In *broaching-to* (that is, inclining suddenly to windward) she is threatened with being immediately overturned; and, for want of sea-room, she is endangered by shipwreck on a lee-shore, a circumstance, alas, of too frequent occurrence to require explanation.

SCUDERY (George), de, an eminent French writer, descended of an ancient and noble family in Provence, and born at Havre de Grace in 1603. He was educated at Apt, and afterwards settled at Paris. In 1638 he published *Observations* on the Cid of Corneil. He afterwards wrote several dramatic pieces, poems of various kinds, and some tracts in prose. He was appointed governor of the castle of Notre Dame de la Garde, near Marseilles; and, in 1650, was admitted a member of the Royal Academy. He died at Paris 1667.

SCUDERY (Magdalene), de, sister of George, was born at Havre de Grace, in 1607, and became eminent for her writings. She went early to Paris, and soon became a very voluminous writer; and published many romances which sold rapidly. Her abilities were reckoned superior to her brother's; the celebrated Academy of the Ricovrati at Padua admitted her an honorary member, and she succeeded the learned Helena Cornaro. She also received the first prize for eloquence given by the academy. She received many valuable presents from several great personages. She died in 1701, aged ninety-four, and two churches contended fiercely for the honor of receiving her remains; and it required no less authority than that of cardinal de Noailles to decide the dispute.

SCUFFLE, *n. s. & v. n.* Derived by Skinner from *shuffle*. But there is a Swed. *skuffa*, and Goth. *skiufo*. A confused quarrel; tumultuous broil; to fight in confusion.

His captain's heart,
In the *scuffle* of great fights, hath burst
The buckles on his breast.

Shakespeare. Antony and Cleopatra.

Avowed atheists, placing themselves in the seat of the scorner, take much pleasing divertisement, by deriding our eager *scuffles* about that which they think nothing.

Decay of Piety.
2 X 2

I must confess I've seen in former days
The best knights in the world, and *scuffled* in some
frays. *Drayton.*

A gallant man would rather fight to great disadvantages in the field, in an orderly way, than *scuffle* with an undisciplined rabble. *King Charles.*

The dog leaps upon the serpent, and tears it to pieces; but in the *scuffle* the cradle happened to be overturned. *L'Estrange.*

Popish missionaries mix themselves in these dark *scuffles*, and animate the mob to such outrages and insults. *Addison.*

SCULK, *v. n.* Dan. *sculcke*; Swed. *skulka*; Goth. *skiula*. To lurk in hiding-places; lie close.

Fearing to be seen, within a bed
Of coleworts he concealed his wily head;
There *sculked* till afternoon, and watched his time. *Dryden.*

It has struck on a sudden into such a reputation, at it scorns any longer to *sculk*, but owns itself
ubly. *Government of the Tongue.*

My prophets and my sophists finished here
Their civil efforts of the verbal war:
Not so my rabbins and logicians yield;
Retiring still they combat; from the field
Of open arms unwilling they depart,
And *sculk* behind the subterfuge of art.' *Prior.*

No news of Phyl! the bridegroom came,
And thought his bride had *sculked* for shame;
Because her father used to say,
The girl had such a bashful way. *Swift.*

SCULL, *n. s.* Sax. *scpul*. Derived by Skinner from shell, and in some provinces called shull. Mr. Lye observes more satisfactorily that skola is in Islandic the skull of an animal.—Johnson. It is clearly derived from Goth. *skol*,

skal. The bone which incases and defends the brain.

Fractures of the *scull* are at all times very dangerous, as the brain becomes affected from the pressure. *Sharp.*

SCULL, *n. s.* Sax. *scæole*, an assembly. In Milton's style, a shoal or vast multitude of fish. *Each bay*

With fry innumerable swarm, and shoals
Of fish, that with their fins and shining scales
Glide under the green wave, in *sculls* that oft
Bank the mid sea. *Milton.*

Like catiff vile, that for misdeed
Rides with his face to rump of steed;
Or rowing *scull*, he's fain to love,
Look one way and another move. *Hudibras.*

Her soul already was consigned to fate,
And shivering in the leaky *sculler* sate. *Dryden.*
They hire the *sculler*, and, when once abroad,
Grow sick, and damn the climate like a lord. *Pope.*

SCULL'CAP, *n. s.* Scull and cap. A head-piece; nightcap.

SCULL'ERY, *n. s.* Fr. *escueille*, a dish; Isl. *skiolo*, a vessel. The place where common utensils, as kettles or dishes, are cleaned and kept.

I must, like a whore, unpack my heart with words
And fall a-cursing like a very drab,
A *scullion*, fye upon 't! foh! about my brain. *Shakspeare. Hamlet.*

Pyreicus was famous for counterfeiting base things, as pitchers, a *scullery*, and setting rogues together by the ears. *Peacham.*

If the gentleman hath lain there, get the cook, the stable-men, and the *scullion*, to stand in his way. *Swift.*

SCULPTURE.

SCULP, *v. a.*
SCULPT'ILE, *adj.*
SCULPT'OR, *n. s.*

Fr. *sculper*; Lat. *sculpo*. To carve;
engrave: sculptile
SCULPTURE, *n. s.* & *v. a.* is made by carving.

Words not in use. A sculptor is a carver of wood or stone into images, busts, &c.: sculpture, his art, see below: the verb corresponds in meaning.

O that the tenor of my just complaint
Were *sculpt* with steel on rocks of adamant!

Sandys.

In a silver medal is upon one side Moses horned, and on the reverse the commandment against *sculptile* images. *Browne.*

Nor did there want
Cornice or freeze with bossy *sculpture* graven. *Milton.*

There too, in living *sculpture*, might be seen
The mad affection of the Cretan queen. *Dryden.*

Thy shape's in every part
So clean, as might instruct the *sculptor*'s art. *Id.*

The Latin poets give the epithets of trifidum and trisulcum to the thunderbolt, from the *sculptors* and painters that lived before them, that had given it three forks. *Addison.*

Then *sculpture* and her sister arts revive,
Stones leaped to form and rocks began to live. *Pope.*

Gold, silver, ivory vases *sculptured* high,
There are who have not. *Id.*

HISTORY OF SCULPTURE.

SCULPTURE is an art of remote antiquity, being practised, as there is reason to believe, before the general deluge. We are induced to assign to it this early origin, by considering the expedients by which, in the first stages of society, men have every where supplied the place of alphabetical characters. These, it is universally known, have been picture writing, such as that of the Mexicans, which, in the progress of refinement and knowledge, was gradually improved into the hieroglyphics of the Egyptians and other ancient nations. See HIEROGLYPHICS.

That mankind should have lived nearly 1700 years, from the creation of the world to the flood of Noah, without falling upon any method to make their conceptions permanent, or to communicate them to a distance, is extremely improbable: especially when we consider that such methods of writing have been found, in modern times, among people much less enlightened than those must have been, who were capable of building such a vessel as the ark. But, if the antediluvians were acquainted with any kind of writing, there can be little doubt of its having been hieroglyphical. Bryant has proved that the Chaldeans were possessed of that art before the Egyptians; and Berosus (Apud. Syncellum, p

87), informs us, that a delineation of all the monstrous forms which inhabited the chaos, when this earth was in that state, was to be seen in the temple of Belus in Babylon. This delineation, as he describes it, must have been a history in hieroglyphical characters; for it consisted of human figures with wings, with two heads, and some with the horns and legs of goats. This is exactly similar to the hieroglyphical writings of the Egyptians; and it was preserved, our author says, both in drawings and engravings in the temple of the god of Babylon. As Chaldea was the first peopled region of the earth after the flood, and as it appears from Pliny, as well as from Berosus, that the art of engraving upon bricks baked in the sun was there carried to a considerable degree of perfection at a very early period, the probability certainly is that the Chaldeans derived the art of hieroglyphical writing, and consequently the rudiments of the art of sculpture, from their antediluvian ancestors.

It is generally thought that sculpture had its origin from idolatry, as it was found necessary to place before the people the images of their gods to enliven the fervor of their devotion; but this is probably a mistake. The worship of the heavenly bodies, as the only gods of the heathen nations, prevailed so long before the deification of dead men was thought of (see POLYTHEISM) that we cannot suppose mankind to have been, during all that time, ignorant of the art of hieroglyphical writing. But the deification of departed heroes undoubtedly gave rise to the almost universal practice of representing the gods by images of a human form; and therefore we must conclude that the elements of sculpture were known before that art was employed to enliven the devotion of idolatrous worshippers. The pyramids and obelisks of Egypt, which were probably temples, or other altars, dedicated to the sun (see PYRAMID), were covered from top to bottom with hieroglyphical emblems of men, beasts, birds, fishes, and reptiles, at a period prior to that in which there is any unexceptionable evidence that mere statue worship prevailed even in that nursery of idolatry. Thus it appears evident that picture-writing was the first employment of the sculptor; and that idolatrous worship contributed to carry his art to that perfection which it attained in some of the nations of antiquity. Even in the dark ages of Europe, when the other fine arts were almost extinguished, the mummery of the church of Rome, and the veneration which she taught for saints and martyrs, preserved among the Italians some vestiges of the sister arts of sculpture and printing; and therefore it is reasonable to believe that a similar veneration for heroes and demigods would, among the ancient nations have a similar effect. The presumption therefore is, that the Chaldeans were the first who invented the art of hewing blocks of wood and stone into the figures of men and other animals; for the Chaldeans were unquestionably the first idolaters, and their early progress in sculpture is confirmed by the united testimonies of Berosus, Alexander Polyhistor, Apollodorus, and Pliny; not to mention the eastern tradition that Terah the father of Abraham was a statuary.

Against this conclusion Bromley, in his History of the Fine Arts, has urged some plausible objections. In stating these he professes not to be original, or derive his information from the fountain head of antiquity. He adopts, he says, the theory of a French writer, who maintains that in the year of the world 1949, about 300 years after the Deluge, the Scythians under Brouma, a descendant of Magog the son of Japhet, extended their conquests over the greater part of Asia. According to this System, Brouma was not only the civiliser of India, and the author of the braminal doctrines, but also diffused the principles of the Scythian mythology over Egypt, Phœnicia, Greece, and the continent of Asia.

Of these principles Mr. Bromley has given us no distinct enumeration: the account which he gives of them is not to be found in one place, but to be collected from a variety of distant passages. In attempting, therefore, to present the substance of his scattered hints in one view, we will not be confident that we have omitted none of them. The ox, says he, was the Scythian emblem of the generator of animal life, and hence it became the principal divinity of the Arabians. The serpent was the symbol of the source of intelligent nature. These were the common points of union in all the first religions of the earth. From Egypt the Israelites carried with them a religious veneration for the ox and the serpent. Their veneration for the ox appeared soon after they marched into the wilderness, when, in the absence of Moses, they called upon Aaron to make them gods which should go before them. The idea of having an idol to go before them, says our author, was completely Scythian; for so the Scythians acted in all their progress through Asia, with this difference, that their idol was a living animal. The Israelites having gained their favorite god, which was an ox (not a calf, as it is rendered in the book of Exodus), next proceeded to hold a festival, which was to be accompanied with dancing; a species of gaiety common in the festivals which were held in adoration of the emblematic Urotal, or ox, in that very part of Arabia near Mount Sinai where this event took place. It is mentioned too, as a curious and important fact, that the ox, which was revered in Arabia was called Adonai. Accordingly Aaron, announcing the feast of the ox or golden calf, speaks thus, to morrow is a feast to Adonai, which is in our translation rendered to the Lord. In the time of Jeroboam we read of the golden calves set up as objects of worship at Bethel and Dan. Nor was the reverence paid to the ox confined to Scythia, to Egypt, and to Asia; it extended much farther. The ancient Cimbri, as the Scythians did, carried an ox of bronze before them on all their expeditions. Mr. Bromley also informs us that as great respect was paid to the living ox among the Greeks as was offered to its symbol among other nations.

The emblem of the serpent, continues Mr. Bromley was marked yet more decidedly by the express direction of the Almighty. That animal had ever been considered as emblematic of the supreme generating power of intelligent life. nor was that idea, says he, discouraged so far as

it went to be a sign or symbol of life, when God said to Moses, 'Make thee a brazen serpent, and set it upon a pole, and it shall come to pass that every one who is bitten, when he looketh upon it, shall live.' The serpent made a distinguished figure in Grecian sculpture. The fable of Echidna, the mother of the Scythians, gave her figure terminating as a serpent, to all the founders of states in Greece; from which their earliest sculptors represented in that form the Titan princes, Cecrops, Draco, and Erichthonius. Besides the spear of the image of Minerva, which Phidias made for the citadel of Athens, he placed a serpent, which was supposed to guard that goddess. The serpent was combined with many other figures. It sometimes was coiled round an egg as an emblem of the creation; sometimes round a trident to show its power over the sea; sometimes it encircled a flambeau, to represent life and death.

In Egypt, as well as in Scythia and India, the divinity was represented on the leaves of the tamar lotus. Their sphinxes, and all their combined figures of animal creation, took their origin from the mother of the Scythians, who brought forth an offspring that was half a woman and half a serpent. Their pyramids and obelisks arose from the idea of flame; the first emblems of the supreme principle, introduced by the Scythians, and which even the influence of Zoroaster and the Magi could not remove.

The Bacchus of the Greeks is derived from the Brouma of the Indians; both are represented as seated on a swan swimming over the waves, to indicate that each was the god of humid nature, not the god of wine, but the god of waters. The mitre of Bacchus was shaped like half an egg; an emblem taken from this circumstance, that at the creation the egg, from which all things sprung, was divided in the middle. Pan also was revered among the Scythians; and from that people were derived all the emblems by which the Greeks represented this divinity.

It would be tedious to follow our author through the whole of this subject; and, were we to submit to that labor, we should still view his system with suspicion. It is drawn, he says, from the work of M. D'Ancarville, entitled *Recherches sur l'Origine, l'Esprit, et les Progrès, des Arts de la Grece*.

To form conclusions concerning the origin of nations, the rise and progress of the arts and sciences, without the aid of historical evidence, by analogies which are sometimes accidental, and often fanciful, is a mode of reasoning which cannot be admitted. There may, indeed, be resemblances in the religion, language, manners, and customs of different nations, so striking and so numerous, that to doubt of their being descended from the same stock would savor of scepticism. But historical theories must not be adopted rashly. We must be certain that the evidence is credible and satisfactory before we proceed to deduce any conclusions. We must first know whether the Scythian history itself be authentic, before we make any comparison with the history of other nations. But what is called the Scythian history, every man of learning knows to be a collection of fables. Herodotus and Justin

are the two ancient writers from whom we have the fullest accounts of that warlike nation; but these two historians contradict each other, and both write what cannot be believed of the same people at the same period of their progress. Justin tells us that there was a long and violent contest between the Scythians and Egyptians about the antiquity of their respective nations; and after stating the arguments on each side of the question, which, as he gives them (lib. ii. c. 1.), are nothing to the purpose, he decides in favor of the claim of the Scythians. Herodotus was too partial to the Egyptians not to give them the palm of antiquity; and he was in the right, for Justin describes this most ancient of nations, even in the time of Darius Hystaspis, as ignorant of all the arts of civil life. 'They occupied their land in common,' says he, 'and cultivated none of it. They had no houses nor settled habitations, but wandered with their cattle from desert to desert. In these rambles they carried their wives and children in tumbrels covered with the skins of beasts, which served as houses to protect them from the storms of winter. They were without laws, but governed by the dictates of natural equity. They coveted not gold or silver like the rest of mankind, and lived upon milk and honey. Though they were exposed to extreme cold, and had abundance of flocks, they knew not how to make garments of wool, but clothed themselves in the skins of wild beasts.' This is the most favorable account which an ancient writer gives of the Scythians. By Strabo and Herodotus they are represented as the most savage of mortals, delighting in war and bloodshed, cutting the throats of all strangers who came among them, eating their flesh, and making cups and pots of their skulls. Is it conceivable that such savages could be sculptors; or that, even supposing their manners to have been such as Justin represents them, a people so simple and ignorant could have imposed their mythology upon the Chaldeans, Phœnicians, and Egyptians, whom we know by the most incontrovertible evidence to have been great and polished nations so early as in the days of Abraham? No! We could as soon admit other novelties, with which the French of the present age pretend to enlighten the world, as this origin assigned by Mr. Bromley to the art of sculpture.

The inference of our author from the name of the sacred ox in Arabia, and from the dancing and gaiety in the religious festivals of the Arabians, appears to be very hastily drawn. At the early period of the departure of the Israelites from Egypt, the language of the Hebrews, Egyptians, and Arabians, differed not more from each other than the different dialects of the Greek tongue which are found in the poems of Homer; and, for many years after the formation of the golden calf, the Hebrews were strangers to every species of idolatry but that which they had brought with them from their house of bondage. See REMPHAN. Taking it for granted, therefore, that the Scythians did not impose their mythology upon the eastern nations, and that the art of sculpture, as well as hieroglyphic writing and idolatrous worship, prevailed first among the Chaldeans, we shall trace the progress of this

art through some other nations of antiquity till we bring it to Greece, where it was carried to the highest perfection to which it has yet attained.

The first intimation that we have of the art of sculpture is in the book of Genesis, where we are informed that when Jacob, by the divine command, was returning to Canaan, his wife Rachel carried along with her the teraphim or idols of her father. These we are assured were small, since Rachel found it so easy to conceal them from her father, notwithstanding his anxious search. We are ignorant, however, how these images were made, or of what materials they were composed. The first person mentioned as an artist of eminence is Bezaleel, who formed the cherubim which covered the mercy-seat.

SECT. I.—OF THE ANCIENT EGYPTIAN SCULPTURE.

The Egyptians early cultivated the art of sculpture; but there were two circumstances that obstructed its progress. 1. The persons of the Egyptians were not possessed of the graces of form, elegance, or symmetry; and of consequence they had no perfect standard to model their taste. They resembled the Chinese in the cast of their face, in their great bellies, and in the clumsy rounding of their contours. 2. They were restrained by their laws to the principles and practices of their ancestors, and were not permitted to introduce any innovations. Their statues were always formed in the same stiff attitude, with the arms hanging perpendicularly down their sides. What perfection were they capable of who knew no other attitude than that of chairmen? So far were they from attempting any improvements, that in the time of Adrian the art continued in the same rude state as at first; and, when their slavish adoration of that emperor induced them to place the statue of his favorite Antinous among the objects of their worship, the same inanimate stiffness in the attitude of the body and position of the arms was observed. This Egyptian statue, therefore, was different from the celebrated statue of Antinous, of which so many moulds have been taken that imitations of it are now to be met with almost in every cabinet in Europe.

Notwithstanding the attachment of the Egyptians to ancient usages, Winkelman thinks he has discovered two different styles of sculpture which prevailed at different periods. The first of these ends with the conquest of Egypt by Cambyzes. The second begins at that time, and extends beyond the reign of Alexander the Great. In the first style, the lines which form the contour are straight, and projecting a little: the position is stiff and unnatural: in sitting figures the legs are parallel, the feet squeezed together, and the arms fixed to the sides; but in the figures of women the left arm is folded across the breast; the bones and muscles are faintly discernible; the eyes are flat and looking obliquely, and the eyebrows sunk; features which destroy entirely the beauty of the head; the cheek-bones are high, the chin small and piked; the ears are generally placed higher than in nature, and the feet are too large and flat. In short, if we are to look for

any model in the statues of Egypt, it is not for the model of beauty, but of deformity. The statues of men are naked, only they have a short apron, and a few folds of drapery surrounding their waist: the vestments of women are only distinguishable by the border, which rises a little above the surface of the statue. In this age it is evident the Egyptians knew little of drapery.

Of the second style of sculpture practised among the Egyptians, Winkelman thinks he has found specimens in the two figures of basaltes in the capitol, and in another figure at Villa Albani, the head of which has been renewed. The two first of these, he remarks, bear visible traces of the former style, which appear especially in the form of the mouth and shortness of the chin. The hands possess more elegance; and the feet are placed at a greater distance from one another. In the first and third figures the arms hang down close to the sides. In the second they hang more freely. Winkelman suspects that these three statues have been made after the conquest of Egypt by the Greeks. They are clothed with a tunic, a robe, and a mantle. Their tunic, which is puckered into many folds, descends from the neck to the ground. The robe in the first and third statues seems close to the body, and is only perceptible by some little folds. It is tied under the breast, and covered by the mantle, the two buttons of which are placed under the epaulet.

The Antinous of the capitol is composed of two pieces, which are joined under the haunches. But, as all the Egyptian statues which now remain have been hewn out of one block, we must believe that Diodorus, in saying the stone was divided, and each half finished by a separate artisan, spoke only of a colossus. He tells us that the Egyptians divided the human body into twenty-four parts and three-quarters: but it is to be regretted that he has not given a more minute detail of that division. The Egyptian statues were formed by the chisel, and polished with great care. Even those on the summit of an obelisk, which could only be viewed at a distance, were finished with as much labor as if they had admitted a close inspection. As they are generally executed in granite or basaltes, stones of a very hard texture, it is impossible not to admire the indefatigable patience of the artists.

The eye was often of different materials from the rest of the statue; sometimes it was composed of a precious stone or metal. We are assured that the valuable diamond of the empress of Russia, the largest and most beautiful hitherto known, formed one of the eyes of the famous statue of Scheringham in the temple of Brama. Those Egyptian statues which still remain are composed of wood or baked earth; and the statues of earth are covered with green enamel.

SECT. II.—OF THE PHŒNICIAN SCULPTURE.

The Phœnicians possessed both a character and situation highly favorable to the cultivation of statuary. They had beautiful models in their own persons, and their industrious character qualified them to attain perfection in every art

for which they had a taste. Their situation raised a spirit of commerce, and commerce induced them to cultivate the arts. The temples shone with statues and columns of gold, and a profusion of emeralds was every where scattered. All the great works of the Phœnicians have been unfortunately destroyed; but many of the Carthaginian medals are still preserved, ten of which are deposited in the cabinet of the king of Etruria. But, though the Carthaginians were a colony of Phœnicians, we cannot from their works judge of the merit of their ancestors.

The Persians made no distinguished figure in the arts of design. They were indeed sensible to the charms of beauty, but they did not study to imitate them. Their dress, which consisted of long flowing robes, concealing the whole person, prevented them from attending to the beauties of form. Their religion, too, which taught them to worship the divinity in the emblem of fire, and that it was impious to represent him under a human form, seemed almost to prohibit the exercise of this art, by taking away those motives which alone could give it dignity and value; and, as it was not customary among them to raise statues to great men, it was impossible that statuary could flourish in Persia.

SECT. III.—OF THE ANCIENT ETRURIAN SCULPTURE.

The Etrurians, or ancient Tuscans, in the opinion of Winkelman, carried this art to some degree of perfection at an earlier period than the Greeks. It is said to have been introduced before the siege of Troy by Dædalus, who, to escape the resentment of Minos king of Crete, took refuge in Sicily, whence he passed into Italy, where he left many monuments of his art. Pausanias and Diodorus Siculus inform us that some works ascribed to him were to be seen when they wrote, and that these possessed that character of majesty which distinguished the labors of Etruria.

A character strongly marked forms the chief distinction in those productions of Etruria which have descended to us. Their style was indeed harsh and overcharged; a fault also committed by Michael Angelo the celebrated painter of modern Etruria; for it is not to be supposed that a people of such rude manners as the ancient Etrurians could communicate to their works that vividness and beauty which the elegance of Grecian manners inspired. On the other hand, there are many of the Tuscan statues which bear so close a resemblance to those of Greece, that antiquarians have thought it probable that they were conveyed from that country or Magna Græcia into Etruria about the time of the Roman conquest, when Italy was adorned with the spoils of Greece.

Among the monuments of Etrurian art two different styles have been observed. In the first the lines are straight, the attitude stiff, and no idea of beauty appears in the formation of the head. The contour is not well rounded, and the figure is too slender. The head is oval, the chin piked, the eyes flat, and looking asquint. These are the defects of an art in a state of infancy, which an accomplished master could

never fall into, and are equally conspicuous in Gothic statues as in the productions of the ancient natives of Florence. They resemble the style of the Egyptians so much that one is almost induced to suppose there had once been a communication between these two nations; but others think that this style was introduced by Dædalus.

Winkelman supposes that the second epoch of this art commenced in Etruria, about the time at which it had reached its greatest perfection in Greece, in the age of Phidias; but this conjecture is not supported by any proofs. To describe the second style of sculpture among the Etrurians is almost the same as to describe the style of Michael Angelo and his numerous imitators. The joints are strongly marked, the muscles raised, the bones distinguishable; but the whole mien harsh. In designing the bone of the leg, and the separation of the muscles of the calf, there is an elevation and strength above life. The statues of the gods are designed with more delicacy. In forming them, the artists were anxious to show that they could exercise their power without that violent distension of the muscles which is necessary in the exertions of beings merely human; but in general their attitudes are unnatural, and the actions strained. If a statue, for instance, hold any thing with its fore-fingers, the rest are stretched out in a stiff position.

SECT. IV.—OF THE GRECIAN SCULPTURE.

According to ancient history, the Greeks did not emerge from the savage state till a long time after the Egyptians, Chaldeans, and Indians, had arrived at a considerable degree of civilisation. The original rude inhabitants of Greece were civilised by colonies which arrived among them at different times from Egypt and Phœnicia. These brought along with them the religion, the letters, and the arts of their parent countries; and, if sculpture had its origin from the worship of idols, there is reason to believe that it was one of the arts which were thus imported; for that the gods of Greece were of Egyptian and Phœnician extraction is a fact incontrovertible: see MYSTERIES, MYTHOLOGY, PHILOSOPHY, and TITAN. The original statues of the gods, however, were very rude. The earliest objects of idolatrous worship have every where been the heavenly bodies; and the symbols consecrated to them were generally pillars of a conical or pyramidal figure. It was not till hero-worship was engrafted on the planetary, that the sculptor thought of giving to the sacred statue any part of the human form (see POLYTHEISM); and it appears to have been about the era of this revolution in idolatry, that the art of sculpture was introduced among the Greeks. The first representations of their gods were round stones placed upon cubes or pillars; and these stones they afterwards formed roughly, so as to give them something of the appearance of a head. Agreeable to this description was a Jupiter which Pausanias saw in Tegeum, in Arcadia. These representations were called Hermes; not that they represented Mercury, but from the word herma, which signified a rough stone. It is the

name which Homer gives to the stones which were used to fix vessels to the shore. Pausanias saw at Pheres thirty deities made of unformed blocks or cubical stones. The Lacedemonians represented Castor and Pollux by two parallel posts; and a transverse beam was added to express their mutual affection. If the Greeks derived from foreign nations the rudiments of the arts, it must redound much to their honor that in a few centuries they carried them to such wonderful perfection as entirely to eclipse the fame of their masters. It is by tracing the progress of sculpture among them that we are to study the history of this art; and we shall see its origin and successive improvements correspond with nature, which always operates slowly and gradually.

The great superiority of the Greeks in the art of sculpture may be ascribed to a variety of causes. The influence of climate over the human body is so striking that it must have fixed the attention of every thinking man who has reflected on the subject. The violent heats of the torrid zone, and the excessive cold of the polar regions, are unfavorable to beauty. It is only in the mild climates of the temperate regions that it appears in its most attractive charms. Perhaps no country in the world enjoys a more serene air, less tainted with mists and vapors, or possesses in a higher degree that mild and genial warmth which can unfold and expand the human body into all the symmetry of muscular strength, and all the delicacies of female beauty in greater perfection, than the happy climate of Greece; and never was there any people that had a greater taste for beauty, or were more anxious to improve it. Of the four wishes of Simonides, the second was to have a handsome figure. The love of beauty was so great among the Lacedemonian women, that they kept in their chambers the statues of Nereus, of Narcissus, of Hyacinthus, and of Castor and Pollux; hoping that by often contemplating them they might have beautiful children.

There were a variety of circumstances in the noble and virtuous freedom of the Grecian manners that rendered these models of beauty peculiarly subservient to the cultivation of the fine arts. There were no tyrannical laws, as among the Egyptians, to check their progress. They had the best opportunities to study them in the public places, where the youth, who needed no other veil than chastity and purity of manners, performed their various exercises quite naked. They had the strongest motives to cultivate sculpture, for a statue was the highest honor which public merit could attain. It was an honor ambitiously sought, and granted only to those who had distinguished themselves in the eyes of their fellow citizens. As the Greeks preferred natural qualities to acquired accomplishments, they decreed the first rewards to those who excelled in agility and strength of body. Statues were often raised to wrestlers. Even the most eminent men of Greece, in their youth, sought renown in gymnastic exercises. Chrysiippus and Cleanthes distinguished themselves in the public games before they were known as philosophers. Plato appeared as a wrestler both at the Isthmian and

Pythian games; and Pythagoras carried off the prize at Elis. See PYTHAGORAS. The passion by which they were inspired was the ambition of having their statues erected in the most sacred place of Greece, to be seen and admired by the whole people. The number of statues erected on different occasions was immense; of course the number of artists must have been great, their emulation ardent, and their progress rapid. As most of their statues were decreed for those who vanquished in the public games, the artists had the opportunity of seeing excellent models; for those who surpassed in running, boxing, and wrestling, must in general have been well formed, yet would exhibit different kinds of beauty.

The high estimation in which sculptors were held was very favorable to their art. Socrates declared the artists the only wise men. An artist could be a legislator, a commander of armies, and might hope to have his statue placed beside those of Miltiades and Themistocles, or of those of the gods themselves. Besides, the honor and success of an artist did not depend on the caprice of pride or of ignorance. The productions of art were estimated and rewarded by the greatest sages in the general assembly of Greece, and the sculptor who had executed his work with ability and taste was confident of obtaining immortality.

It was the opinion of Winkelman, that liberty was highly favorable to this art; but, though liberty is absolutely necessary to the advancement of science, it may be doubted whether the fine arts owe their improvement to it. Sculpture flourished most in Greece, when Pericles exercised the power of a king; and in the reign of Alexander, when Greece was conquered. It attained no perfection in Rome till Augustus had enslaved the Romans. It revived in Italy under the patronage of the family of Medici, and in France under the despotic rule of Louis XIV. It is the love of beauty, luxury, wealth, or the patronage of a powerful individual, that promotes the progress of this art.

It will now be proper to give a particular account of the ideas which the Greeks entertained concerning the standard of beauty in the different parts of the human body. And with respect to the head, the profile which they chiefly admired is peculiar to dignified beauty. It consists in a line almost straight, or marked by such slight and gentle inflections as are scarcely distinguishable from a straight line. In the figures of women and young persons the forehead and nose form a line approaching to a perpendicular.

Ancient writers, as well as artists, assure us that the Greeks reckoned a small forehead a mark of beauty, and a high forehead a deformity. From the same idea, the Circassians wore their hair hanging down over their foreheads almost to their eyebrows. To give an oval form to the countenance, it is necessary that the hair should cover the forehead, and thus make a curve about the temples; otherwise the face, which terminates in an oval form in the inferior part, will be angular in the higher part, and the proportion will be destroyed. This rounding of the forehead may be seen in all handsome persons, in all the heads of ideal beauty in ancient statues, and

especially in those of youth. It has been overlooked, however, by modern statues. Bernini, who modelled a statue of Louis XIV. in his youth, turned back the hair from the forehead.

It is generally agreed that large eyes are beautiful; but their size is of less importance in sculpture than their form, and the manner in which they are enched. In ideal beauty, the eyes are always sunk deeper than they are in nature, and consequently the eyebrows have a greater projection. But in large statues, placed at a certain distance, the eyes, which are of the same color with the rest of the head, would have little effect if they were not sunk. By deepening the cavity of the eye, the statuary increases the light and shade, and thus gives the head more life and expression. The same practice is used in small statues. The eye is a characteristic feature in the heads of the different deities. In the statues of Apollo, Jupiter, and Juno, the eye is large and round. In those of Pallas they are also large; but, by lowering the eyelids, the virgin air and expression of modesty are delicately marked. Venus has small eyes, and the lower eyelid being raised a little, gives them a languishing look and an enchanting sweetness. It is only necessary to see the Venus de Medicis to be convinced that large eyes are not essential to beauty, especially if we compare her small eyes with those which resemble them in nature. The beauty of the eyebrows consists in the fineness of the hair, and in the sharpness of the bone which covers them; and masters of the art considered the joining of the eyebrows as a deformity, though it is sometimes to be met with in ancient statues.

The beauty of the mouth is peculiarly necessary to constitute a fine face. The lower lip must be fuller than the upper, in order to give an elegant rounding to the chin. The teeth seldom appear, except in laughing satyrs. In human figures the lips are generally close, and a little opened in the figures of the gods. The lips of Venus are half open.

In figures of ideal beauty, the Grecian artists never interrupted the rounding of the chin by introducing a dimple; for this they considered not as a mark of beauty, and only to be admitted to distinguish individuals. The dimple indeed appears in some ancient statues, but antiquaries suspect it to be the work of a modern hand. It is suspected, also, that the dimple which is sometimes found on the cheeks of ancient statues is a modern innovation.

No part of the head was executed by the ancients with more care than the ears, though little attention has been given to them by modern artists. This character is so decisive, that if we observe in any statue that the ears are not highly finished, but only roughly marked, we may conclude with certainty that we are examining a modern production. The ancients were very attentive to copy the precise form of the ear in taking likenesses. Thus, where we meet with a head, the ears of which have a very large interior opening, we know it to be the head of Marcus Aurelius.

The manner in which the ancient artists formed the hair also enables us to distinguish

their works from those of the moderns. On hard and coarse stones the hair was short, and appeared as if it had been combed with a wide comb; for that kind of stone was difficult to work, and could not without immense labor be formed into curled and flowing hair. But the figures executed in marble in the most flourishing period of the art have the hair curled and flowing; at least where the head was not intended to be an exact resemblance, for then the artist conformed to his model. In the heads of women, the hair was thrown back, and tied behind in a waving manner, leaving considerable intervals; which gives the agreeable variety of light and shade, and produces the effects of the *claro-obscuro*. The hair of the Amazons is disposed in this manner. Apollo and Bacchus have their hair falling down their shoulders; and young persons, till they arrived at manhood, wore their hair long. The color of the hair which was reckoned most beautiful was fair; and this they gave without distinction to the most beautiful of their gods, Apollo and Bacchus, and likewise to their most illustrious heroes.

Although the ravages of time have preserved but few of the hands or feet of ancient statues, it is evident from what remains how anxious the Grecian artists were to give every perfection to these parts. The hands of young persons were moderately plump, with little cavities or dimples at the joints of the fingers. The fingers tapered very gently from the root to the point, like well proportioned columns, and the joints were scarcely perceptible. The terminating joint was not bent, as it commonly appears in modern statues.

In the figures of young men the joints of the knee are faintly marked. The knee unites the leg to the thigh without making any remarkable projections or cavities. The most beautiful legs, and best turned knees, according to Winkelman, are preserved in the Apollo Sauroctones, in the Villa Borghese; in the Apollo which has a swan at its feet; and in the Bacchus of Villa Medicis. The same able connoisseur remarks, it is rare to meet with beautiful knees in young persons, or in the elegant representations of art. As the ancients did not cover the feet as we do, they gave to them the most beautiful turning, and studied the form of them with the most scrupulous attention.

The breasts of men were large and elevated. The breasts of women did not possess much amplitude. The figures of the deities have always the breasts of a virgin, the beauty of which the ancients made to consist in a gentle elevation. So anxious were the women to resemble this standard, that they used several arts to restrain the growth of their breasts. The breasts of the nymphs and goddesses were never represented swelling, because that is peculiar to those women who suckle. The paps of Venus contract and end in a point, this being considered as an essential characteristic of perfect beauty. Some of the moderns have transgressed these rules, and have fallen into great improprieties.

The lower parts of the body in the statues of men were formed like that of the living body after a profound sleep and a good digestion. The

navel was considerably sunk, especially in female statues.

As beauty never appears in equal perfection in every part of the same individual, perfect or ideal beauty can only be produced by selecting the most beautiful parts from different models; but this must be done with such judgment and care that these detached beauties when united may form the most exact symmetry. Yet the ancients sometimes confined themselves to one individual, even in the most flourishing age. Theodorus, whom Socrates and his disciples visited, served as a model to the artists of his time. Phryne also appears to have been a model to the painters and sculptors. But Socrates, in his conversation with Parrhasius, says that, when a perfect beauty was to be produced, the artists joined together the most striking beauties which could be collected from the finest figures. We know that Zeuxis, when he was going to paint Helen, united in one picture all the beauties of the most handsome women of Crotona.

SECT. V.—OF THE DRAPERY OF GRECIAN STATUES.

The Grecian sculptors, who represented with such success the most perfect beauty of the human form, were not regardless of the drapery of their statues. They clothed their figures in the most proper stuff, which they wrought into that shape which was best calculated to give effect to their design.

The vestments of women in Greece generally consisted of linen cloth, or some other light stuff, and in latter times of silk, and sometimes of woollen cloth. They had also garments embroidered with gold. In the works of sculpture, as well as in those of painting, one may distinguish the linen by its transparency and small united folds. The other light stuffs which were worn by the women were generally of cotton produced in the isle of Cos; and these the art of statuary was able to distinguish from the linen vestments. The cotton cloth was sometimes striped, and sometimes embellished with a profusion of flowers. Silk was also employed; but whether it was known in Greece before the time of the Roman emperors, cannot easily be determined. In paintings it is distinguishable by changing its color in different lights to red, violet, and sky-blue. There were two sorts of purple; that which the Greeks call the color of the sea, and Tyrian purple, which resembled lac. Woollen garments are easily known by the amplitude of their folds. Besides these, cloth of gold sometimes composed their drapery; but it was not like the modern fabric, consisting of a thread of gold or of silver spun with a thread of silk; it was composed of gold or silver alone without any mixture.

The vestments of the Greeks, which deserve particular attention, are the tunic, the robe, and the mantle.

The tunic was that part of the dress which was next to the body. It may be seen in sleeping figures, or in those in dishabille; as in the Flora Farnese, and in the statues of the Amazons in the capitol. The youngest of the daughters of Niobe, who throws herself at her mother's

side, is clothed only with a tunic. It was of linen, or some other light stuff, without sleeves, fixed to the shoulders by a button, so as to cover the whole breast. None but the tunics of the goddess Ceres and comedians have long straight sleeves.

The robes of women commonly consisted of two long pieces of woollen cloth, without any particular form, attached to the shoulders by a great many buttons, and sometimes by a clasp. They had straight sleeves which came down to the wrists. The young girls, as well as the women, fastened their robe to their side by a cincture, in the same way as the high priest of the Jews fastened his, as it is still done in many parts of Greece. The cincture formed on the side a knot of ribbons, sometimes resembling a rose in shape, which has been particularly remarked in the two beautiful daughters of Niobe. In the younger of these the cincture is seen passing over the shoulders and the back. Venus has two cinctures, the one passing over the shoulder, and the other surrounding the waist. The latter is called *cestus* by the poets.

The mantle was called *peplon* by the Greeks, which signifies properly the mantle of Pallas. The name was afterwards applied to the mantles of the other gods, as well as to those of men. This part of the dress was not square, as some have imagined, but of a roundish form. The ancients indeed speak in general of square mantles, but they received this shape from four tassels which were affixed to them; two of these were visible, and two were concealed under the mantle. The mantle was brought under the right arm, and over the left shoulder; sometimes it was attached to the shoulder by two buttons, as may be seen in the beautiful statue of *Leucothoe* at Villa Albani.

The color of vestments peculiar to certain statues is too curious to be omitted. To begin with the figures of the gods:—The drapery of Jupiter was red, that of Neptune is supposed by Winkelman to have been sea-green. The same color also belonged to the Nereids and Nymphs. The mantle of Apollo was blue, or violet. Bacchus was dressed in white. *Martianus Capella* assigns green to Cybele. Juno's vestments were sky-blue, but she sometimes had a white veil. Pallas was robed in a flame-colored mantle. In a painting of *Herculaneum*, Venus is in flowing drapery of a golden yellow. Kings were arrayed in purple; priests in white; and conquerors sometimes in sea-green.

With respect to the head, women generally wore no covering but their hair; when they wished to cover their head, they used the corner of their mantle.—Sometimes we meet with veils of a fine transparent texture. Old women wore a kind of bonnet upon their head, an example of which may be seen in a statue in the capitol, called the *Præfica*; but Winkelman thinks it is a statue of *Hecuba*.

The covering of the feet consisted of shoes or sandals. The sandals were generally an inch thick, and composed of more than one sole of cork. Those of Pallas in Villa Albani have two soles, and other statues had no fewer than five.

SECT. VI.—OF THE STYLES OF GRECIAN SCULPTURE.

Winkelman has assigned four different styles to this art. The *ancient* style, which continued until the time of Phidias; the *grand* style, formed by that celebrated statuary; the *beautiful*, introduced by Praxiteles, Apelles, and Lyssippus; and the *imitative* style, practised by those artists who copied the works of the ancient masters.

The most authentic monuments of the ancient style are medals, containing an inscription, which leads us back to very distant times. The writing is from right to left, in the Hebrew manner; a usage which was abandoned before the time of Herodotus. The statue of Agamemnon at Elis, which was made by Ornatas, has an inscription from right to left. This artisan flourished fifty years before Phidias; it is in the intervening period therefore between these two artists that we are to look for the cessation of this practice. The statues formed in the ancient style were neither distinguished by beauty of shape nor by proportion, but bore a close resemblance to those of the Egyptians and Etrurians; the eyes were long and flat; the section of the mouth not horizontal; the chin was pointed; the curls of the hair were ranged in little rings, and resembled grains enclosed in a heap of raisins. What was still worse, it was impossible by inspecting the head to distinguish the sex. The characters of this ancient style were these: the designing was energetic, but harsh; it was animated, but without gracefulness; and the violence of the expression deprived the whole figure of beauty.

The grand style was brought to perfection by Phidias, Polycletus, Scopas, Alcamenes, Myron, and other illustrious artists. It is probable, from some passages of ancient writers, that in this style were preserved some characters of the ancient manner, such as the straight lines, the squares and angles. The ancient masters, such as Polycletus, being the legislators of proportions, says Winkelman, and of consequence thinking they had a right to distribute the measures and dimensions of the parts of the human body, have undoubtedly sacrificed some degree of the form of beauty to a grandeur which is harsh, in comparison of the flowing contours and graceful forms of their successors.—The most considerable monuments of the grand style are the statues of Niobe and her daughters, and a figure of Pallas, to be seen in Villa Albani; which, however, must not be confounded with the statue which is modelled according to the first style, and is also found in the same place. The head possesses all the characters of dignified beauty, at the same time exhibiting the rigidity of the ancient style. The face is defective in gracefulness; yet it is evident how easy it would have been to give the features more roundness and grace. The figures of Niobe and her daughters have not, in the opinion of Winkelman, that austerity of appearance which marks the age of the statue of Pallas. They are characterised by grandeur and simplicity; so simple are the forms that they do not appear to be the tedious productions of art, but to have been created by an instantaneous effort of nature.

The third style was the graceful or beautiful. Lysippus was perhaps the artist who introduced this style. Being more conversant than his predecessors with the sweet, the pure, the flowing, and the beautiful lines of nature, he avoided the square forms which the masters of the second style had too much employed. He was of opinion that the use of the art was rather to please than to astonish, and that the aim of the artist should be to raise admiration by giving delight. The artists who cultivated this style did not, however, neglect to study the sublime works of their predecessors. They knew that grace is consistent with the most dignified beauty, and that it possesses charms which must ever please; they knew also that these charms are enhanced by dignity. Grace is infused into all the movements and attitudes of their statues, and it appears in the delicate turns of the hair, and even in the adjusting of the drapery. Every sort of grace was well known to the ancients; and great as the ravages of time have been amongst the works of art, specimens are still preserved, in which can be distinguished *dignified* beauty, *attractive* beauty, and a beauty *peculiar to infants*. A specimen of dignified beauty may be seen in the statue of one of the Muses in the palace of Barberini at Rome; and in the garden of the pope, on the Quirinal, is a statue of another Muse, which affords a fine instance of attractive beauty. Winkelman says that the most excellent model of infant beauty which antiquity has transmitted to us is a satyr of a year old, which is preserved, though a little mutilated, in Villa Albani.

The great reputation of Praxiteles and Apelles raised an ardent emulation in their successors, who, despairing to surpass such illustrious masters, were satisfied with imitating their works. But it is well known that a mere imitator is always inferior to the master whom he attempts to copy. When no original genius appears, the art must therefore decline.

SECT. VII.—OF THE MATERIALS OF GRECIAN STATUES.

Clay was the first material which was employed in statuary. An instance of this may be seen in a figure of Alcamenes in bas-relief in Villa Albani. The ancients used their fingers, and especially their nails, to render certain parts more delicate and lively: hence arose the phrase *ad unguem factus homo*, 'an accomplished man.' It was the opinion of count Caylus that the ancients did not use models in forming their statues. But, to disprove this, it is only necessary to mention an engraving on a stone in the cabinet of Stosch, which represents Prometheus engraving the figure of a man, with a plummet in his hand to measure the proportions of his model. The ancients as well as the moderns made works in plaster; but no specimens remain except some figures in bas-relief, of which the most beautiful were found at Baia.

The works made of ivory and silver were generally of a small size. Sometimes, however, statues of a prodigious size were formed of gold and ivory. The colossal Minerva of Phidias, which was composed of these materials, was

twenty-six cubits high. It is indeed scarcely possible to believe that statues of such a size could entirely consist of gold and ivory. The quantity of ivory necessary to a colossal statue is beyond conception. M. de Pauw calculates that the statue of Jupiter Olympus, which was fifty-four feet high, would consume the teeth of 300 elephants.

The Greeks generally hewed their marble statues out of one block, though they after worked the heads separately, and sometimes the arms. The heads of the famous group Niobe and her daughters have been adapted to their bodies after being separately finished. It is proved by a large figure representing a river, which is preserved in Villa Albani, that the ancients first hewed their statues roughly, before they attempted to finish any part. When the statue had received its perfect figure, they next proceeded to polish it with pumice-stone, and again carefully re-touched every part with the chisel.

The ancients, when they employed porphyry, usually made the head and extremities of marble. It is true that at Venice there are four figures entirely composed of porphyry; but these are the productions of the Greeks of the middle age. They also made statues of basalt and alabaster.

SECT. VIII.—OF EXPRESSION, GESTURE, AND ATTITUDE.

Without expression, gesture, and attitude, no figure can be beautiful, because in these the graces always reside. It was for this reason that the graces are always represented as the companions of Venus.

The expression of tranquillity was frequent in Grecian statues, because, according to Plato, that was considered as the middle state of the soul between pleasure and pain. Experience, too, shows that in general the most engaging manner. Without a sedate tranquillity, dignified beauty could not exist. It is in this tranquillity, therefore, that we must look for the complete display of genius.

The most elevated species of tranquillity and repose was studied in the figures of the gods. The father of the gods, and even inferior divinities, are represented without emotion or resentment. Jupiter is not always exhibited in this tranquil state. In a bas-relief belonging to the marquis Rondini, he appears seated on an arm-chair with a melancholy aspect. The Apollo of the Vatican represents the god in a fit of rage against the serpent Python, which he kills at a blow. The artist, adopting the opinion of the poets, has made the nose the seat of anger, and the lips the seat of disdain.

To express the action of a hero, the Grecian sculptors delineated the countenance of a noble virtuous character repressing his groans, and allowing no expression of pain to appear. In describing the action of a hero, the poet has much more liberty than the artist. The poet can paint them such as they were before men were taught to subdue their passions by the restraints of law, or the refined customs of social life. But the artist, obliged to select the most beautiful forms, is reduced to the necessity of giving such an ex-

pression of the passions as may not shock our feelings, and disgust us with his production. The truth of these remarks will be acknowledged by those who have seen two of the most beautiful monuments of antiquity; one of which represents the fear of death, the other the most violent pains and sufferings. The daughters of Niobe, against whom Diana has discharged her fatal arrows, are exhibited in that state of stupefaction which we imagine must take place when the certain prospect of death deprives the soul of all sensibility. The fable presents us an image of that stupor which Eschylus describes as seizing Niobe when they were transformed into a rock. The other monument referred to is the image of Laocoon, which exhibits the most agonising pain that can affect the muscles, the nerves, and the veins. The sufferings of the body and the elevation of the soul are expressed in every member with equal energy, and form the most sublime contrast imaginable. Laocoon appears to suffer with such fortitude, that, whilst his lamentable situation pierces the heart, the whole figure fills us with ambitious desire of imitating his constancy and magnanimity in the pains and sufferings that may fall to our lot.

Philoctetes is introduced by the poets, shedding tears, uttering complaints, and rending the air with his groans and cries; but the artist exhibits him silent, and bearing his pains with dignity. The Ajax of the celebrated painter Timomachus is not drawn in the act of destroying the sheep which he took for the Grecian chiefs, but in the moments of reflection which succeeded that frenzy. So far did the Greeks carry their love of calmness and slow movements, that they thought a quick step always announced rusticity of manners. Demosthenes reproaches Nicobulus for this very thing; and from the words he makes use of it appears, that to speak with insolence and to walk hastily were reckoned synonymous.

In the figures of women, the artists have conformed to the principle observed in all the ancient tragedies and recommended by Aristotle, never to make women show too much intrepidity or excessive cruelty. Conformable to this maxim, Clytemnestra is represented at a little distance from the fatal spot, watching the murderer, but without taking any part with him. In a painting of Timomachus representing Medea and her children, when Medea lifts up the dagger they smile in her face, and her fury is immediately melted into compassion for the innocent victims. In another representation of the same subject, Medea appears hesitating and indecisive. Guided by the same maxims, the artists of most refined taste were careful to avoid all deformity, choosing rather to recede from truth than from their accustomed respect for beauty, as may be seen in several figures of Hecuba. Sometimes, however, she appears in the decrepitude of age, her face furrowed with wrinkles, and her breasts hanging down.

Illustrious men, and those invested with offices of dignity, are represented with a noble assurance and firm aspect. The statues of the Roman emperors resemble those of heroes, and are far removed from every species of flattery, in the gesture,

in the attitude, and action. They never appear with haughty looks, or with the splendor of royalty; no figure is ever seen preseatting any thing to them with bended knee, except captives; and none addresses them with an inclination of the head. In modern works too little attention has been paid to the ancient costume. Winkelman mentions a bas-relief, which was lately executed at Rome for the fountain of Trevi, representing an architect in the act of presenting the plan of an aqueduct to Marcus Agrippa. The modern sculptor, not content with giving a long beard to that illustrious Roman, contrary to all the ancient marble statues as well as medals which remain, exhibits the architect on his knees.

In general it was an established principle to banish all violent passions from public monuments. This will serve as a decisive mark to distinguish the true antique from supposititious works. A medal has been found exhibiting two Assyrians, a man and woman tearing their hair, with this inscription, ASSYRIA. ET. PALESTINA. IN. POTES. P. R. REDAC. S. C. The forgery of this medal is manifest from the word Palestina, which is not to be found in any ancient Roman medal with a Latin inscription. Besides the violent action of tearing the hair does not suit any symbolical figure. This extravagant style, which was called by the ancients parenthesis, has been imitated by most of the modern artists. Their figures resemble comedians on the ancient theatres, who, in order to suit the distant spectators, put on painted masks, employed exaggerated gestures, and far overleaped the bounds of nature. This style has been reduced into a theory in a treatise on the passions composed by Le Brun. The designs which accompany that work exhibit the passions in the very highest degree, approaching even to frenzy: but these are calculated to vitiate the taste, especially of the young; for the ardor of youth prompts them rather to seize the extremity than the middle; and it will be difficult for that artist who has formed his taste from such empassioned models ever to acquire that noble simplicity and sedate grandeur which distinguished the works of ancient taste.

SECT. IX.—OF PROPORTION.

Proportion is the basis of beauty, and there can be no beauty without it; on the contrary, proportion may exist where there is little beauty. Experience every day teaches us that knowledge is distinct from taste; and proportion, therefore, which is founded on knowledge, may be strictly observed in any figure, and yet the figure have no pretensions to beauty. The ancients, considering ideal beauty as the most perfect, have frequently employed it in preference to the beauty of nature.

The body consists of three parts as well as the members. The three parts of the body are the trunk, the thighs, and the legs. The inferior parts of the body are, the thighs, the legs, and the feet. The arms also consist of three parts. These three parts must bear a certain proportion to the whole as well as to one another. In a well-formed man the head and body must be proportioned to the thighs, the legs, and the feet, in the same manner as the thighs are proportioned to

the legs and the feet, and the arms to the hands. The face also consists of three parts, that is, three times the length of the nose; but the head is not four times the length of the nose, as some writers have asserted. From the place where the hair begins to the crown of the head are only three-fourths of the length of the nose, or that part is to the nose as nine to twelve.

It is probable that the Grecian, as well as the Egyptian artists, have determined the great and small proportions by fixed rules; that they have established a positive measure for the dimensions of length, breadth, and circumference. This supposition alone can enable us to account for the great conformity which we meet with in ancient statues. Winkelman thinks that the foot was the measure which the ancients used in all their great dimensions, and that it was by the length of it that they regulated the measure of their figures by giving to them six times that length. This in fact is the length which Vitruvius assigns, *Pes vero altitudinis corporis sextæ, l. 3, cap. 1.* That celebrated antiquary thinks the foot is a more determinate measure than the head or the face, the parts from which modern painters and sculptors too often take their proportions. This proportion of the foot to the body, which has appeared strange and incomprehensible to the learned Huetius, and has been entirely rejected by Perrault, is, however, founded upon experience. After measuring with great care a vast number of figures, Winkelman found this proportion observed not only in Egyptian statues, but also in those of Greece. This fact may be determined by an inspection of those statues the feet of which are perfect. One may be fully convinced of it by examining some divine figures, in which the artists have made some parts beyond their natural dimensions. In the Apollo Belvidere, which is a little more than seven heads high, the foot is three Roman inches longer than the head. The head of the Venus de Medicis is very small, and the height of the statue is seven heads and a half; the foot is three inches and a half longer than the head, or precisely the sixth part of the length of the whole statue.

SECT. X.—OF THE PRACTICE OF SCULPTURE.

We have been thus minute in our account of the Grecian sculpture because it is the opinion of the ablest critics that modern artists have been more or less eminent as they have studied with the greater or less attention the models left us by that ingenious people; Winkelman goes so far as to contend that the most finished works of the Grecian masters ought to be studied in preference even to the works of nature. This appears to be paradoxical; but the reason assigned by the abbé for his opinion is that the fairest lines of beauty are more easily discovered, and make a more striking and powerful impression, by their reunion in these sublime copies, than when they are scattered far and wide in the original. Allowing, therefore, the study of nature the high degree of merit it so justly claims, it must nevertheless be granted that it leads to true beauty by a much more tedious, laborious, and difficult path than the study of the antique, which presents immediately to the artist's view the ob-

ject of his researches, and combines in a clear and strong point of light the various rays of beauty that are dispersed through the wide domain of nature.

As soon as the artist has laid this excellent foundation, acquired an intimate degree of familiarity with the beauties of the Grecian statues, and formed his taste after the admirable models they exhibit, he may then proceed with advantage and assurance to the imitation of nature. The ideas he has already formed of the perfection of nature, by observing her dispersed beauties combined and collected in the compositions of the ancient artists, will enable him to acquire with facility and to employ with advantage the detached and partial ideas of beauty which will be exhibited to his view in a survey of nature in her actual state. When he discovers these partial beauties, he will be capable of combining them with those perfect forms of beauty with which he is already acquainted. In a word, by having always present to his mind the noble models already mentioned, he will be in some measure his own oracle, and will draw rules from his own mind.

There are, however, two ways of imitating nature. In the one, a single object occupies the artist, who endeavours to represent it with precision and truth; in the other, certain lines and features are taken from a variety of objects, and combined and blended into one regular whole. All kinds of copies belong to the first kind of imitation; and productions of this kind must be executed necessarily in the Dutch manner, that is to say, with high finishing, and little or no invention. But the second kind of imitation leads directly to the investigation and discovery of true beauty, of that beauty whose idea is connate with the human mind, and is only to be found there in its highest perfection. This is the kind of imitation in which the Greeks excelled, and in which men of genius excite the young artists to excel after their example, viz. by studying nature as they did.

After having studied in the productions of the Grecian masters their choice and expression of select nature, their sublime and graceful contours, their noble draperies, together with that sedate grandeur and admirable simplicity that constitute their chief merit, the curious artist will do well to study the manual and mechanical part of their operations, as this is absolutely necessary to the successful imitation of their excellent manner.

The ancients almost always formed their first models in wax: to this modern artists have substituted clay, or some such composition: they prefer clay before wax in the carnations, on account of the yielding nature of the latter, and its sticking in some measure to every thing it touches. We must not, however, imagine hence, that the method of forming models of wet clay was either unknown or neglected among the Greeks; on the contrary, it was in Greece that models of this kind were invented. Their author was Dibutades of Sicyon: and it is well known that Arcesilas, the friend of Lucullus, obtained a higher degree of reputation by his clay models than by all his other productions. Indeed, if clay

could be made to preserve its original moisture, it would undoubtedly be the fittest substance for the models of the sculptor; but when it is placed either in the fire, or left to dry imperceptibly in the air, its solid parts grow more compact, and the figure, losing thus a part of its dimensions, is necessarily reduced to a smaller volume. This diminution would be of no consequence, did it equally affect the whole figure, so as to preserve its proportions entire. But this is not the case; for the smaller parts of the figure dry sooner than the larger; and thus, losing more of their dimensions in the same space of time than the latter do, the symmetry and proportions of the figure inevitably suffer. This inconveniency does not take place in those models that are made in wax. It is indeed extremely difficult, in the ordinary method of working the wax, to give it that degree of smoothness that is necessary to represent the softness of the carnations or fleshy parts of the body. This inconveniency may, however, be remedied, by forming the model first in clay, then moulding it in plaster, and lastly, casting it in wax. And, indeed, clay is seldom used but as a mould in which to cast a figure of plaster, stucco, or wax, to serve henceforth for a model by which the measures and proportions of the statue are to be adjusted. In making waxen models, it is common to put half a pound of colophony to a pound of wax; and some add turpentine, melting the whole with oil of olives.

So much for the first or preparatory steps in this procedure. It remains to consider the manner of working the marble after the model so prepared; and the method here followed by the Greeks seems to have been extremely different from that which is generally observed by modern artists. In the ancient statues we find the most striking proofs of the freedom and boldness that accompanied each stroke of the chisel, and which resulted from the artist's being perfectly sure of the accuracy of his idea, and the precision and steadiness of his hand: the most minute parts of the figure carry these marks of assurance and freedom; no indication of timorousness or diffidence appear; nothing that can induce us to fancy that the artist had occasion to correct any of his strokes. It is difficult to find, even in the second-rate productions of the Grecian artists, any mark of a false stroke or a random touch. The firmness and precision of the Grecian chisel were certainly derived from a more determined and perfect set of rules than those which are observed in modern times.

The method generally observed by the modern sculptor is as follows: first, out of a great block of marble he saws another of the size required, which is performed with a smooth steel saw, without teeth, casting water and sand thereon from time to time; then he fashions it, by taking off what is superfluous with a steel point and a heavy hammer of soft iron; after this, bringing it near the measure required, he reduces it still nearer with another finer point; he then uses a flat cutting instrument, having notches in its edge; and then a chisel, to take off the scratches which the former has left; till at length, taking rasps of different degrees of fineness, by dc-

grees he brings his work into a condition for polishing.

After this, having studied his model with all possible attention, he draws upon this model horizontal and perpendicular lines intersecting each other at right angles. He then copies these lines upon his marble, as the painter makes use of such transversal lines to copy a picture, or to reduce it to a smaller size. These transversal lines or squares, drawn in an equal number upon the marble and upon the model, in a manner proportioned to their respective dimensions, exhibit accurate measures of the surfaces upon which the artist is to work; but cannot determine, with equal precision, the depths that are proportioned to these surfaces.—The sculptor, indeed, may determine these depths by observing the relation they bear to his model; but, as his eye is the only guide he has to follow in this estimate, he is always more or less exposed to error, or at least to doubt; he is never sure that the cavities made by his chisel are exact; a degree of uncertainty accompanies each stroke; nor can he be assured that it has carried away neither too much nor too little of his marble. It is equally difficult to determine, by such lines as have already been mentioned, the external and internal contours of the figures, or to transfer them from the model to the marble. By the internal contour is understood that which is described by the parts which approach towards the centre, and which are not marked in a striking manner.

In a complicated and laborious work, which an artist cannot execute without assistance, he is often obliged to make use of foreign hands, that have not the talents or dexterity that are necessary to finish his plan. A single stroke of the chisel that goes too deep is a defect not to be repaired; and such a stroke may easily happen, where the depths are so imperfectly determined. Defects of this kind are inevitable, if the sculptor, in chipping his marble, begins by forming the depths that are requisite in the figure he designs to represent. Nothing is more liable to error than this manner of proceeding. The cautious artist ought, on the contrary, to form these depths gradually, by little and little, with the utmost circumspection and care; and the determining of them with precision ought to be considered as the last part of his work, and as the finishing touches of the chisel.

The various inconveniences attending this method determined several eminent artists to look out for one that would be liable to less uncertainty, and productive of fewer errors. The French academy of painting at Rome hit upon a method of copying the ancient statues, which some sculptors have employed with success even in the figures which they finished after models in clay or wax. This method is as follows:—The statue that is to be copied is enclosed in a frame that fits it exactly. The upper part of this frame is divided into a certain number of equal parts, and to each of these parts a thread is fixed with a piece of lead at the end of it. These threads, which hang freely, show what parts of the statue are most removed from the centre with much more perspicuity and precision than the lines which are drawn upon its surface, and which

pass equally over the higher and hollow parts of the block: they also give the artist a tolerable rule to measure the more striking variations of height and depth, and thus render him more bold and determined in the execution of his plan.

But even this method is not without its defects: for as it is impossible, by the means of a straight line, to determine with precision the procedure of a curve, the artist has, in this method, no certain rule to guide him in his contours; and as often as the line which he is to describe deviates from the direction of the plumb line, which is his main guide, he must necessarily find himself at a loss, and be obliged to have recourse to conjecture.

It is also evident that this method affords no certain rule to determine exactly the proportion which the various parts of the figure ought to bear to each other, considered in their mutual relation and connexion. The artist, indeed, endeavours to supply this defect by intersecting the plumb-lines by horizontal ones. This recourse has, nevertheless, its inconveniences, since the squares formed by transversal lines, that are at a distance from the figure (though they be exactly equal), yet represent the parts of the figure as greater or smaller, according as they are more or less removed from our position or point of view. But, notwithstanding these inconveniences, the matter now under consideration is certainly the best that has hitherto been employed: it is more practicable and sure than any other we know, though it appears, from the remarks we have now been making, that it does not exhibit a sure and universal criterion to a sculptor who executes after a model.

To polish the statue, or make the parts of it smooth and sleek, they use pumice-stone and smelt, then tripoli; and, when a still greater lustre is required, they use burnt straw. For the casting of statues, see **FOUNDRY**

SECT. XI.—OF THE MODERN HISTORY AND STATE OF THE ART.

The art of sculpture (which never found any very distinguished followers among the Romans) fell into complete disuse in the middle ages, although ornaments of different kinds, together with rude images, were profusely lavished on the various churches. The revival of painting produced a like resuscitation of the sister art; and, amongst the earliest professors who strove to rescue sculpture from its disrespected state, appeared Donatello, or (to give him his true name) Donato di Bardi, born at Florence in 1383. There had, indeed, been some efforts made even a century before his time towards the same laudable purpose; and, of those engaged therein, we may mention the names of Nicholas Pisano, who was designated by his countrymen *Ritrovatore del buon gusto nella Scultura*, 'Restorer of fine taste in Sculpture,' and his son, Giovanni Pisano, who was one of the best artists of his age, and whose works are numerous at Pisa his country; Angelo and Agostino Sanese, who died about 1340; Andre Agolino died 1345; Andre Orcagna, surnamed *Bufalmaco*, who was an excellent artist, for his time, and died 1389, as did also André Pisani, the author of several good

SCULPTURE.

PLATE II.



figures in the church of Santa Maria del Fiore at Florence. Michelo Aignani died in 1400; Jac. della Quercia in 1418; N. di Banco in 1421; Luca della Robbia in 1442. This man possessed the means of overlaying his productions in terra cotta with a fine varnish, which circumstance caused them to be much sought for throughout Europe.

Donato was one of the greatest men concerned in the revival of the art of sculpture. It was one of his figures, a bronze statue of St. Mark, that Michel Angiolo is said to have addressed in these emphatic words—'Marco, per che non mi parli?' 'Mark, why do you not speak to me?' Another remarkable production of his hand is the figure of an old man with his head shaved, to be found at Florence, and called the *Tondu* or bald man. Donato died in 1466, at the advanced age of eighty-three. Amongst his most favorite pupils we may class:—Bertolde, a Florentine; Didier da Settignano, a most promising artist, who died at the early age of twenty-eight; Vellano of Padua; Rossellino; F. Camilliani, and M. Michelozzi. Simon, brother of Donatello, also followed his manner. This artist was summoned to Rome by the pope Eugenius IV., and made one of the bronze gates of St. Peter's. Prato, Rimini, Florence, and Arezzo possess sundry works of Simon. Benedetto di Majana flourished about 1460. André Pisano, commonly called Pisanello, a pupil of André del Castagno for painting, acquired considerable reputation in sculpture, more particularly distinguishing himself in the execution of medals. We also find, Giovanni Antonio Amadei, died 1470; A. Rossellino, called Gamberelli, 1490; G. Vellano, 1493; A. Abondio, 1520; G. F. Rustichio, 1528; A. Contucci, 1529; A. R. Briosco, 1532; G. Sanctacroce, 1537; A. Bus-to, called Bambaja, about 1538; L. Lotto, called Lorenzetto, 1541 (according to Vasari, this was the first restorer of the antique statues); B. Agnolo, 1543; P. Clemente, 1548; G. Campagna and L. Leoni, about 1550; S. Mosca, 1554; A. Begarelli and G. Bandini, called Benedetto, about 1555, with A. Zotto; D. Cattaneo, A. Minganti, and F. Mosca, called Moschino, 1560; A. Berrugineta, 1561; A. and L. Calamech, 1564. André Verocchio is particularly known through the celebrity of his pupils Pierre Perugin and Lionardo da Vinci—of the latter of whom becoming jealous, he quitted painting altogether and attached himself wholly to sculpture. Jean François Rustici, born at Florence about 1470, was an élève of Verocchio, and afterwards of Lionardo da Vinci, who taught him the methods of modelling, of carving in marble, and casting in bronze. Rustici was invited to Paris by Francis I., who employed him to work from the model of a horse twice as large as life, and his performance when finished was to have borne a statue of the king himself; but that prince's death suspended the undertaking. Rustici died at Paris in 1550.

We now cite the name of Michel Angiolo Buonarroti, one of the very greatest names of modern art, whether regarded as sculptor, painter, or architect. He was born in 1474 and died in 1564, at the advanced age of ninety. The pro-

ductions of his chisel enriched several of the Italian cities. The beautiful group of Notre Dame de Pitié in the basilica of St. Peter's; the colossal statue of Julius II.; the three figures executed for the tomb of that pontiff, the centre one of which is the far famed Moses; the David combating Goliath; the victory at Florence:—these, among many others, bear abundant evidence of the transcendent skill of the artist. The statue representing Night, upon the tomb of Julian de Medicis, is considered by Keyssler worthy of a parallel with the most admired works of antiquity. Giacomo Tatti, better known under the title of Sansovino (the place where he was born), was architect likewise as well as sculptor. See ARCHITECTURE. This artist made at Rome (at the same time with two other able sculptors) a model of the famous antique group of the Laocoon to cast in bronze. Sansovino's was esteemed the best, on the authority of Raffaëlle. The lodge of St. Mark's Place at Venice is the work of the same artist, who placed in niches four bronze statues representing Palas, Apollo, Mercury, and Peace. One of his celebrated performances (the greater part of which are at Rome and Florence) was a marble statue of Bacchus, lost in the fire at the grand duke's palace in 1762: an engraving of it remains in the third volume of the Musée de Florence. The Virgin in the church of St. Mark, and a figure St. John Baptist, in that of Casa Grandia, pass for the chefs d'œuvre of this master. He died at Venice in 1570, eighty-three years old. Baccio Bandinelli, born at Florence in 1487, had for his first master his father, who was a goldsmith, but afterwards received instructions from Rustici. He was a good designer; his manner was learned and striking, and bore some resemblance to that of Michel Angiolo. There is, however, in the Pitti palace, a Bacchus in marble treated in a manner very soft and graceful. To Bandinelli was imputed the heavy charge of his having been seduced by jealousy to destroy the cartoons of Michel Angiolo and of Lionardo da Vinci. It was he who restored, in terra cotta, the right arm of the Laocoon, the original having been lost. Skillful in anatomy, he was accused of having been too fond of displaying that knowledge. He died in 1559. Amongst his most renowned pupils were:—P. da Vinci (nephew of Lionardo), died 1570; B. Ammanati, born at Florence in 1511; V. Rossi and J. B. D. Lorenzi, who sculptured, at Florence, at the tomb of Michel Angiolo, a figure of painting, together with the bust of that great artist. Benvenuto Cellini was born at Florence in 1500, and died in 1570. He was painter, goldsmith, and sculptor. He also was summoned to Paris by Francis I. Propertia Rossi is one of the few female names that we meet with among the sculptors of this early date. This interesting woman lays claim to notice in several ways. She studied and well understood the laws of perspective and architecture; nor did the science of music escape her observation. She likewise executed some pretty drawings in pen and ink. Her fame as a sculptor rests principally on a bust of the count Guido, and upon two angels in marble with which she decorated the façade of the church

of St. Petronia. This poor young creature fell a victim to the chagrin arising from a hopeless attachment, in 1530. D. Ricciarelli, called Volterra (the town wherein he was born, about 1509), was the friend and imitator of Michel Angiolo. L. Ricciarelli, his nephew, was likewise a good sculptor. Amongst his other élèves were:—M. Alberti, of Florence; F. da San Vito, of Rome; J. Mazzoni; Pelegrin, of Bologna, called Tibaldi; M. di Sienne; J. P. Rossetti, of Volterra; and D. B. da Cormigliano, of Pistoia. The year 1576 witnessed the death of Gaspard Bacerra. V. Dante, who executed the admired statue of pope Julius II., died in 1576. G. D. D'Auria in 1585. A. Fontana in 1587. P. Scavezzi in 1590. G. B. Lorenzi in 1593. G. Della Porta, born at Milan, studied under his uncle, and cultivated the art of drawing at Geneva from the lessons of Périn del Vaga. In this town he also produced several works in sculpture. At Rome, he restored several antiques, particularly the legs of the Farnese Hercules, the work of the Athenian Glycon. These were esteemed so very beautiful that, although the antique limbs were subsequently found, Michel Angiolo expressed himself against their being restored. The pupils of Della Porta were:—G. Tedesco, who executed small statues, and ornaments in basso-rilievo, and B. Torregiani, of Bologna, who died 1596. There were also in his own family several other renowned sculptors, such as the Chevaliers J. B. and T. Della Porta. —F. Ferrucci, surnamed Tadda, lived towards the middle of the sixteenth century.

J. L. Bernini, born at Naples in 1598, was a great architect as well as sculptor. A. Algardi, born at Bologna in 1602, and died in 1654, studied painting at first in the school of Ludovico Caracci, but he afterwards went over to the sister art. He could not, however, divest himself of his old attachment; and accordingly we find him praised by some and blamed by others for endeavouring to add to the generally understood beauties of sculpture some of the effects previously considered proper to painting. Algardi, however, formed a school, which has produced D. Guidi, J. M. Baratta, J. Peroni, H. Ferrata, G. Brunelli, and C. Mazza, of Bologna. Neither should we omit to state that Algardi likewise occupied himself with engraving. A. Raggi, called the Lombard, was born in 1624 at Vicomorto, on the confines of the Milanese territory, and was successively the pupil of Algardi and Bernini. His works are numerous at Rome. J. Gonnelli, surnamed the blind man of Cambassi (the name of his country in Tuscany), studied successfully under Peter Tacca. Having lost his sight, at the early age of twenty, he nevertheless did not abandon the practice of his art, but executed several figures in terra cotta, guided by tact alone. It is thus that he made a statue of Cosmo, first grand duke of Tuscany. J. B. Tubi saw the light at Rome in 1630. This man appears to have practised chiefly in France, where he was admitted into the Royal Academy in 1663. He made a beautiful copy of the group of the Laocoon, and ornaments one of the apartments in the palace of Trianon. He died at Paris in 1700. C.

Rusconi was born at Milan in 1658, where he learnt sculpture, and afterwards proceeded to Rome in order to perfect himself therein. Passionately devoted to the antique, he copied the Antinous, the Rape of Proserpine, the Belvidere Apollo, and twice the Farnese Hercules. The Apollo and one of the latter figures were brought over to this country. The disciples of Rusconi were J. Rusconi and J. B. Maini, both artists of reputation. Angelo Rossi follows, distinguished both as a sculptor and drawer. His claim to merit is more particularly founded on the excellence of his bassi rilievi. Not only has he surpassed all his predecessors in that particular walk, but has served as a model to those succeeding him. Rossi did not treat bassi rilievi in the manner of Algardi, who gave a considerable projection to the figures, but observed that demi-relief which certainly approaches very near to the method taken by the ancients. His basso rilievo made for the tomb of Alexander VIII., and representing several canonisations made by that pope, is regarded as the most exquisite of all the ornaments of a similar character which adorn the basilica of St. Peter's. He left only one pupil of any note—namely, F. Moderati, of Milan, of whom there are extant two stucco figures of Venus in the palace of the apostolical chancery at Rome. G. G. Zumbo, born at Syracuse in 1656, became a sculptor without any other aid than that of his own genius. He used in all his works no other substance than colored wax, which, however, he prepared in a peculiar manner. Warin and Le Bel had possessed, it is true, this secret before him: but it was reserved for Zumbo to bring it to perfection. It was this artist who executed for the grand duke of Tuscany the famous subject known by the name of La Corruzione: this singular composition consists of five figures, of which the first is a man dying, the second a dead corpse, the third a body beginning to decay, the fourth, another in a further stage of decomposition, and the fifth an appalling spectacle of complete putrefaction! Great horror is inspired by the sight of these objects, owing to the truth and correctness which the artist has thrown into their delineation. He died in France in 1701.

The following names will complete our catalogue of *Italian* sculptors: of their peculiar merits little is now known.—A. Vittoria, died 1608; A. G. Da Faenza, 1609; F. Cordine, surnamed Franciosino, 1612; O. Censore, 1622; C. Garafaglia, 1630; C. Molli and P. G. Tacca, 1640; F. Mocchi, 1646; F. Agnesini and P. Bacci, about 1650; G. B. Bissoni, 1657; F. Baratta, 1666; G. B. Volpi, about 1670; M. Maglia, 1768; L. Bernini, 1682; P. P. Nardini, 1684; F. Ferrata, 1686; L. Ottone, about 1691; G. B. Foggini, about 1700; G. Mazzoli, 1725; M. Benzi and G. Mazzo, 1740; P. Mazetti, 1744; A. Corradini, 1752; and, to conclude, F. Schiafino, 1765. The most celebrated name connected in our day with Italian sculpture is that of the lamented Canova. Thorwaldsen, however, although by country a Dane, has been accustomed so long to practise in Italy, that his name may be permitted to stand by the great one just mentioned.

We now proceed to give a list of those sculptors who have distinguished themselves in the neighbouring kingdom of *France*. The first of these, respecting whom their countrymen have much cause to boast, is Jean Gougon, of Paris. The date of his birth is unknown; nor are there many authentic circumstances related of his life. He must, nevertheless, be regarded as the restorer of sculpture in France. One of his most considerable performances is the fountain of Nymphs, called the Innocents, begun in the reign of Francis I., and completed under that of Henry II., in 1550. Gougon also distinguished himself, not only as an architect but as an engraver of medals. This artist was slain, as a huguenot, on the bloody festival of St. Bartholomew, 1572. G. Pilon, of Paris, was the author of various works, chiefly distributed about the churches of that city, which may be said to possess the principle of grace rather than that of correctness. The town of Douai gave birth to Jean de Bologne, whose works enriched several of the Italian cities. This artist wrought perhaps the most colossal figure that owes its origin to modern art. It is named, we know not why, the Appennine, and represents Jupiter Pluvius seated. It is so large that within the head is a capacious pigeon-house, whilst the hollow of the trunk is occupied by a grotto adorned with shells and jets d'eau. John of Bologna wrought with great skill both in marble and bronze, and his naked figures are particularly elegant and graceful. Born in 1524, he died in 1608. Amongst the great body of his pupils we may select P. Francoville; Anziरेvelle; Adrian, a Fleming; Moca; A. Susini; F. Della Bella, and Gasper his brother, both of Florence; and Pierre Tacca. The latter is, perhaps, the most celebrated of any, and was engaged to complete all the works left unfinished at his master's death; among which was the horse which bore the statue of Henry IV., on the Pont Neuf at Paris. He died 1640. S. Guillain was born at Paris in 1581. His father was a sculptor, known by the appellation of Père Cambrai, the place of his birth. This man, having taught his son the first rudiments of his art, sent him to perfect himself therein at Rome. The greater part of Guillain's works were destroyed, together with those of other artists, during the Revolution. His style may, however, be perceived from the figures ornamenting the portals of St. Gervas, of the Sorbonne, and of the Feuillans. His followers were Anguier, Hutinot, and Jacques Sarrasin; which latter is well known among French sculptors. He was born at Noyon, but sojourned eighteen years at Rome. The performances of Sarrasin manifest almost throughout a correct taste; but his chef-d'œuvre is the group of Caryatides, decorating the grand pavilion of the old Louvre, figures, although colossal, still light and delicate. The group of Romulus and Remus, at Versailles, is likewise worthy of distinction. The school of Sarrasin has produced many excellent artists; among whom we may cite Lerambert, Le Gros, and J. Burette, of Paris, who died 1699. François Anguier, born at Eu in 1604, wrought under Simon Guillain, and under Algardi at Rome. Sentiment appears to have

been his strong point, the expression of which was before his time but comparatively little known to the French statuary. Paris received the ornament of many of this sculptor's works, but the most distinguished was the superb mausoleum of the Duc de Montmorency, beheaded at Toulouse. This monument is to be seen at Moulins, in the church of St. Mary. M. Anguier, brother of the preceding, should be classed rather amongst Italian sculptors, since he was born at Rome, and studied in the school of Algardi. The same may be said of Théodon, who died at Paris about 1680. L. Lerambert, born at Paris in 1614, preceded but a little Peter Paul Puget, painter, architect, and sculptor, born at Marseilles in 1622. Of all the performances of this celebrated artist, the most admired are, a basso-relievo representing the Assumption, at Mantua; the famous statue of Milo, placed in the park at Versailles: the rape of Andromeda by Perseus; and the Alexander before Diogenes, at Versailles; his last work, also, which was left unfinished, and is at Marseilles, has been highly esteemed; its subject is the plague of Milan. Puget died 1694. Gaspard and Balthazar Marsy were born at Cambrai, the former 1624, the latter 1628. They were first educated by their father, and did not go to Paris until 1648, where they received instructions, successively, of Sarrasin, Anguier, and Buyster. These two brothers generally worked in concert; and a favorable idea of their talent may be gained from the group of tritons giving drink to the horses of the sun, in the baths of Apollo at Versailles. E. Le Hongre, born at Paris 1628, studied under Sarrasin. Of all the sculptors employed during the splendid reign of Louis XIV. the one who has left behind him the highest reputation is François Girardon, born in 1630 at Troyes in Champagne, where he acquired the first elements of his art from studying the beautiful sculptures which then adorned his native town. After having passed some time at Rome, he repaired to Paris, where his talents were duly encouraged. The production most contributing to his fame is the mausoleum of Richelieu, in the church of Sorbonne. The equestrian statue of Louis XIV., in the Place Vendome, is another of his finest works. But, after all, the strongest point in the genius of Girardon is his facility and skill in modelling. Among the number of his pupils were Frémin, Nourrisson, Charpentier, Jean Joly of Troyes, and P. Granier, born near Montpelier in 1635. M. Van den Bogaert, surnamed Desjardins, although a Dutchman by birth (born at Breda, 1640), takes rank among French artists, since he established himself when very young at Paris, where he remained. A. Coysevox, of Spanish origin, was born at Lyons in 1640. His statues, portraits, and bassi-relievi, have embellished Paris, Versailles, Sceaux, and Chantilly. He particularly excelled in representing horses, his skill in which respect is abundantly manifested by the two groups of those animals placed at the principal entrance gate of the Tuileries. C. Vauclève was born at Paris in 1645, and studied under François Anguier. A. Flamen, born at St. Omer in 1647, had for his master Gasnard

Marsy. P. Francville, a native of Cambrai, was remarkable for purity of taste. Pierre Le Gros is a name which served to illustrate greatly the art of sculpture during the seventeenth century. He was born at Paris 1656, but did not long abide among his countrymen, having repaired to Rome at the age of ten years. N. Coustou, born 1658, excelled in the art of modelling to such a degree as rarely to use the pencil. His draperies are rich and flowing; his style chaste and delicate; but he does not seem to have caught the genuine spirit of the antique. M. Chabry, a pupil of Puget, was born in 1660. The chief of his performances embellish the town of Lyons. P. Le Pautre was born in the same year. His name is immortalised in France by the group at the Tuileries of Æneas bearing the body of his father Anchises. J. L. Lemoigne, born at Paris 1665, was an élève of Coysevox. R. Le Lorrain, born in 1660, was distinguished for scientific style, elegant and piquant expression, and masterly handling of the marble. He formed two sculptors, whose productions reflect honor on his tutoring. These were Lemoigne and Pigalle. A. Cayot was born in 1667, and wrought fourteen years under Vanclève. L. Magnière died in 1700. P. Mazeline in 1708. F. Coudrai, pupil of Coysevox, and who became first sculptor to the king of Prussia, died 1727. J. Thierry, born at Lyons 1669, was invited to Spain, where he wrought many years in marble, bronze, and lead, for the gardens and palace of St. Ildefonso. R. Frémin, born at Paris in 1672, worked at Rome in the school of the chevalier Bernini. C. Falconet was born at Lyons in 1671, and died at Paris 1762. L'Amoureux, born in 1674, was an élève of Nicolas Coustou. His native city, Lyons, possesses his best productions. G. Coustou, born at Lyons 1678, was a pupil of Coysevox, his uncle. He was brother of Nicolas. His most celebrated works are—the pediment of the Chateau d'eau, opposite the Palais Royal, and the two fine horses placed at the entrance of the Champs Elysées. J. Rousseau, élève of Nicolas Coustou, born in 1681, became first sculptor to the king of Spain, and died at Madrid. A. Vassé was born at Seine, in Provence, in 1683. Dandré Bardon commends, among others, his sculpture in the gate of the Capuchins at Paris. F. Dumont, born at Paris in 1688, was the sculptor of the two figures of St. John and St. Joseph, as well as the two corresponding ones of St. Peter and St. Paul, which decorate the portal of St. Sulpice. The Dominicans of Lisle have also a fine specimen of this sculptor's ability, in the mausoleum of Louis de Melun. G. Bouchardon, born in 1698, belongs to the school of Guillaume Coustou. In the construction of the fountain in the Rue de Grenelle at Paris, he has displayed his talent as an architect as well as statuary; and another performance well worthy of eulogy is the equestrian statue of Louis XV., erected in the place of that name, and destroyed in 1792. The horse was a perfect chef-d'œuvre. The expression of this artist was, generally speaking, rather sweet than sublime—his ideas learned rather than bold. L. S. Adam, born at Nancy in 1700, after having studied at Paris under the

most able masters, repaired to Rome, where he was employed to restore, among others, twelve antique statues, exhumed from the ruins of the palace of Marius. Two colossal figures by this artist, representing the Seine and the Marne, decorate the head of the cascade at St. Cloud. C. Francin was born at Strasburgh in 1701. Jean Baptiste, son of Jean Louis Lemoigne, was born at Paris in 1704. His two most famous works are a monument dedicated to Louis XV. in 1744, by the states of Bretagne, and the colossal equestrian statue of the same prince at Bordeaux. Lemoigne was likewise author of the mausoleum of Mignard (a very rich piece of sculpture), as also of that of Crebillon. René Michel Slodtz, better known by the appellation of Michel-Ange, was born at Paris in 1705, and demands the praise due to a style grand although simple, and to a skill in representing draperies which has, perhaps, seldom found a parallel in modern art. N. S. Adam (brother to the artist of that name before mentioned) was born at Nancy in 1705. A basso-relievo in the chapel at Versailles, representing the martyrdom of St. Victoire, is amongst the number of his most successful works. He took part with his brother in the principal group of the basin at Versailles. F. G. Adam, another brother of the preceding, was born at Nancy in 1710. J. B. Pigalle, born at Paris in 1714, was a pupil of Le Lorrain, and Lemoigne the father. This sculptor wrought at Lyons a statue of Mercury, which alone sufficed to raise his reputation. The group of infants is also fine, embellishing the façade of St. Louis at the Louvre—more particularly the naïve figure of an infant holding a cage from which a bird has escaped. The mausoleum of marshal Saxe at Strasburgh, and the pedestrian statue of Louis XV. in bronze, erected at Rheims, are both regarded as chefs-d'œuvre of execution. Amongst the pupils of this artist, we may particularize M. M. Mouchy (his nephew), Moette, Lebrun, Bocquet, and Dupre, which latter passed his life very obscurely, lending his talents to more fortunate artists, who thus fathered works above their own ability. J. F. J. Saly, born at Valenciennes in 1717, was author of a pedestrian statue of Louis XV., placed in his native town. His 'second best' was an equestrian statue in bronze of Christian IV., king of Denmark, which was erected at Copenhagen.

It may not be uninteresting to the reader to possess the following list of French sculptors who were flourishing at the commencement of the present century, and many of whom are, no doubt, still pursuing their honorable avocation:—J. L. Boyer, élève of Allegrin; L. F. Boizot; J. B. Budelot, and — Cartellier, both pupils of Bridan the elder; T. N. Delaistre, pupil of Lecomte and of Vassé; he made the statue of Phocion at the Conservative Senate; J. Demonstreuil; E. J. Dumont, élève of Pajou; Esparcieux, author of a well known bust of Raynal; Joplere, pupil of Berruer, and author of an ivory group representing the death of Lucretia; J. P. Le Sueur; P. Méraud, of the school of Bouchardon; Monet, élève of Claude Vassé; Pettitot; C. Ramey; P. Roland, pupil of Pajou, the executor of a marble bust of admiral Ruyter, for the

gallery of the Tuileries; Thierard, pupil of Barthélimi; J. B. Stouf, pupil of Coustou; Boquet; P. C. Bridan, the younger, author of a fine bust of the duke of Marlborough; Brunet; Chardin; J. M. Renaud; Mouchy, author of a marble bust of the Duc de Sully for the gallery of the Tuileries; F. Masson; Chaudet, pupil of Stouf, and author of the colossal bust of the emperor Napoleon, formerly in the hall of the Corps Législatif, and of a bust of the empress; M. Clodion; Comolli, a Piedmontese; C. L. Corbet, pupil of Berruer; J. L. Couasson; J. C. N. Lucas; J. F. J. Leriche, superintendent of the sculpture at the manufactory of Sèvres; F. F. Lemot; Dumont; Lange, of Toulouse; E. P. A. Gois, and his son and pupil; Dejoux; Salvage; Renaud; P. N. Beauvallet; Blaise, author of a fine marble bust of Giulio Romano; Montpellier, pupil of Lemoyne; Lorta, pupil of Bridan, père; Foucou; D'Égensviller; Deseine; Cardelli; A. Pajou, pupil of Coustou; Houdon; P. Roland; Allegrin; and, finally, Moëtte, pupil of Pigalle. Nor has the gentler sex forborne to pay its devoirs to this interesting art. Madame Julia Charpentier, a pupil of Pajou; madame Antoniette G. Desfont, pupil of Carlini; and madame Milot, may be particularised with high commendation.

A wide field for observation presents itself in turning to the catalogue of *Spanish* sculptors, and we regret that our confined limits will not allow us to dwell on it as the theme deserves: We shall, however, take a rapid glance over the principal names, commencing with that of Aparicio, who flourished in the eleventh century, and was commissioned by Don Sancho the Great to construct the shrine of St. Millan, still preserved in the monastery of Yuso, and presenting, if we consider its remote date, great merit both of grace and proportion. Aparicio was assisted in his work by Rodolphe. About the same time flourished Mateo, sculptor and architect. Bartolomé made, in 1278, nine stone statues, of the size of life, for the gate of the cathedral church of Tarragona. J. Castays, of Barcelona, lived towards the end of the fourteenth century, as did also Annrique, who executed the reliefs of the tomb of Don Henry II. F. Gonzalez flourished in 1399, and Centellas in 1410. A. and F. Diaz, A. F. de Sahagun, A. Rodriguez, A. Gonzalez, A. Martinez, Alvar Rodriguez, Christophe Rodriguez, J. Fernandez, F. Garcia, F., J. and M. Sanchez, J. Alfonso, John Fernandez, John Rodriguez, M. Ruiz, P. Gutierrez Nieto, together with P. and A. Lopez, were all employed, from 1418 to 1425, in executing the ornaments of the principal façade and tower of the cathedral church of Toledo. To this number we may add A. Gomez, James Rodriguez, Garcia Martinez, and John Ruiz. The marble altar-piece of the grand altar of the church of Tarragona was commenced in 1426 by P. Juan, and finished afterwards by his associate G. De La Mota. A. De Lima flourished at Toledo in 1459, as did also F. De Las Arenas, F. Garcia, &c. The sculptors belonging to the last half of the fifteenth century are:—J. Castellu, sculptor and goldsmith of Valencia, and James his son; the works of both are consider-

ably valued. J. Aleman, of Toledo, eminent for the beautiful attitudes and draperies of his statues. G. De Siloé, who obtained great reputation at Burgos from his tomb of king John II., and of the Infant, Don Alfonso. Paul Ortiz, one of the most famous names in the circle of Spanish art, and the most considerable of the restorers of sculpture. Andres, who wrought in conjunction with Nicolas:—their performances, as also those of J. De La Cruz, have a Gothic character, but display much facility of execution. B. De Ortega must not be forgotten amongst the masters of Seville, nor (still more particularly) Dancart and his pupil Marco.

Amongst the most eminent of Spanish sculptors who adorned the beginning of the sixteenth century may be ranked A. De Fries, B. J. Moran, Christiano, J. De Guadalupe, F. De Aranda, F. De Cibdad, Guillemín Digante, J. De Aranda, J. De Augos, J. Peti, P. De St. Michel, Rodrigo, Salas, Solorzano, J. De Lanos, Laberrox, and Luxan, each of whom contributed more or less to the advancement of the art generally, and in particular to the sculptures embellishing both exterior and interior, and to the beautiful shrine of the cathedral of Toledo. In the course of the same half century—namely, from 1500 to 1550, appeared P. Millan, and his son John; J. Oltzaga, sculptor and architect; F. De Lara; G. Orozco; S. De Aponte, whose productions manifest a most refined taste; D. Mieier, pupil of Dancart; J. Perez, of Seville, author of several colossal figures for the cathedral of that city; John, pupil of G. F. Aleman; J. Morlanes, who first among the Spanish sculptors adopted the style of Albert Durer, which subsequently became general; B. De Aguilar and G. De Cardenas, who were selected, with F. De Sahagun and P. Izquierdo, to adorn with sculptures the ecclesiastical theatre of the University of Alcala de Henarez; R. Aleman, remarkable for his grotesque compositions; J. Millan, son and pupil of Peter; B. Ordonez, of Barcelona, one of the most celebrated artists of his time, particularly in bassi-relievi of marble; &c. &c. We must not omit the famous Alfonso Berruguete, who likewise adorned this period as sculptor, painter, and architect. This illustrious artist, after having long sojourned at Rome, where he studied under Vasari and Buonarroti, returned to his native country; and was the first to establish there perfect correctness of drawing, the most beautiful proportions of the human body, antique grandeur and expression—in short, all which gives life to marble or to canvas. Saragossa, Grenada, Valladolid, and Salamanca, as well as the capital itself, all contain evidences of the talent of Berruguete, whose return threw into the shade the artist who had previously occupied the largest share of public attention, Philip De Vigani.

The interval from 1550 to 1600 was not fruitful with respect to the followers of sculpture in Spain; there are, however, a few great names to be selected. Among these are:—J. de Navas, pupil of Berruguete, with J. de Valencia, from the same school. P. de Salamanca had the honor of obtaining, in 1558, a royal edict whereby the art of sculpture was elevated from the me-

chical vocations to the rank of a liberal profession. Christopher of Salamanca deserves also honorable notice. But the most celebrated artist belonging to this era was Paul de Cespedes, born at Cordova, and one of the first of Spanish artists. Not only did he successively practise painting, sculpture, and architecture, but found time also to court the muse of poetry. The elegance and purity of his drawings are admirable, as is the noble air of his figures. He was skillful in anatomy, had a perfect knowledge of chiaro-scuro, and excelled in coloring. The seventeenth century produced A. Sordagna and G. Hernandez or Fernandez: the latter of whom embellished with his works Madrid, Salamanca, and, above all, Valladolid. This artist followed the impressive style of Michel Angiolo. He had the assistance of his kinsman and pupil J. F. de Hibarne. A. Pugol, of Catalonia, composed and designed with great spirit and taste, and his draperies are particularly admirable. E. Pereyra, a Portuguese, who settled early in Spain, left, among other works, a statue of St. Bruno at Madrid, eminent for character and expression. J. M. Montagnez had the talent to give his figures expressive and natural attitudes. A. Cano, born at Grenada in 1601, was an admirable sculptor; abundant proof of which is to be found in the temples of Seville, Cordova, Madrid, &c. L. F. de la Vega, born in Asturias, died at Oviedo in 1675. Don J. de Rebengo, of Saragossa, obtained a high reputation for his little figures in wax, which were remarkable for their grace and finish. J. de Mora died in 1725. Peter Roldan, and Louis his son, were both greatly esteemed among the sculptors of their day. The eighteenth century gave birth in Spain to several excellent sculptors. Don P. Duque Cornesso of Seville, and Don J. de Hinestrosa, both deserve favorable notice. A. Salvador, surnamed the Roman, died in 1766. L. S. Carmona, in 1767. Philip de Castro, of Galicia, is a most prominent artist of this era, and contributed greatly to spread the principles of fine taste throughout his country. He died in 1775. F. Gutierrez, in 1782. Besides these we may particularise Zarcillo y Alcaraz, J. P. de Mena, C Salas, and E. Alvarez. For this list of Spanish artists we are indebted to the work published at Madrid, in 1800, in 6 vols. 12mo., entitled *Diccionario Historico de los mas Ilustres Profesores de las Bellas Artes en Espagna*, compuesto por Don Juan Augustin Cean Bermudez.

We select the following names from the list of sculptors who have rendered themselves celebrated in *Germany, Holland, or Russia*. F. Duquesnoi, born at Brussels in 1594, was surnamed by the Italians the Fleming, by which appellation he is best known. This artist was most successful in the representation of infants, in which department of sculpture he has been rarely excelled. P. Buyster, born at Brussels in 1595, passed the greater part of his life in France, where he died at the age of eighty-four. Sebastian Slodtz, born at Anvers 1655, went to perfect himself in the French school of Girardon. A. Quellius, also of Anvers, embellished his native city with many admirable productions. G. Van

Obstal died at Paris in 1668. Albert Durer, so famous in other branches of the fine arts, excelled also in sculpture, both in stone and wood. L. Kern, and his son J. J. Kern, were also celebrated in their day. The latter practised a long while in England where he died in 1668. G. Leygebe, born in 1630 in Silesia, died at Berlin in 1683, in possession of the singular art of cutting beautiful little equestrian statues out of large ingots of iron. One of his most esteemed performances of this kind is at Dresden, and represents Charles II. of England, as the Chevalier St. George. M. Rauchmüller just preceded A. de Schlüter, of Hamburg, who learnt the art of sculpture at Dantzic, and afterwards repaired to Rome, where he attached himself to the manner of Michel Angiolo. B. Permoser, who died in 1732, is better known by his Christian name, Balthazar. F. X. Messerschmidt adorned Vienna, his native town, with many excellent performances. C. Osner, of Nürnberg, died at Petersburg in 1704. The count Rastrelli, of Italian origin, Zwenkof, Dunker, and Stahlmeyer, of Vienna, all practised in Russia; as likewise did Domacht, of Swiss origin. Schwartz, of Dresden, also settled at Petersburg; nor must we omit to notice a Russian artist of the name of Pawlof, who, having studied under Dunker, resorted to Paris for further instruction. To this nomenclature we may add the names of G. Petel, who died in 1636; N. Millich, in or about 1669; M. Barthel in 1674; G. G. Weyhenmeyer in 1715; A. de Papenhoren, about 1745; and A. Nahl, V. Sonnenschein, and Ohumacht, who were living at the commencement of the present century.

In *our own country* sculpture has not been very successfully practised until late years. The reader is, however, congratulated on the chance now exhibited of this department of art, like painting, reaching a high point of excellence in these islands. Several admirable modern sculptors elevate with their productions the artistical reputation of the British empire, and we can reflect with pride on such names as Nollekins, Wilton, Gibbons, Scheemaker, and Banks. The following are among the most eminent of our late or living sculptors:—J. Bacon, E. H. Bailey, R. A.; J. G. Bubb, F. L. Chantry, R. A.; J. Flaxman, R. A., professor of sculpture to the Royal Academy, S. V. and L. Gahagan, G. Garrard, A. R. A., J. Henning, C. Rossi, R. A., Rouw (modeller of gems and cameos), P. Turnerelli, and R. Westmacott, R. A. Nor must we omit to mention the fair sculptor, Miss C. Adams.

In the *modern practice of the art* of sculpture the greatest name is certainly that of Michel Angiolo. 'He considered,' says Mr. Duppa, 'sculpture as his profession, and his studies throughout his whole life were more particularly directed to it, than to painting or to architecture. His first work of celebrity was a group of a Madonna with a dead Christ, called in Italian la Pietà. The subject, in its nature, is impressive, and the composition is felt with appropriate simplicity; and, of all his works, it is that which seems to have cost him the most laborious attention. With Michel Angiolo expression an

character were a primary consideration: and, although he set the antique sculpture before him as an example and a guide, this marked distinction is to be taken between his view of the subject and that of the ancients; he made ideal beauty and form subservient to expression; they, on the contrary, made expression and animation subservient to form. The Laocoon* and his two sons have more expression in their countenance than all the other antique statues united; yet Sir Joshua Reynolds has observed that, even in this instance, there is only the general expression of pain, and that the pain is still more strongly expressed by the writhing and contortion of the body than by the features. In consulting all the examples which are left of ancient sculpture, it would seem, they established it as a general principle that, to preserve the most perfect beauty, in its most perfect state, the passions were not to be expressed; all of which may be supposed, in some degree, to produce distortion and deformity in the features of the face. The group of the boxers is a remarkable instance in favor of this opinion; they are engaged in the most animated action with the greatest serenity of countenance; and, without attributes, it would be difficult to discriminate between the Juno or the Minerva, the Bacchus or the Meleager; nevertheless, in the Apollo Pythius, there is a graceful, negligent, and animated air, and in the Discobolus a vulgar eagerness of expression, which deserves to be remarked, to show the nice discrimination of character which the ancients were capable of making when the expression was not incompatible with what they considered as a higher excellence. The Bacchus of Michel Angiolo is an attempt to unite a degree of drunkenness with his character; but, inasmuch as that effect is produced, both the sculpture and the deity are degraded: of this character there are several examples in antique gems, but, however skilful the representation may be in so small a size as a gem, it is certainly not a fit subject for a statue of the proportion of life. The two female figures composing part of the present monument of Julius II. are simple and elegant; and those of Morning and Night, in the Lorenzo Chapel, are composed with great grandeur of design. The works of Michel Angiolo have always a strong and marked character of their own, his thoughts are elevated, and his figures are conceived with dignity; and, if he wants the purity and correctness of the antique (which he certainly does, in an eminent degree), his faults never degrade him into feebleness; when he is

not sublime he is not insipid; the sentiment of aggrandising his subject ever prevails, and, however he may fail in the execution, his works are still entitled to the first rank among modern productions in sculpture. Barry has truly observed, when speaking of his statue of Moses, that, although that figure may be considered as rather extravagant, yet it contains such proofs of knowledge and capacity as will ever make his name sacred among artists; and this criticism may be extended with equal propriety to his other works, whatever may be their faults. Michel Angiolo was of the middle stature, bony in his make, and rather spare, although broad over the shoulders. He had a good complexion; his forehead was square, and somewhat projecting; his eyes rather small, of a hazel color, and on his brows but little hair: his nose was flat, being disfigured by a blow he received from Torrigiano, a contemporary student with Michel Angiolo, and a sculptor of great merit, but a proud, inconsiderate, and ungovernable character.

Bevenuto Cellini, in his own life, has recorded this affair with Michel Angiolo, as it was related to him by Torrigiano himself:—‘His conversation one day happened to turn upon Michel Angiolo Buonarroti, on seeing a drawing of mine made from the celebrated cartoon of the Battle of Pisa. ‘This Buonarroti and I,’ said Torrigiano, ‘when we were young men, went to study in the church of the Carmelites, in the chapel of Massaccio; and it was customary with Buonarroti to rally those who were learning to draw there. One day, amongst others, a sarcasm of his having stung me to the quick, I was extremely irritated, and, clutching my fist, gave him such a violent blow upon his nose, that I felt the cartilage yield as if it had been made of paste, and the mark I then gave him he will carry to his grave.’ B. Cellini’s account of Torrigiano is, ‘That he was a handsome man, but of consummate assurance, having rather the air of a bravo than a sculptor: above all, his strange gestures and his sonorous voice, with a manner of knitting his brows enough to frighten any man who saw him, gave him a most tremendous appearance, and he was continually talking of his great feats amongst those bears of Englishmen whose country he had but recently left.’ We are indebted to Torrigiano for the monument of Henry VII. in Westminster Abbey, finished, according to Stow, in 1519, and for which the sculptor received £1000. His ungovernable and restless habits often precipitated him into great difficulties, and the circumstances of his death furnish a melancholy instance of the vicissitudes of life, and the baneful effects of inquisitorial jurisprudence.

‘Upon leaving England he visited Spain, and, after distinguishing himself by many excellent works, was employed by the duke D’Arcus to execute in marble a Madonna and infant Christ, of the size of nature, with high promises to be rewarded in proportion to his merit. As the duke was a grandee of the first rank, Torrigiano flattered himself with a proportional expectation. After much study and application he completed his work to his own satisfaction; and his performance was seen with delight and reverence. Impatient to possess this treasure, the duke im-

* ‘The Laocoon is finished with the chisel, showing an incredible command of execution; but in Rome I once heard a very eminent sculptor say that he believed the statue had been previously finished with the rasp and file, and that the marks of the chisel were made afterwards, to give the appearance of facility to the execution, and at the same time a roughness to the surface, which was more favorable to the general effect of the figure than if it had been left quite smooth. If the statue had been brought down to this surface at once, he said, the dexterity of the artist was more wonderful than any thing he knew of in sculpture.’

mediately sent for it; and, that his generosity might be displayed to the greatest advantage, he loaded two lacqueys with the money to defray the purchase. The bulk was promising; but when the bags were found to contain nothing but brass maravedi, which amounted only to the small sum of thirty ducats, vexation and disappointment roused Torrigiano's resentment; who, considering this present rather as an insult than as a reward for his merit, on a sudden snatched up his mallet, and without regard to the perfection of his workmanship, or the sacred character of the image, he broke it into pieces, and dismissed the lacqueys with their load of farthings to tell the tale. The grandee, with every passion alive to this merited disgrace, and perhaps impressed with horror for the sacrilegious nature of the act, presented him before the court of inquisition, and impeached him for his conduct as an infidel and a heretic. Torrigiano urged the right of an author over his own creation: Reason pleaded on his side, but Superstition sat in judgment, and he was condemned to lose his life with torture; but the holy office lost its victim—Torrighiano starved himself to death in prison (1522), to avoid its torments and the horror of the execution! He was about fifty years of age.—*Vasari*, tom. iii. p. 76.

Canova and Thorwaldsen, together with our own Chantrey, occupy the topmost rank among sculptors of the present day, or rather did so until death snatched away the former of these eminent artists. Still we are inclined to think that the performances of Canova have been somewhat over-rated. Many of them have a studied and theatrical air quite inconsistent with good taste as well as with the higher productions of Grecian art, which this sculptor always affected to copy. Mr. Mathews, in his *Diary of an Invalid*, speaking of Canova's *Venus*, one of his most vaunted figures, says: 'The boudoir of the Pitti Palace, in the centre of which stands Canova's *Venus*, brilliantly illuminated, and lined with mirrors, reflected the beauties of her figure in all directions, and exhibited the statue to the highest advantage. This is the statue which occupied the pedestal of the *Medicean Venus* during her flight to Paris, but I can find nothing divine about Canova's *Venus*. She is not worthy to officiate as chambermaid to the goddess of the Tribune. It is simply the representation of a modest woman, who seems to shrink from exposure in such a dislabille; while her Grecian prototype, in native innocence and simplicity, scarcely conscious of nakedness, seems to belong to an order of beings to whom the sentiment of shame was as yet unknown. The attitude of Canova's is constrained, and perhaps even awkward. This may arise from the manner in which she compresses that scanty drapery which the sculptor has given her, intending, I suppose, to 'double every charm it seeks to hide.' The symmetry, too, is by no means perfect. The head is manifestly too large. It is perhaps unfair to attribute to the sculptor the faults of the marble; but it is impossible not to remark that, even if the work had been more perfect than it is, the unfortunate flaws, just in those places where they are most nal à-propos, must still

have detracted much from its beauty. Many of the copies of this statue seem to me quite equal, if not superior, to the original; an infallible proof, if the remark be correct, of its mediocrity of merit.' The same intelligent traveller thus speaks of the talents of Thorwaldsen, a Danish sculptor practising at Rome:—'There is a freshness and originality in his designs, guided by the purest taste. What can be more elegant and beautiful than his basso-relievo of *Night*? His *Venus victrix* approaches nearer than any modern statue to the *Venus di Medicis*. There is a shepherd, too, which is a delightful specimen of simplicity and nature; and the charm of these statues is, that while they emulate they have not borrowed any thing from the works of the ancients.'

On the works of our own Chantrey we are disposed to enlarge with all the spirit of nationality; but a recollection of our confined limits, together with that sense of delicacy which restrains us from discussing minutely the merits of a living artist, withhold us. Mr. Chantrey's principal productions are busts; but the work which first fixed his high reputation, and is still regarded by many as his chef-d'œuvre, is a group of sleeping infants, to be seen in the cathedral at Litchfield.

Of the different modern modes of process.—Works of sculpture are performed either by hollowing or excavating, as in metals, agates, and other precious stones, and in marbles of every description; or by working in relief, as in bassi-relievi in the materials just mentioned, or in statues of metal, clay, wood, wax, marble, or stone. The excavation of precious stones forms a particular branch of art called *intaglio*, which, together with the working them in relieve, when the term *camayeau* is applied to them, belongs to the art of seal-engraving.

The excavation of metals constitutes the art of engraving, in its various branches, on metal of any kind; and its relief comprises enchasing, casting in bronze, &c.

The process of hollowing hard stone or marble will need no particular description; especially as it is now wholly in disuse, except for the forming of letters in monumental or other inscriptions.

In working in relieve the process is necessarily different, according to the materials in which the work is performed. As not only the beginning of sculpture was in clay, for the purpose of forming statues, but as models are still made in clay or wax, for every work undertaken by the sculptor; we shall first consider the method of modelling figures in clay or wax.

Few tools are necessary for modelling in clay. The clay being placed on a stand, or sculptor's easel, the artist begins the work with his hands, and puts the whole into form by the same means. The most expert practitioners of this art seldom use any other tool than their fingers, except in such small or sharp parts of their work as the fingers cannot reach.

In modelling in wax, the artist sometimes uses his fingers, and sometimes tools of the same sort as those alluded to for modelling in clay. It is at first more difficult to model in wax than

in clay, but practice will render it familiar and easy.

Of the use of the model.—Whatever considerable work is undertaken by the sculptor, whether basso-relievo, or statue, &c., it is always requisite to form a previous model of the same size as the intended work; and the model being perfected, according to the method before described, whether it is in clay, or in wax, or a cast in plaster of Paris, becomes the rule whereby the artist guides himself in the conduct of his work, and the standard from which he takes all its measurements.

Of sculpture in wood.—A sculptor in wood should first take care to choose wood of the best quality, and the most proper for the work which he intends to execute. If he undertakes a large work, requiring strength and solidity, he ought to choose the hardest wood, and that which keeps best, as oak and chestnut; but, for works of moderate size, pear or apple trees serve very well. As even these latter woods are still of considerable hardness, if the work consists only of delicate ornaments, the artist will find it preferable to take some more tender wood, provided it is at the same time firm and close; as, for instance, the Indian tree, which is excellent for this purpose, as the chisel cuts it more neatly and easily than any other wood.

The ancients made statues out of almost every different kind of wood. At Sicyon was a statue of Apollo made of box; the statue of Diana at Ephesus was of cedar. As these two sorts of wood are extremely hard and undecaying; and as cedar, in particular, is of such a nature as, according to Pliny, to be nearly indestructible, the ancients preferred them for the images of their divinities. In the temple built on Mount Cyllene in honor of Mercury, Pausanias relates, that there was a statue of that god made of citron-wood, eight feet in height. This wood was also much esteemed. The cypress likewise, being a wood not apt to spoil, nor to be damaged by worms, was also used for statues; as were the palm-tree, olive, and ebony, of which latter, according to Pliny's account, there was another statue of Diana at Ephesus. Several other kinds of wood were equally employed for this purpose, even the vine, of which the same author says there were statues of Jupiter, Juno, and Diana.

Felibien speaks of a French artist at Florence, of the name of Janni, who executed several statues in wood, in a style of finishing equal to marble, and particularly one of St. Roque, which Vasari considered as a marvellous production. The beauty of sculpture in wood consists in the tender manner of cutting the wood, free from all appearance of hardness or dryness.

Of sculpture in stone and marble.—For sculpture in marble, and other stone, the artist must make use of tools made of good steel, well tempered, and of strength proportioned to the hardness of the material.

We have in a preceding section adverted to the ordinary practice. By the dexterous and delicate use of the chisel, the sculptor gives all the softness and tenderness to the figure, till at length the rasp prepares it for being polished. Rasps are of several kinds, some straight, some curved,

and some harder or softer than others. When the sculptor has thus far finished his work with the best tools he can procure, wherever certain parts or particular works require polishing, he uses pumice-stone to make all the parts smooth and even. He then goes over them with tripoli, and, when he would give a still higher gloss, he rubs them with leather and straw ashes.

Besides the tools already mentioned, sculptors use also *the pick*, which is a small hammer pointed at one end, and at the other formed with teeth made of good steel and squared, to render them the stronger. This serves to break the marble, and is used in all places where the two hands cannot be employed to manage the mallet and chisel. The *bouchard*, which is a piece of iron, well steeled at the bottom, and formed into several strong and short points like a diamond, is used for making a hole of equal dimensions, which cannot be done with cutting tools. The bouchard is driven with the mallet or beetle, and its points bruise the marble and reduce it to powder. Water is thrown into the hole from time to time, in proportion to the depth that is made, to bring out the dust of the marble, and to prevent the tool from heating, which would destroy its temper; for the freestone dust on which tools are edged is only moistened with water to prevent the iron from heating and taking off the temper of the tool by being rubbed dry; and the trepans are wetted for the same reason. The sculptor uses the bouchard to bore or pierce such parts of his work as the chisel cannot reach without danger of spoiling or breaking them. In using it he passes it through a piece of leather, which leather covers the hole made by the bouchard, and prevents the water from spirting up in his face.

The tools necessary for sculpture, on marble or stone, are the roundel, which is a sort of rounded chisel; the houquet, which is a chisel squared and pointed; and various compasses to take the requisite measures.

The process of sculpture in stone is the same as in marble, excepting that, the material being less hard than marble, the tools used are not so strong, and some of them are of a different form, as the rasp, the handsaw, the ripe, the straight chisel with three teeth, the roundel, and the grater. If the work is executed in freestone, tools are employed which are made on purpose, as the freestone is apt to scale, and does not work like hard stone or marble. Sculptors in stone have commonly a bowl in which they keep a powder composed of plaster of Paris, mixed with the same stone in which their work is executed. With this composition they fill up the small holes, and repair the defects which they meet with in the stone itself.

In the work of Junius, *De Pictura Veterum* (lib. 2, chap. 3), and in the *Bibliothèque Grecque* of Fabricius (lib. 3, chap. 24, sect. x.), a catalogue is to be found of ancient authors who have treated of the art of sculpture. Among modern works on the theory and practice of this art, we may cite the following:—Pomponii Gaurici, *De Sculptura sive Statuaria Veterum Dialogus*, Florent. 1504, 4to., and in the ninth volume of the *Thesaurus* of Gronovius. L. B. de

Albertis, *De Sculptura*, Basil, 1540, 8vo., *De Cœlatura et Sculptura Veterum*, by Ald. Manuce, also to be found in the ninth volume of the *Thesaurus* of Gronovius. The third and fourth books of the work entitled *Gallus Romæ Hospes*, by Ludovicus Demontiosius, Rome, 1585. These have been reprinted in the *Dactylothèque* of Goriæus, likewise in the ninth volume of the *Thesaurus* of Gronovius. Jul. C. Bulengeres, *De Pictura, Plastica, et Statuaria*, in his *Opuscules*, Leyden, 1621, 8vo., and in the ninth volume of Gronovius. P. P. Rubenius, *De Imitatione Statuarum Græcarum*, in the *Cours de Peinture*, by Depiles, Paris, 1760, 12mo. The first chapter of the first book, and the fifth and sixth chapters of the second book of the *Archæologia Litteraria* de Ernesti, treat de *Marmoribus*, de *Toreutice*, et de *Plastice*. *Commentationes duæ super Veterum Eboræ, Eburneisque Signis*, by M. Heyne, in the first volume of the new *Memoirs* of the Royal Society of Gottingen; in the fourth and fifth volumes of which same *Memoirs* we find *Monumentorum Etruscorum Artis ad Genera sua et Tempora revocatum Illustratio*, by the same.

Among Italian works:—*Il Disegno del S. Ant. Franç. Doni*, ove si Tratta della Scultura e Pittura de' Colori, de' Getti, de' Modegli, con molte Cose appartinenti, Venice, 1549, 8vo. Several chapters of the Introduction to *Vite* de più eccellenti Architetti, Pittori e Scultori Italiani, by Vasari, treat of Sculpture. *Due Trattati*, uno dalle otto principale Parti d'Oreficeria, l'altero in materie dell'Arte della Scultura, dove si vedono infiniti Segreti per lavorare le Figure di Marmo, e del gettarle di Bronzo, da Benvenuto Cellini, Firenze, 1568, 4to. In the *Lezione* di M. Benedetto Varchi, *Sopra diverse Materie Poetiche e filosofiche*, Firenze, 1549, we find a letter of Cellini on the advantage which sculpture has over painting; and another little treatise of this nature is added, by the same author, to the *Essequie* di Michel Angiolo Buonarroti, Firenze, 1564, 4to. *Discorsi sopra le Antichità Romana*, di Vincentio Scamozzi, Venice, 1582, with forty folio engravings, contain several articles on sculpture, and on the marbles to be preferred for statues. *Il Riposo* di Raffaele Borghini, in cui si favella della Pittura e della Scultura e de' più illustri Pittori et Scultori, antichi e moderni, Firenze, 1584, 4to., and 1730, 4to. *Discorso intorno alla Scultura e Pittura*, di Alessandro Lami, Cremona, 1584, 4to. *L'Idèa de' Pittori, Scultori, e Architetti*, del Cav. Fed. Zuccaro, Torino, 1607, 4to. *Avvertimenti e Regole sopra l'Architettura, civile e milit.*, la Pittura Scultura, e Prospettiva, da Pietro Ant. Barca, Milan, 1620, fol. *Le Pompe della Scultura*, da Giamb. Moroni, Ferrara, 1640, 12mo. *Trattato della Pittura e Scultura*, uso ed abuso loro, composto da un Teologo (Father Ottonelli), e da un Pittore (Pietro da Cortona), Firenze, 1652, 4to. *Discorso delle Statue*, da Giovanni Andrea Borboni, Rome, 1661, 4to. Lettera, nella quale si risponde ad alcuni Quesiti di Pittura, Scultura, &c., addressed to the marquis V. Capponi, by Filippo Baldinucci, Rome, 1681. *Sfogamenti d'Ingegno sopra la Pittura e la Scultura*, dal P. F. Minozzi, Venice, 1739, 12mo. *Raccolta di Lettere sulla*

Pittura, Scultura, ed Architettura, scritte da più celebri Personaggi che in dette Arti fiorirono dal sec. xv. all. xvii. Rome, 1754, 4to, 7 vols. *Dialoghi sopra le tre Arti del Disegno*, by Giovanni Bottari, Lucca, 1754, 8vo.

In Spanish is the following:—*Varia Commensuration para la Escultura y Architettura*, por Don Juan de Arphez Villafane, Madrid, 1675, 4to.

In the French tongue we find:—*Conférences de l'Académie Royale de Peinture et Sculpture pendant l'année*, 1667, by Felibien, Paris, 1668, 4to. *Des Principes de l'Architecture, de la Sculpture, de la Peinture, et des Arts qui en dépendent*, by Felibien, Paris, 1697, 4to. *Sentimens des plus habiles Peintres, sur la Pratique de la Peinture et de la Sculpture*, mis en table de Préceptes, avec plusieurs Discours académiques, by Henri Testelin, Paris, 1680, folio. *Traité des Statues*, by F. Lemée, Paris, 1688, 8vo. *Manuscrit pour connoître les Médailles et les Statues anciennes*, by Nicolas de Porcionaro, and four of the most famous and learned antiquaries of Italy, Naples, 1713, 4to. *De la Sculpture, du Talent qu'elle demande, et de l'Art des Bas-reliefs*, by Dubos, to be found in the fiftieth chapter of the first part of his *Réflexions critiques sur la Poésie et sur la Peinture*;—*Discours sur le Beau Idéal des Peintres, Sculpteurs, et Poètes*, by L. H. Ten-Kate, included in a translation of Richardson's Works, Amst. 1728, 8vo. *Lettre sur la Peinture, Sculpture, et Architecture*, Amst., 1749, 8vo. *Essai sur la Peinture, Sculpture, et Architecture*, by L. P. de Bachaumont, Paris, 1731, 12mo. In the twentieth volume of *Memoires de l'Académie des Inscriptions* is a *Memoir* of the Comte de Caylus, sur un *Moyen d'incorporer la Couleur dans le Marbre, et de fixer le Trait*. *Réflexions sur la Sculpture*, by E. Falconet, Paris, 1761, 12mo. *Nouveaux Sujets de Peinture et de Sculpture*, Paris, 1755, 12mo. *Essai sur la Sculpture*, to be found with the *Traité de Peinture* of Dandré Bardon, Paris, 1765, 2 vols. 12mo. *Histoire Universelle traitée relativement aux Arts de Peindre et de Sculpter*, Paris, 1769, 2 vols. 12mo. *Ichnologie, ou Discours sur les quatre Arts d'Architecture, Peinture, Sculpture, et Gravure*, avec des Notes historiques, cosmographiques, chronologiques, généalogiques, et Monogrammes, Chiffres, Lettres initiales, Logoglyphes, &c., by M. Herbert, Paris, 1767, 5 vols. 12mo. *De l'Usage des Statues chez les Anciens*, *Essai historique*, Brussels, 1766, 4to, with prints. (The Comte de Guasco is the author of this work). *Lettre sur la Sculpture à M. Théodore de Smeth*, by M. Hemsterhuis the younger, Amst. 1768, 4to., with engravings. *Observations historiques et critiques sur les Erreurs des Peintres, Sculpteurs, &c.*, dans la *Représentation des Sujets tirés de l'Histoire-sainte*, avec des *Eclaircissemens* pour les rendre plus exactes, Paris, 1771, 12mo. In the *Cours d'Architecture* de F. Blondel (Paris, 1771), we find a *Mémoire sur l'Origine de la Sculpture*.

The following also may be cited as conveying information with respect to the execution of various works of sculpture:—*Discours sur la Statue Equestre de Frédéric Guillaume érigée sur*

e Pont-Neuf à Berlin, by C. Ancillon, Berlin, 1703, fol. Description de ce qui a été pratiqué pour fonder d'un seul jet la Statue Equestre de Louis XIV. en 1699, by G. Boffrand, Paris, 1743, fol. Description des Travaux qui ont précédé, accompagné, et suivi la Fonte en bronze, d'un seul jet, de la Statue Equestre de Louis XV., Paris, 1768, fol. Description de la Statue Equestre que la Compagnie des Indes Orientales à Copenhague, a consacrée à la Gloire de Frédéric V., avec les explications des motifs qui ont déterminé le choix des différentes parties qu'on a suivi dans la composition de ce monument, by J. F. J. Saily, Copenhagen, 1771, fol.

In German:—Joachim de Sandrart, *Admiranda Artis Statuarie*, Normandy, 1680, fol. Summary of the History and Principles of the Fine Arts and Sciences, the first division of which relates to the history and principles of sculpture, Berlin, 1772, 8vo. by A. F. Busching. Sketch of a History of the Arts of Design, Hamburg, 1781, 8vo. by the same. *Philosophy of Sculptors*, by E. L. Huch, Brandenburg, 1775, 8vo. The fifth and sixth chapters of the Treatise on Literature and the Works of Art of Antiquity, by J. F. Christ, Leipsic, 1776, 8vo. Treatise on the Plastic Art, including sundry Observations on Form and Figure, Riga, 1778. In the first volume of an Essay on an Academy of Fine Arts, by C. F. Prangen, we find a treatise on the Mechanism of Sculpture. Essay on a History of Sculpture among the Ancients, by Hofstæter, Vienna, 1778, 8vo.: in addition to which the different works of Winkelmann may be consulted.

In our own language the works more particularly useful for reference are:—A Letter on Poetry, Painting, and Sculpture, by H. King, London, 1768, 8vo. Collection of Greek, Etruscan, and Roman Antiquities, from the Hamilton Cabinet, Naples, 1766, folio, which work contains a paper on Expression in Painting and Sculpture, as well as an Historical Summary on the State of Sculpture among the Greeks.

The following books treat of certain monuments of antique sculpture in particular:—Callistratus, *Ἐκφρασεις*, sive Descriptio Statuarum, found among the works of Philostrates. The Description of Greece, by Pausanias, and the 33d and 37th books of Pliny's Natural History. Several Mémoires of the Comte de Caylus on passages of Pliny relative to objects of art, are inserted in the 19th, 25th, and 32d vols. of Mémoires de l'Académie des Inscriptions et Belles Lettres. Edmundi Figrellii, De Statuis illustrium Romanorum, liber singularis, Holmiæ, 1656, 8vo. Joannes Henrici Schlemmii, De Imaginibus Veterum Atriensibus Prælim. et cubicularis Dissertatio, Jena, 1664, 4to. Frederici Mulleri, delineat lib. xi. quos molitus est de Statuis Romanorum et præcipuè de Natura Statuarum quibus præcisi Romani bene meritos honorabant, Giessæ, 1664, 4to. Joannis Nicolai, Diatribæ de Mercuriis et Hermis, Francofurti, 1701, 12mo. Chr. Gottfr. Barthii, De Imaginibus Veterum in Bibliothecis vel alibi positus, Hallæ, 1702, 4to. Jacobi Gronovii, De Imaginibus et Statuis principum Dissertatio, Ludg. Bat., 1706, 4to. J. Munchii, De Statuis Veterum

Romanorum Dissertatio, Hafniæ, 1714, 4to. F. G. Freytagii, De Statuis *Τετελεσμεναις* Veterum Dissertatio, Lip., 1713, 4to. Oratorum et Rhetorum Græcorum, quibus Statuæ honoris causa positæ fuerunt, decas, Lips., 1752, 8vo., by the same. G. G. Bærneri, De Statuis Achilleis Dissertatio, Lips., 1759, 4to.

With respect to sculpture, as practised by the moderns, the reader is referred to:—Cabinet des Singularités d'Architecture, Peinture, Sculpture, et Gravure, by F. Le Comte, Paris, 1699, 3 vols. 12mo. Catalogue historique du Cabinet de Sculpture Française de M. de la Live de July, Paris, 1764, 12mo. Monumens érigés en France à la Gloire de Louis XIV. précédés d'un Tableau du Progrès des Arts et des Sciences sur ce Règne, ainsi que d'une Description des Honneurs et des Monumens accordés aux grands Hommes, tant chez les Anciens que chez les Modernes, et suivis d'un Choix des principaux Projets qui ont été proposés pour placer la Statue du Roi, by M. Patte, Paris, 1765, fol., with fifty-seven plates. Antiquités Nationales, ou Recueil de Monumens pour servir à l'Histoire de l'Empire Français, tels que Tombeaux, Inscriptions, Statues, Vitraux, Frescoes, &c., tirés des Abbayes, Monastères, et Châteaux, by A. L. Millin, Paris, 1791, 5 vols. 4to. and fol., with plates.

A catalogue of ancient sculptors is to be found in the second edition of *De Pictura Veterum*, by Junius, Rot. 1694, fol., whilst the following treat of modern Italian sculptors:—*Vite de' più insigni Pittori e Scultori Ferraresi*, by G. Baruffaldi, Ferrara, 1705, 4to. *Notizie intorno alla Vita ed alle Opere de' Pittori, Scultori ed intagl. di Bassana*, by G. Verci, Bass. 1775, 8vo. *Catal. Istoriche de Pittori ed Scultori Ferraresi, e dell' loro Opere*, Ferrara, 1783, 2 vols. 8vo.

On modern Spanish sculptors, independently of the work by Bermudez, already quoted (see preceding article), we have:—*Vidas de los Pintores y Estatuarios eminentes Españoles*, by D. A. P. Velasco, London, 1742, 8vo., and, in French, Paris, 1749, 12mo. This forms the third part of the same author's *Museo Pittorici*, Madrid, 1725, fol.

On German sculptors:—J. C. Schumann, *Alcimedon, or Lives of the most celebrated German Sculptors and Engravers*, Dresden, 1684, 8vo. *History of the best Swiss Artists*, by J. C. Fussli, Zurich, 1780, 5 vols. 8vo. *Notices of sundry Artists of Frankfort, of the Life and Works of its Painters and Sculptors*, by Husgen, Frankfort, 1780, 8vo. Several papers on the same subject are likewise to be found in the *Journal of Arts of M. de Murr*, and in that of Meusel.

We conclude with the admirable practical remarks of Sir Joshua Reynolds. 'The sculptor,' says Sir Joshua, 'may be safely allowed to practise every means within the power of his art to produce a deception, provided this practice does not interfere with or destroy higher excellencies; on these conditions he will be forced, however loath, to acknowledge that the boundaries of his art have long been fixed, and that all endeavours will be vain that hope to pass beyond the best works which remain of ancient sculpture.'

'Imitation is the means, and not the end, of art; it is employed by the sculptor as the language

b which his ideas are presented to the mind of the spectator. Poetry and elocution of every sort make use of signs, but those signs are arbitrary and conventional. The sculptor employs the representation of the thing itself; but still as a means to a higher end—as a gradual ascent always advancing towards faultless form and perfect beauty. It may be thought at the first view that even this form, however perfectly represented, is to be valued and take its rank only for the sake of a still higher object, that of conveying sentiment and character, as they are exhibited by attitude, and expression of the passions. But we are sure, from experience, that the beauty of form alone, without the assistance of any other quality, makes of itself a great work, and justly claims our esteem and admiration. As a proof of the high value we set on the mere excellence of form, we may produce the greatest part of the works of Michel Angiolo, both in painting and sculpture; as well as most of the antique statues, which are justly esteemed in a very high degree, though no very marked or striking character or expression of any kind is represented. But, as a stronger instance that this excellence alone inspires sentiment, what artist ever looked at the Torso without feeling a warmth of enthusiasm, as from the highest efforts of poetry? Whence does this proceed? What is there in this fragment that produces this effect, but the perfection of this

science of abstract form? A mind elevated to the contemplation of excellence perceives in this defaced and shattered fragment, disjecta membra poetæ, the traces of superlative genius, the relics of a work on which succeeding ages can only gaze with inadequate admiration.

‘It may be said that this pleasure is reserved only to those who have spent their whole life in the study and contemplation of this art; but the truth is that all would feel its effects, if they could divest themselves of the expectation of deception, and look only for what it really is, a partial representation of nature. The only impediment of their judgment must then proceed from their being uncertain to what rank, or rather kind of excellence, it aspires; and to what sort of approbation it has a right. This state of darkness is, without doubt, irksome to every mind; but by attention to works of this kind the knowledge of what is aimed at comes of itself, without being taught, and almost without being perceived. The sculptor’s art is limited in comparison of others, but it has its variety and intricacy within its proper bounds. Its essence is correctness: and when to correct and perfect form is added the ornament of grace, dignity of character, and appropriate expression, as in the Apollo, the Venus, the Laocoon, the Moses of Michel Angiolo, and many others, this art may be said to have accomplished its purpose.’

SCUM, *n. s. & v. a.* Fr. *escume*; Ital. *schiuma*; Dan. and Goth. *skum*. That which rises to the top of any liquor; spume; froth; refuse: hence, in contempt, the lowest of the people: to clear off the scum.

The rest had several offices assigned;
Some to remove the *scum* as it did rise,
Others to bear the same away did mind,
And others it did use according to his kind.

Faerie Queene.

There flocked unto him all the *scum* of the Irish
out of all places, that ere long he had a mighty army.

Spenser.

Some forty gentlemen excepted, had we the very
scum of the world, such as their friends thought it
an exceeding good gain to be discharged of.

Raleigh's Essays.

The salt part of the water doth partly rise into a
scum on the top, and partly goeth into a sediment in
the bottom.

Bacon.

Gathered like *scum*, and settled to itself,
Self-fed and self-consumed.

Milton.

A second multitude
Severing each kind, and *scummed* the bullion dross.

Id.

I told thee what would come
Of all thy vapouring, base *scum*.

Hudioras.

The Scythian and Egyptian *scum*
Had almost ruined Rome.

Roscommon.

Away, ye *scum*,
That still rise upmost when the nation boils.

Dryden.

Hear, ye sullen powers below;
Hear, ye taskers of the dead!
You that boiling cauldrons blow,
You that *scum* the molten lead!

Dryden and Lee's Ædipus.

What corns swim upon the top of the brine, *scum*
off.

Mortimer's Husbandry.

The great and innocent are insulted by the *scum*
and refuse of the people.

Addison's Freeholder.

SCUPPER HOLES, *n. s.* Belg. *schoepen*, to draw off. In a ship, small holes on the deck, through which water is carried into the sea. The leathers over those holes are called scupper leathers; and the nails with which they are fastened, scupper nails.

The blood at *scupper holes* run out. *Ward.*

SCUPPERS, in a ship, are certain channels cut through the water-ways and sides of a ship, at proper distances, and lined with plated lead, to carry the water off from the deck into the sea. The scuppers of the lower deck of a ship of war are usually furnished with a leathern pipe, called the scupper hose, which hangs downward from the mouth or opening of the scupper. The intent of this is to prevent the water from entering when the ship inclines under a weight of sail.

SCURF, *n. s.* Sav. *scurf*; Goth and Swed. *skorf*; Dan. *skurff*; Belg. *schorfl*. A kind of dry milinary scab; a soil or stain adhering to the skin or surface.

Her crafty head was altogether bald,
And, as in hate of honourable eld,
Was overgrown with *scurf* and filthy scald.

Faerie Queene.

There stood a hill, whose grisly top
Shone with a glossy *scurf*.

Milton.

Then are they happy, when by length of time
The *scurf* is worn away of each committed crime,
No speck is left.

Dryden.

Upon throwing in a stone, the water boils : and at the same time are seen little fleaks of scurf rising up.
Addison.

The virtue of his hands

Was lost among Pactolus' sands,
Against whose torrent while he swims,
The golden scurf peels off his limbs. *Swift.*

SCUR'RIL, *adj.* } Lat. *scurrilis*. Low ;
SCUR'RILITY, *n. s.* } mean ; grossly oppro-
SCUR'RILIOUS, *adj.* } brious : the more com-
SCUR'RILIOUSLY, *adv.* } mon adjective is scur-
rilous, of the same signification ; the adverb and
noun substantive correspond.

Scurrilous and more than satirical immodesty.
Hooker.

With him Patroclus,
Upon a lazy bed, the live-long-day
Breaks scurril jests.

Shakspeare. Troilus and Cressida.

Good master Holofernes, purge ; so it shall please
you to abrogate scurrility. *Shakspeare.*

Let him approach singing. Forewarn him that
he use no scurrilous words in's tunes.

Id. Winter's Tale.

Nothing conduces more to letters than to examine
the writings of the ancients, provided the plagues of
judging and pronouncing against them be away ;
such as envy, bitterness, precipitation, impudence,
and scurril scoffing. *Ben Jonson.*

It is barbarous incivility, scurrilously to sport with
that which others count religion. *Tillotson.*

Thou movest me more by barely naming him,
Than all thy foul unmannered scurril taunts.

Dryden.

Banish scurrility and profaneness, and restrain
the licentious insolence of poets. *Id.*

Such men there are, who have written scurrilously
against me, without any provocation. *Id.*

How often is a person, whose intentions are to do
good by the works he publishes, treated in as scur-
rilous a manner as if he were an enemy to mankind !

Addison's Freeholder.

Their characters have been often treated with the
utmost barbarity and injustice by scurrilous and en-
raged orators. *Swift.*

SCURVILY, *adv.* From SCURVY. Vilely ;
basely ; coarsely. It is seldom used but in a
ludicrous sense.

Look i' your glass now,
And see how scurvily that countenance shews :
You would be loth to own it.

Ben Jonson's Catiline.

This alters the whole] complexion of an action,
that would otherwise look but very scurvily, and
makes it perfect. *South.*

The clergy were never more learned, or so scurvily
treated. *Swift.*

SCURVY, *n. s. & adj.* From SCURF. A well-
known disease of low countries and of seamen,
see below. This word was, I believe, originally
an adjective, says Dr. Johnson ; and it signifies
as such scabbed ; diseased with scurvy ; vile ;
bad ; low ; offensive.

Whatsoever man be scurvy or scabbed.

Lev. xxi. 20.

I know him for a man divine and holy ;
Not scurvy, nor a temporary meddler. *Shakspeare.*

He spoke scurvy and provoking terms
Against your honour. *Id.*

The scurvy is a distemper of the inhabitants of
cold countries, and amongst those such as inhabit
marshy, fat, low, moist soils, near stagnating water,
fresh or salt ; invading chiefly in the winter such as

are sedentary, or live upon salted or smoked flesh
and fish, or quantities of unfermented farinaceous
vegetables, and drink bad water. *Arbuthnot.*

A crane, which is but scurvy meat, lays but two
eggs. *Cheyne.*

It would be convenient to prevent the excess of
drink, with that scurvy custom of taking tobacco.
Swift.

SCURVY, in medicine. See MEDICINE.

SCURVY-GRASS, common officinal, or coch-
learia officinalis, grows upon rocks on the sea-
coast, and on the Highland mountains, abund-
antly. It has an acrid bitter, and acid taste,
and is highly recommended for the scurvy. As
it abounds with acid salts, there can be no doubt
but that it is a great resister of putrefaction.
The best way of taking it is raw in a sallad. It
is also diuretic, and useful in dropsies. The
Highlanders esteem it as a good stomachic.

SCUSES. For excuses. A mere barbarism
of Shakspeare's.

I shifted him away,
And laid good scuses on your ecstasy.

Shakspeare. Othello.

SCUT, *n. s.* Isl. *skott* ; Goth. *skot*. The tail
of certain animals whose tails are very short.

In the hare it is aversely seated, and in its dis-
tension inclines unto the coxix or scut.

Brown's Vulgar Errors.

He fled to earth, but first it cost him dear ;
He left his scut behind, and half an ear. *Swift.*

SCUTAGE, *n. s.* [Sax. *scutagium*, scildpe-
ning] was a tax or contribution raised by those
that held lands by knights' service, towards fur-
nishing the king's army with one, two, or three
merks for every knight's fee. Henry III., for
his voyage to the Holy Land, had a tenth granted
by the clergy, and scutage, three merks of every
knight's fee by the laity. This was also levied
by Henry II., Richard I., and king John.

SCUTARI, a lake of Albania, Greece, situated
about fifteen miles from the coast. It is about
sixteen miles in length, and seven in breadth,
containing several small islands. The Moracca
enters its northern extremity, and issues from its
south-eastern, where it is known as the Bojane.

SCUTARI, or ISKENDERJE, a large fortified town
of Albania, on the Bojane, at the south-east ex-
tremity of the lake of Scutari. Its highest point
is crowned by a castle. The town consists of
four quarters ; and has several mosques and
Greek churches, being the see of a Greek bishop.
The neighbouring plain is one of the richest in
Albania in vines and olive plantations. Scutari
is the capital of a pachalic, one of the most con-
siderable in Albania. Population 12,000. Fifty
miles east by south of Cattaro, and 448 west of
Constantinople.

SCUTARI, a large town on the Bosphorus, im-
mediately opposite to Constantinople. Its site
is most beautiful, on the slope of several hills,
and thickly intermingled with trees. The strait
appears here like a lake, planted round with
cities : and the minarets of Scutari command the
most brilliant views of Constantinople. It carries
on a considerable trade as a rendezvous for car-
avans from the interior of Asia. Population
30,000.

SCUTCH'ON, *n. s.* Ital. *scuccione*, from

Lat. *scutum*. The shield represented in heraldry; the ensigns armorial of a family. See ESCUTHEON.

And thereto had she that *scutcheon* of her desires,
supported by certain badly diligent ministers.

Sidney.

Your *scutcheons*, and your signs of conquest, shall
Hang in what place you please.

Shakspeare. Antony and Cleopatra.

Honour is a mere *scutcheon*. *Id. Henry IV.*

The chiefs about their necks the *scutcheons* wore,
With orient pearls and jewels powdered o'er.

Dryden.

SCUTE, a French gold coin of 3s. 4d. in the reign of king Henry V. Catherine queen of England had an assurance made her of sundry castles, manors, lands, &c., valued at the sum of 40,000 scutes, every two whereof were worth a noble.

SCUTELLARIA, skull-cap, in botany, a genus of the gymnospermia order, and didynamia class of plants; natural order fortieth, personata: CAL. short, tubulated, has the mouth entire, and close after flowering. There are two species, natives of Britain, viz.

1. *S. galericulata*, blue skull-cap, or hooded willow-herb. The stems are weak, branched, and above a foot high: the leaves are heart-shaped, narrow-pointed, on short foot-stalks, and scalloped; the flowers are blue, in pairs, on pedicles from the axæ of the leaves, and pendulous. It grows on the banks of rivers and lakes, is bitter, and has a garlic smell.

2. *S. minor*, little red skull-cap, or willow-herb. The stalks are about eight inches high; the leaves are heart-shaped, oval; the flowers are purple. It grows in fens, and on the sides of lakes.

SCUTELLATED, *adj.* Lat. *scutella*. Divided into small surfaces.

It seems part of the *scutellated* bone of a sturgeon, being flat, of a porous or cellular constitution.

Woodward.

SCUTTLE, *n. s.* Lat. *scutella*; Celt. *scutell*. Ainsworth. A wide shallow basket, so named from a dish or platter which it resembles in form.

A *scuttle* or skrein to rid soil fro' the corn.

Tusser.

The earth and stones they are fain to carry from
under their feet in *scuttles* and baskets.

Hakewill on Providence.

To the hole in the door have a small *scuttle*, to
keep in what mice are there. *Mortimer's Husbandry.*

SCUTTLE, *n. s. & v. n.* From SCUD or SCOUT. A quick pace; a short run; a pace of affected precipitation: to run in this manner.

She went with an easy *scuttle* out of the shop.

Spectator.

The old fellow *scuttled* out of the room.

Arbuthnot.

SCUTTLES, in a ship, are square holes cut in the deck, big enough to let down a man, and which serve to let the people down into any room below, or from one deck to another.

SCUTUM, in antiquity, the name of a shield with which the Roman soldiers were formerly armed. The scutum differed from the clypeus, inasmuch that the former was oval and the latter round. That which was used among the

Grecians was sometimes round, at others square, and not unfrequently oval. The scutum, or buckler, which the Lacedæmonians used, was so large that the dead and wounded were carried on it.

SCYLAX, a celebrated mathematician and geographer of Caria, who flourished in the reign of Darius Hystaspis, about 558 B. C. Darius sent him to make discoveries in the east, and, after a journey of thirty months, he visited Egypt. The best edition of his Periplus is that of Gronovius, in 4to., Lug. Bat. 1697. Some have attributed to him the invention of geographical tables. We have under his name a geographical work published by Hoeschelius; but it is written by a much later author, and is perhaps an abridgment of Scylax's Geography.

SCYLLA, in the mythology, a daughter of Nisus, king of Megara, who fell in love with Minos while he was besieging her father's capital, and offered to make him master of it, if he would marry her. Minos promising this, she cut off a golden hair of her father's head, while he was asleep, on which the fate of Megara depended. Minos took the city, but treated her with the contempt her treason merited: on which she threw herself into the sea, and was turned into a lark, and her father into a hawk.

SCYLLA, a daughter of Typhon, or Phorcys, who was beloved by the sea-god Glaucus, but rejected his addresses. Glaucus applied to Circe to use her spells, and turn Scylla's affection to him; but Circe, falling in love with Glaucus herself, employed her most poisonous plants to ruin her rival; and, pouring the juice of them into a fountain where Scylla bathed, all the under part of her body was changed into monsters, which never ceased barking like dogs. On this Scylla threw herself into the sea, between Italy and Sicily, where she was metamorphosed into the rocks opposite to Charybdis, that still bear her name.—Homer. Od. xii. 85. Ovid. Met. xiv. 66, &c.

SCYLLA, in ancient geography, a rock in the Fretum Siculum, near the coast of Italy, dangerous to shipping, opposite to Charybdis, a whirlpool on the coast of Sicily.

SCYLLA AND CHARYBDIS, according to the fables of the poets, were two sea-monsters, continually on the watch to destroy unfortunate mariners; the one situated on the right, and the other on the left extremity of the strait of Messina, where Sicily fronts Italy. Thus Virgil describes them:—

Dextrum Scylla latus, lævum implacata Charybdis
Obsidet, atque imo baratiri ter gurgite vastos
Sorbet in abruptum fluctus, rursusque sub auras
Erigit alternos, et sidera verberat unda:
At Scyllam cœcis cohibet spelunca latebris
Ora exertantem, et naves in saxa trahentem.
Prima hominis facies et pulchro pectore virgo
Pube tenus; postrema immani corpore pristis
Delphinum caudas utero commissa luperum.

Æneid. lib. iii.

Far on the right her dogs foul Scylla hides;
Charybdis roaring on the left presides,
And in her greedy whirlpool sucks the tides,
Then spouts them from below; with fury driven
The waves mount up, and wash the face of heaven

But Scylla from her den, with open jaws,
 The sinking vessel in her eddy draws,
 Then dashes on the rocks: a human face,
 And virgin bosom, hide her tail's disgrace,
 Her parts obscene below the waves descend,
 With dogs enclosed, and in a dolphin end. *Dryden.*

The description of Virgil, above cited, differs from that of Homer only in placing a deep gulf below. Strabo, Isidorus, Tzetzes, Hesychius, Didymus, Eustathius, &c., concur in the same description. The abbé Spallanzani thus describes Scylla in his time: 'It is a lofty rock, twelve miles from Messina, which rises almost perpendicularly from the sea on the shore of Calabria, and beyond which is the small city of the same name. Though there was scarcely any wind, I began to hear, two miles before I came to the rock, a murmur and noise like a confused barking of dogs, and on a nearer approach readily discovered the cause. This rock, in its lower parts, contains a number of caverns, one of the largest of which is called by the people there *Dragara*. The waves, when in the least agitated, rushing into these caverns, break, dash, throw up frothy bubbles, and thus occasion these various and multiplied sounds. I then perceived with how much truth and resemblance of nature Homer and Virgil, in their personifications of Scylla, had portrayed this scene, by describing the monster they drew as lurking in the darkness of a vast cavern, surrounded by ravenous mastiffs, together with wolves, to increase the horror.

The same author thus describes Charybdis: 'Charybdis is distant from the shore of Messina about 750 feet, and is called by the people of the country *Calofaro*, not from the agitation of the waves, as some have supposed, but from *καλος* and *φαρος*; that is, the beautiful tower, from the light-house erected near it for the guidance of vessels. The phenomenon of the *Calofaro* is observable when the current is descending; for when the current sets in from the north, the pilots call it the descending rema or current; and, when it runs from the south, the ascending rema. The current ascends or descends at the rising or setting of the moon, and continues for six hours. In the interval between each ascent or descent there is a calm which lasts at least a quarter of an hour, but not longer than an hour. Afterwards, at the rising or setting of the moon, the current enters from the north, making various angles of incidence with the shore, and at length reaches the *Calofaro*. This delay sometimes continues two hours; sometimes it immediately falls into the *Calofaro*; and then experience has taught that it is a certain token of bad weather.'

The saying which became proverbial among the ancients, 'Incidit in Scyllam, qui vult vitare Charybdim; he who endeavours to avoid Charybdis, dashes upon Scylla,' is still in a great measure true. If a ship be extricated from the fury of Charybdis, and carried by a strong southerly wind along the strait towards the northern entrance, it will indeed pass out safely; but, should it meet with a wind in a nearly opposite direction, it would become the sport of both these winds, and, unable to advance or recede, be driven in a middle course between their two directions, that is to say, full upon the rock

of Scylla, if it be not immediately assisted by the pilots.

The following is an account of these bugbears of antiquity, given by captain Smyth, an intelligent British seaman: 'The flights of poetry,' observes our author, 'can seldom bear to be shackled by homely truth; and if we are to receive the fine imagery that places the summit of this rock (Scylla) in clouds, brooding eternal mists and tempests; that represents it as inaccessible, even to a man provided with twenty hands and twenty feet, and immerses its base among ravenous sea-dogs; why not also receive the whole circle of mythological dogmas of Homer, who, though so frequently dragged forth as an authority in history, theology, surgery, and geography, ought in justice to be read only as a poet? In the writings of so exquisite a bard, we must not expect to find all his representations strictly confined to a mere accurate narration of facts. Moderns of intelligence, in visiting this spot, have gratified their imaginations, already heated by such descriptions as the escape of the Argonauts, and the disasters of Ulysses, with fancying it the scourge of seamen, and that, in a gale, its caverns 'roar like dogs;' but I, as a sailor, never perceived any difference between the effect of the surges here, and on any other coast; yet I have frequently watched it closely in bad weather. It is now, as I presume it ever was, a common rock, of bold approach, a little worn at its base, and surmounted by a castle, with a sandy bay on each side. The one on the south side is memorable for the disaster that happened there, during the dreadful earthquake of 1783, when an overwhelming wave (supposed to have been occasioned by the fall of part of a promontory into the sea) rushed up the beach, and, in its retreat, bore away with it upwards of 2000 people. Outside the tongue of land, or Braccio di St. Rainierè, that forms the harbour of Messina, lies the *Salofaro*, or celebrated vortex of Charybdis, which has, with more reason than Scylla, been clothed with terrors by the writers of antiquity. To the undecked boats of the Rhegians, Locrians, Zancleans, and Greeks, it must have been formidable; for, even in the present day, small craft are sometimes endangered by it; and I have seen several men-of-war, and even a seventy-four-gun ship, whirled round on its surface; but, by using due caution, there is generally very little danger or inconvenience to be apprehended. It appears to be an agitated water, of from seventy to ninety fathoms in depth, circling in quick eddies. It is owing, probably, to the meeting of the harbour, and lateral currents, with the main one, the latter being forced over, in this direction, by the opposite point of Pezzo. This agrees, in some measure, with the relation of Thucydides, who calls it a violent reciprocation of the Tyrrhene and Sicilian Seas; and he is the only writer or remote antiquity I remember to have read who has assigned this danger its true situation, and not exaggerated its effect. Many wonderful stories are told respecting this vortex, particularly some, said to have been related by the celebrated diver Colas, who lost his life here.' See also our article *MEDITERRANEAN*.

SYCROS, in ancient geography, an island in the Ægean Sea, at the distance of about twenty-eight miles north-east from Eubœa. Fifty miles in circumference. It was originally in the possession of the Pelasgians and Carians. Achilles retired thither to avoid going to the Trojan war, and became father of Neoptolemus by Deidamia, the daughter of king Lycomedes. Scyros was conquered by the Athenians under Cimon. It was very rocky and barren. It is now called Seiro.

SCYTALA LACONICA, in antiquity, a stratagem of the Lacedemonians, for the secret writing of letters, so that, if they should chance to be intercepted, nobody might be able to read them.—To this end they had two wooden cylinders, perfectly alike and equal; one of which was kept in the city, the other by the person to whom the letter was directed. A skin of very thin parchment was wrapped round the roller, in which the letter was written; which done, it was taken off, and sent away to the party, who, upon putting it in the same manner upon his roller, found the lines and words in the same order as when they were first written. This expedient they set a very high value on; though, in truth, artless and simple enough.

SCYTALIA, in botany, a genus of the monogynia order, and octandria class of plants: CAL. very short, monophyllous, and somewhat quinque-dentated: COR. pentapetalous; filaments hairy at the base; berry unilocular: SEED one of a soft pulpy consistence. There is only one species, viz.

S. sinensis, a native of China and the East Indies.

SCYTHES, in fabulous history, the son of Jupiter and Tellus, who was half man half serpent. According to Diodorus he became king of the country, called from him Scythia.

SCYTHIA, an ancient name for the northern parts of Asia, now called Tartary, and also for some of the north-east parts of Europe. This vast territory, which extends from the Ister or Danube, the boundary of the Celts, that is, from about 25°, to nearly 100° long. E., was divided into Scythia in Europe, and Scythia in Asia, including the two Sarmatias, or Sauromatias. Sarmatia was divided from the European Scythia by the Don or Tanais, which falls into the Palus Meotis; and from the Asiatic by the Rha, now the Wolga, which runs into the Caspian Sea.

SCYTHIA ASIATICA, the Asiatic Scythia, comprehended, in general, Tartary, and Russia in Asia. As for Sarmatia, it contained Albania, Iberia, and Colchis; which makes now the Circassian Tartary, and the province of Georgia.

SCYTHIA EUROPEA, Scythia in Europe, reached towards the south-west, to the Po and the Alps, by which it was divided from Cæto-Gallia. It was bounded on the south by the Ister or Danube and the Euxine Sea. Its northern limits have been supposed to stretch to the spring-heads of the Boristhenes or Nieper, and the Rha or Wolga, and so to those of the Tanais. The ancients divided this country into Scythia Arimaspea, which lay east, joining to Scythia in Asia; and Sarmatia Europeana on the west. In Scythia, properly so called,

were the Arimaspi on the north, the Getæ or Dacians along the Danube on the south, and the Neuri between these two: so that it contained European Russia, and the Lesser Crim Tartary on the east, and on the west Lithuania, Poland, part of Hungary, Transylvania, Walachia, Bulgaria, and Moldavia. The ancient geographers divided the west part of Sweden and Norway from Northern Germany, by the Mare Sarmaticum or Scythicum, which they supposed ran up into the Northern Ocean, and, dividing Lapland into two parts, formed the western part of Sweden, with Norway, into one island, and Finland into another; supposing this also to be cut off from the continent by the gulf of that name.

SCYTHIANS, the natives of Scythia. Although the ancient Scythians were celebrated as a warlike people, yet their history is too uncertain and obscure to enable us to give any detail which would prove interesting. See the very opposite accounts given of the ancient Scythians, by Herodotus and Justin under SCULPTURE. Hist. Mr. Pinkerton, in a dissertation on their origin, endeavours to prove that they were the most ancient of nations; and he assigns for the place of their first habitation the country known by the name of Persia. From Persia, he thinks, they proceeded in numerous hordes westward, surrounded the Euxine, peopled Germany, Italy, Gaul, the countries bordering on the Baltic, with part of Britain and Ireland. That the Scythians were of Asiatic origin cannot, we think, be questioned; and, as Persia was peopled at a very early period, it may not improbably have been their parent country; but when our author contends that their empire had subsisted for more than 1500 years before Ninus the founder of the Assyrian monarchy, and that it extended from Egypt to the Ganges, and from the Persian Gulf and Indian Sea to the Caspian, we cannot help thinking that his prejudices against the Celts, and his desire to do honor to his favorite Goths, have made him advance a paradox inconsistent with the most authentic records of antiquity. His dissertation, however, is ingenious, and replete with a variety of curious learning.

SCYTHROPS, a generic name given by Mr. Latham to a bird of which hitherto but one species has been observed. It is about the size of a crow, and two feet three inches in length. The bill is large, convex, furrowed on the sides, and bent at the tip; the nostrils are placed at the base of it, and the tongue is cloven at the end. The general color of the plumage is a brownish ash, but the tip of each feather of the back, wings, and tail, is black. The tail has each feather banded with black at the end, and the tip itself white; but the inner webs of the feather are marked with black and white bands. The toes are placed two forwards and two backwards, as in the parrot genus. This curious bird is a native of New Holland.

SDEIGN, *v. a.* Ital. *sdegnare*. Used by Spenser and Milton for disdain.

They now, puft up with *sdeignful* insolence,
Despise the brood of blessed sapience. *Spense.*

Lifted up so high,
I sdeigned subjection. *Milton.*

SEA, *n. s.*
 SEA'BEAT, *adj.*
 SEA'BOAT, *n. s.*
 SEA'BORN, *adj.*
 SEA'BOY, *n. s.*
 SEA'BRFACH,
 SEA'BREEZE,
 SEA'EUILT, *adj.*
 SEACAB'BAGE, *n. s.*
 SEA'CALF,
 SEA'CAP,
 SEA'CHART,
 SEA'COAL,
 SEA'COAST,
 SEACOM'PASS,
 SEA'COW,
 SEA'DOG,
 SEA'FARER,
 SEA'FARING, *adj.*
 SEA'FIGHT, *n. s.*
 SEA'FOWL,
 SEA'GIRT, *adj.*
 SEA'GREEN, *n. s.*
 SEA'GULL,
 SEAHEDGE'POG,
 SEAHOLLY,

SEAHOLM',
 SEAHORSE',
 SEA'MAID,
 SEA'MAN,
 SEA'MARK,
 SEA'MEW,
 SEAMON'STER,
 SEA'NYMPH,
 SEA'OOZE,
 SEA'PIECE,
 SEA'POOL,
 SEA'PORT,
 SEA'RISK,
 SEA'ROOM,
 SEASER'VICE,
 SEA'SHARK,
 SEA'SHELL,
 SEASHORE',
 SEA'SICK,
 SEASIDE,
 SEASUR'GEON,
 SEASURROUND'ED,
 SEA'TERM,
 SEA'WATER,
 SEA'WEED.

Sax. *ræ*; Goth. *sæ*; Belg. *zee*; Teut. *see*. The ocean; the water of the earth as opposed to the land; any collection of waters; a lake; a large quantity of any fluid; any thing rough or tempestuous: 'half-seas-over' is half-drunk. None of the compounds appear to require any further explanation than the extracts in which they occur will supply.

He made the sea, and all that is therein.

Erodus xx. 11.

Their camels were without number, as the sand by the seaside.

Judges vii. 12.

Seamonsers gave suck to their young.

Lamentations iv. 3.

By the sea of Galilee.

Matthew iv. 18.

The sovereign of the seas he blames in vain,
 That once seabeat will to sea again.

Spenser's Pastorals.

The venturous mariner that way,
 Learning his ship from those white rocks to save,

Which all along the southern seacoast lay,
 For safety's sake that same his seamark made,
 And named it Albion.

Faerie Queene.

Those white rocks,
 Which all along the southern seacoast lay,
 Threatening unheedy wreck and rash decay,
 He for his safety's sake his seamark made,
 And named it Albion.

Id.

I heard it wished, that all that land were a sea-pool.

Spenser.

Barbarossa was not able to come on shore, for that he was, as they said, seasick, and troubled with an ague.

Knolles.

Will all great Neptune's ocean wash this blood
 Clean from my hand? No, this my hand will rather
 Thy multitudinous *sga* incarnadine,
 Making the green one red.

Shakespeare. Macbeth.

Canst thou, O partial sleep! give thy repose
 To the wet seaboy in an hour so rude,
 And in the calmest and the stillest night
 Deny it to a king?

Shakespeare.

My wife fastened him unto a small spare mast,
 Such as seafaring men provide for storms.

Id.

I know your favour well,
 Though now you have no seacap on your head.

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We'll have a posset soon at the latter end of a sea-coal fire.

Id.

Certain stars shot from their spheres,

To hear the seamaids' musick.

Id.

Though you do see me weaponed,

Here is my journey's end, here is my butt,

The very seamark of my utmost sail.

Id. Othello.

Witches mummy, maw and gulf

Of the ravening salt seashark.

Shakespeare.

She began to be much seasick, extremity of weather continuing.

Id.

The needle in the seacompass still moving but to the north point only, with moveor immotus, notified the respective constancy of the gentleman to one only.

Camden's Remains.

Seafights have been often final to the war; but this is when princes set up their rest upon the battles.

Bacon.

Seagulls, when they flock together from the sea towards the shores, foreshow rain and wind.

Id. Natural History.

Seacoal lasts longer than charcoal.

Bacon.

They were executed at divers places upon the seacoast, for seemarks or lighthouses, to teach Perkin's people to avoid the coast.

Id. Henry VII.

There is searoom enough for both nations, without offending one another.

Id. Advice to Villiers.

By digging of pits in the seashore, he did frustrate the laborious works of the enemies, which had turned the seawater upon the wells of Alexandria.

Id. Natural History.

So do the winds and thunders cleanse the air,
 So working seas settle and purge the wine.

Davies.

The rivers run into the sea.

Carew.

They stiffly refused to vail their bonnets by the summons of those towns, which is reckoned intolerable contempt by the better enabled seafarers.

Id.

The seahedgehog is inclosed in a round shell, fashioned as a loaf of bread, wrought and pinched, and guarded by an outer skin full of prickles, as the land urchin.

Id.

Cornwall bringeth forth greater store of seaholm and samphire than any other county.

Id.

That sea of blood, which hath in Ireland been barbarously shed, is enough to drown in eternal infamy and misery the malicious author and instigator of its effusion.

King Charles.

This pulmonique indisposition of the air is very much heightened, where a great quantity of seacoal is burnt.

Harvey.

She, looking out,

Beholds the fleet, and hears the seamen shout.

Denham.

Amphibious between sea and land,

The river horse.

Milton.

To sorrow abandoned, but worse felt within,
 And in a troubled sea of passion tossed.

Id.

Neptune, besides the sway

Of every salt flood and each ebbing stream,

Took in by lot, 'twixt high and nether Jove,

Imperial rule of all the seagirt isles.

Id.

An island salt and bare,

The haunt of seals, and orcks, and seamews clang.

Id.

Where luxury lately reigned, seamonsers whelp.

Id.

Like Neptune and his seaborne niece, shall be
 The shining glories of the land and sea.

Waller.

The bigger whale like some huge carrack lay,
 Which watheth searoom with her foes to play.

Id.

But like a rock unmoved, a rock that braves
 The raging tempest and the rising waves,

Propped on himself he stands: his solid sides
Wash off the *seaweeds*, and the sounding tides.

Dryden.

All these in order march, and marching sing
The warlike actions of their *seaborn* king. *Id.*
Borne each by other in a distant line,
The *seabuilt* forts in dreadful order move. *Id.*
Seahorses floundering in the slimy mud,
Tossed up their heads, and dashed the ooze about
'em. *Id.*

Aeneas ordered

A stately tomb, whose top a trumpet bore,
A soldier's falchion, and a *seaman's* oar;
Thus was his friend interred. *Id.*

The fault of others sway

He set as *seamarks* for himself to shun. *Id.*
That *seashore* where no more world is found,
But foaming billows breaking on the ground. *Id.*

In love's voyage, nothing can offend;

Women are never *seasick*. *Id. Juvenal.*
To an impetuous woman, tempests and *seabreeches*
are nothing. *L'Estrange.*

If our sense of hearing were a thousand times
quicker than it is, we should, in the quietest retire-
ment, be less able to sleep than in the middle of a
seafight. *Locke.*

White, red, yellow, blue, with their mixtures, as
green, scarlet, purple, and *seagreen*, come in by the
eyes. *Id.*

Seals live at land and at *sea*, and porpuses have
the warm blood and intrails of a hog, not to mention
mermaids or *seamen*. *Id.*

To say a man has a clear idea of any quantity,
without knowing how great it is, is as reasonable as
to say he has the positive idea of the number of the
sands on the *seashore*. *Id.*

Hedges, in most places, would be of great ad-
vantage to shelter the grass from the *seabreeze*.

Mortimer.

Upon the *seacoast* are many parcels of land, that
would pay well for the taking in. *Id. Husbandry.*
Bitterns, herons, and *seagulls*, are great enemies
to fish. *Id.*

Seashells are great improvers of sour or cold land.

Mortimer.

All *seaooze*, or oozy mud, and the mud of rivets,
are of great advantage to all sorts of land. *Id.*

The *seacalf*, or seal, so called from the noise he
makes like a calf: his head comparatively not big,
shaped rather like an otter's, with teeth like a dog's,
and mustaches like those of a cat: his body long,
and all over hairy: his fore feet, with fingers clawed,
but not divided, yet fit for going; his hinder feet,
more properly fins, and fitter for swimming, being
an amphibious animal. *Grew's Musæum.*

Fournier gives an account of an earthquake in
Peru, that reached three hundred leagues along the
seashore. *Burnet.*

The whole magistracy was pretty well disguised
before I gave 'em the slip: our friend the alderman
was *half seas over* before the bonfire was out.

Spectator.

Had they applied themselves to the increase of
their strength by *sea*, they might have had the great-
est fleet, and the most *seamen*, of any state in Europe.

Addison.

Painters often employ their pencils upon *seapieces*.

Id.

Small fragments of shells, broken by storms on
some shores, are used for manuring of *sea* land.

Woodward.

Part of a large tooth, round and tapering: a tusk
of the morse, or waltrons, called by some the *sea-
horse*. *Id.*

They put to *sea* with a fleet of three hundred sail.

Arbuthnot.

Shipwrecks were occasioned by their ships being
bad *seaboats*, and themselves but indifferent *seamen*.
Id.

It was death to divert the ships of *seafaring* people,
against their will, to other uses than they were ap-
pointed. *Id.*

This fleet they recruited with two hundred sail,
whereof they lost ninety-three in a *seafight*.

Id. on Coins.

He was so great an encourager of commerce that
he charged himself with all the *searisks* of such
vessels as carried corn to Rome in the winter.

Arbuthnot.

My design was to help the *seasurgeon*.

Wiseman's Surgery.

The bills of curlews, and many other *seafowl*, are
very long, to enable them to hunt for the worms.

Derham.

The *sea* could not be much narrower than it is,
without a great loss to the world. *Bentley.*

Fierce *seadogs* devour the mangled friends.

Roscommon.

So when the first bold vessel dared the *seas*,
High on the stern the Thracian raised his strain,
While Argo saw her kindred trees

Descend from Pelion to the main. *Pope.*

Darkness covered o'er

The face of things: along the *seabeat* shore

Satiate we slept. *Id. Odysey.*

A wandering merchant, he frequents the main,

Some mean *seafarer* in pursuit of gain;

Studios of freight, in naval trade well skilled,

But dreads the 'athletick labours of the field. *Pope.*

A length of ocean and unbounded sky,

Which scarce the *seafowl* in a year o'er-fly. *Id.*

Upon his urn reclined,

His *seagreen* mantle waving in the wind,

The god appeared. *Id.*

Telemachus, the blooming heir

Of *seagirt* Ithaca, demands my care:

'Tis mine to form his green unpractised years

In sage debates. *Id.*

The chough, the *seamew*, the loquacious crow,

Scream aloft. *Id. Odysey.*

There disembarking on the green *seaside*,

We land our cattle and the spoil divide. *Pope.*

To *seasurrounded* realms the gods assign

Small tract of fertile lawn, the least to mine. *Id.*

I agree with you in your censure of the *seaterms* in

Dryden's Virgil, because no terms of art or cant

words suit the majesty of epick poetry. *Id.*

You were pressed for the *seaservice* and got off with
much ado. *Swift's Directions to Servants.*

Weary and *seasick*, when in these confined;

Now, for thy safety, cares distract my mind; *Swift.*

A *seafowl* properly represents the passage of a

deity over the *seas*. *Broome.*

Seawater has many gross, rough, and earthy par-
ticles in it, as appears from its saltness; whereas fresh

water is more pure and unmixt. *Id.*

Virgil, after Homer's example, gives us a trans-
formation of *Aeneas's* ships into *seanymphs*. *Id.*

The situations of the parts of the earth are better
learned by a map or *seachart*, than reading the de-
scription. *Watts.*

Seamen, through dismal storms, are wont

To pass the oyster-breeding Hellespont. *Evelyn.*

The *seacow* is of the cetaceous kind. It grows to

fifteen feet long, and to seven or eight in circum-
ference: its head is like that of a hog, but longer

and more cylindrical: its eyes are small, and it has

no external ears, but only two little apertures. Its

lips are thick, and it has two long tusks standing

out. It has two fins, which stand forward on the breast like hands, whence the Spaniards called it manatee. The female has two round breasts placed between the pectoral fins. The skin is very thick and hard, and not scaly, but hairy. *Hill's Mat. Med.*

The species are *seaholly*, or *eryngo*. Common *eryngo*. The roots of the first are candied, and sent to London for medicinal use, being the true *eryngo*.
Id.

SEA, in a strict sense, signifies a large portion of water almost surrounded by land, as the Baltic and Mediterranean seas; but it is frequently used for that vast body of water which encompasses the whole earth.

What proportion the superficies of the sea bears to that of the land cannot be ascertained with exactness. Buffon has supposed that the surface of our globe is equally divided between land and water, and has accordingly calculated the superficies of the sea to be 85,490,506 square miles. But it is now well known that the ocean covers more than the half of the earth's surface. The French naturalist believed in the existence of a vast southern continent, which captain Cook has shown to be visionary. It was this circumstance which misled him. The sea occupies, according to Le Brun and the best modern writers, about six-tenths of the earth's surface. See our articles OCEAN and GEOGRAPHY. To ascertain the depth of the sea is still more difficult than its superficies, both on account of the numerous experiments which it would be necessary to make, and the want of proper instruments for that purpose. The sea is often found unfathomable; and, though several methods have been contrived to average its depth, none of them has completely answered the purpose. We know in general that the depth of the sea increases gradually as we leave the shore; but, if this continued beyond a certain distance, the depth in the middle of the ocean would be prodigious. Indeed, the numerous islands every where scattered in the sea demonstrate the contrary, by showing us that the bottom of the water is unequal like the land, and that, so far from uniformly sinking, it sometimes rises into lofty mountains. If the depth of the sea be in proportion to the elevation of the land, as has been generally supposed, its greatest depth will not exceed five or six miles, for there is no mountain six miles perpendicular above the level of the sea. The sea has never been actually sounded to a depth much exceeding a mile; every thing beyond therefore rests entirely upon conjecture and analogical reasoning, which ought never to be admitted to determine a single point that can be ascertained by experiment. Along the coasts, where the depth of the sea is in general well known, it has always been found proportioned to the height of the shore: when the coast is high and mountainous, the sea that washes it is deep; when, on the contrary, the coast is low, the water is shallow. Whether this analogy holds at a distance from the shore, experiments alone can determine.

To calculate the quantity of water contained in the sea, while its depth is unknown, is of course impossible. But, if we suppose with Buffon, that its medium depth is the fourth part of a mile, the ocean, if its superficies be

128,235,759 square miles, will then contain 32,058,939,75 cubic miles of water. Let us now endeavour to compute the quantity of water which is constantly discharged into the sea. For this purpose let us take a river whose velocity and quantity of water is known, the Po for instance, which according to Riccioli is 1000 feet (or 100 perches of Boulogne) broad, ten feet deep, and runs at the rate of four miles in an hour consequently that river discharges into the sea 200,000 cubic perches of water in an hour, or 4,800,000 in a day. A cubic mile contains 125,000,000 cubic perches; the Po therefore will take twenty-six days to discharge a cubic mile of water into the sea. Let us now suppose, what is perhaps not very far from the truth, that the quantity of water which the sea receives from the rivers in any country is proportioned to the extent of that country. The Po, from its origin to its mouth, traverses a country 380 miles long, and the rivers which fall into it on every side rise from sources about sixty miles distant from it. The Po therefore, and the rivers which it receives, water a country of 45,600 square miles. Now, since the whole superficies of the dry land is about 42,745,253 square miles, it follows, from our supposition, that the quantity of water discharged by all the rivers in the world, in one day, is thirty-six cubic miles, and in a year 13,140. If therefore the sea contains 32,058,939 cubic miles of water, it would take all the rivers in the world 2439 years to discharge an equal quantity.

It may seem surprising that the sea, since it is continually receiving an immense supply of water, does not visibly increase, and at last cover the whole earth. But our surprise will cease, if we consider that the rivers themselves are supplied from the sea, and that they do nothing more than carry back those waters which the ocean is continually lavishing upon the earth. Dr. Halley has demonstrated that the vapors raised from the sea, and transported upon land, are sufficient to maintain all the rivers in the world. The simplicity of this great process is astonishing; the sea not only connects distant countries, and renders it easy to transport the commodities of one nation to another, but its waters rising in the air descend in showers to fertilise the earth, and nourish the vegetable kingdom; and, collecting into rivers, flow onwards, bringing fertility, and wealth, and commerce, along with them, and again return to the sea to repeat the same round. The knowledge of this process of nature might, one would think, have convinced philosophers that the proportion between sea and land continued always nearly the same. They however have formed different theories about this as well as most other subjects, maintaining on the one hand that the sea is continually encroaching on the land, and, on the other, that the land is constantly gaining on the sea. Both sides have supported their theories by arguments, demonstrations, and incontrovertible facts! The height of the mountains, say the philosophers who support the encroachments of the sea, is continually diminishing; exposed to the violence of every storm, the hardest rocks must at last give way and tumble down. The rivers are continually sweeping

along with them particles of earth which they deposit in the bottom of the sea. Both the depth of the ocean then, and the height of the dry land, must be always decreasing; the waters therefore must, unless a part of them were annihilated, spread over a greater extent of surface in proportion as these causes operate. This reasoning, convincing as it is, might be confirmed by a great number of facts: it will be sufficient, however, to mention one or two. In the reign of Augustus, the Isle of Wight made a part of Britain, so that the English crossed over to it at low water with cart loads of tin: yet that island is at present separated from Britain by a channel half a mile wide. The Godwin sands on the eastern shore of England were formerly the fertile estate of earl Godwin. Nor are the encroachments of the sea confined to Britain. In the bay of Baiæ, near Naples, there are remains of houses and streets still visible below the present level of the sea. The sea therefore is making continual encroachments upon the land; and the time will come, say they, when the waters will again cover the surface of the earth. Such are the arguments of those philosophers who maintain the continual encroachments of the sea. Those who maintain the opposite theory, that the land is continually gaining on the sea, though they pretend not to deny the facts advanced by their opponents, affirm that they are altogether insufficient to establish their hypothesis. Though the rivers carry down particles of earth into the sea, these, say they, are either accumulated on other shores, or, collecting in the bottom of the ocean, harden into stone, which, being possessed of a vegetative power, rises by degrees above the surface of the sea, and form rocks, and mountains, and islands. The vegetative nature of stone indeed is sufficient, of itself, to convince us that the quantity of earth must be daily accumulating, and consequently that the surface of the sea is diminishing in extent. Celsius, a Swedish philosopher (for this dispute has been carried on in Sweden with the greatest keenness), has endeavoured to build this theory with more solid materials than vegetable stone. In a curious memoir, published in 1743, he asserts that the Baltic and the Atlantic, at least that part of it which washes Norway, is constantly diminishing; and he proves this by the testimony of many aged pilots and fishermen, who affirmed that the sea was become much shallower in many places than it had been during their youth; that many rocks formerly covered with water were now several feet above the surface of the sea; that loaded vessels used formerly to ride in many places where pinnaces and barks could now with difficulty swim. He produces instances of ancient sea-port towns now several leagues from the shore, and of anchors and wrecks of vessels found far within the country. He mentions a particular rock, which 168 years before was at the bottom of the sea, but was then raised eight feet above its surface. In another place, where the water fifty years before had reached to the knee, there was then none. Several rocks too, which, during the infancy of some old pilots, had been two feet under water, were then three

feet above it. From all these observations, M. Celsius concludes that the water of the Baltic decreases in height four lines and a half in a year, four inches five lines in eighteen years, four feet five inches in 100 years, and in 1000 years forty-five feet. Conscious, however, that these facts, how conclusive soever as far as relates to the Baltic, can never determine the general question, M. Celsius advances another argument in support of his theory. All that quantity of moisture, says he, which is imbibed by plants, is lost to the general mass of water, being converted into earth by the putrefaction of vegetables. This notion had been mentioned by Newton, and was adopted by Van Helmont; it granted, it follows as a consequence that the earth is continually increasing, and the water diminishing in a very rapid degree. Such are the arguments advanced in support of both theories; for it is needless to mention a notion of Linnæus, that the whole earth was formerly covered with water, except a single mountain. When fairly weighed they amount to nothing more than this, that the sea has encroached upon the land in some places, and retired in others; a conclusion which we are very willing to allow. What was advanced by those philosophers who maintain that the sea is continually encroaching on the land, about the depth of the sea constantly diminishing, must remain a mere assertion till they prove by experiments, either that it is really the case, or that nature has no way of restoring those particles of earth which are washed down by the rivers. Nor have they any good reason to affirm that the height of the mountains is decreasing. Can a single instance be produced? Are the Alps or the Appennines, or Taurus, or Caucasus, less lofty now than they were 1000 years ago? We mean not to deny that the rain actually washes down particles of earth from the mountains, nor to affirm that the hardest rocks are able to resist continual storms, nor that many mountains have suffered, and continue to suffer daily, from a thousand accidents. But the effects produced by all these causes are so trifling as to be altogether imperceptible. Nature has assiduously guarded against such accidents; she has formed the mountains of the most durable materials; and, where they are covered with earth, she has bound it together by a thick and firm matting of grass, and thus secured it from the rains; and should accident deprive it of this covering, she takes care immediately to supply the defect. Even should the earth be swept away, together with its covering, nature has still such resources left as frequently restore things to their former state. Many kinds of moss, one would be tempted to think, have been created for this very purpose; they take root and flourish almost upon the bare rock, and furnish as they decay a sufficient bed for several of the hardy Alpine plants. These perish in their turn, and others succeed them. The roots of the plants bind fast the earth as it accumulates, more plants spring up and spread wider, till by degrees the whole surface is covered with a firm coat of grass. Even the rain, which always contains in it a good deal of earth, contributes something to hasten the process. As

the vegetation of stone is now, we believe, given up by all parties, it is needless to take any farther notice of it here. See *STONE*. The hypothesis of M. Celsius, that water is converted into earth, has also shared the same fate, because it was unsupported by experiment, and contrary to every thing that we know either about earth or water. It is a little extraordinary that philosophers have been so lavish of water as to convert it in this manner into stone and earth, when they had given it, one would think, sufficient employment before in making new worlds, and in confuting Moses.

The sea contains the greatest quantity of salt in the *torrid zone*, where otherwise, from the excessive heat, it would be in danger of putrefaction; as we advance northward this quantity diminishes, till at the pole it nearly vanishes altogether. Under the line Lucas found that the sea contained a seventh part of solid contents, consisting chiefly of sea salt. At Harwich he found it yielded one-twenty-fifth of sea-salt. At Carlsroon, in Sweden, it contains one-thirtieth part, and on the coast of Greenland a great deal less. This deficiency of salt near the poles probably contributes a good deal towards the prodigious quantities of ice which are met with in these seas; for salt water requires a much greater degree of cold to freeze it than fresh water. It was this circumstance, probably, together with its constant motion, which induced the ancients to believe that the sea never froze. Even among the moderns, it has been a generally received opinion that sea-ice is originally formed in rivers. Buffon has made the great quantities of ice with which the South Sea abounds an argument for the existence of a continent nearer the Antarctic pole. But it is now well known that great quantities of ice are formed at a distance from land. Sea-ice is of two kinds: field-ice which extends along the shore, and is only two or three feet thick; and mountain ice, which abounds in the middle of the ocean. The size of these mountains is sometimes prodigious. The sea-ice is always fresh, and has been often of great use to navigators. The weight of sea-water is to that of river water as seventy-three to seventy; that is, a cubic foot of sea-water weighs seventy-three pounds, while the same quantity of river-water weighs only seventy pounds; but this proportion varies in different places. It is worthy of our attention, too, that the water at the surface of the sea contains less salt than near the bottom; the difference indeed is inconsiderable, but still it is something. The *compte de Marsigli* found the same quantity of water, when taken from the bottom of the Mediterranean, to weigh one ounce, three penny-weights, fifty-one grains; whereas from the surface it weighed only one ounce, three penny-weights, forty-nine grains. He repeated the experiment frequently with nearly the same result; but see *OCEAN*.

As the sea covers so great a portion of the globe, we should, no doubt, by exploring its bottom, discover a vast number of interesting particulars. Unfortunately, in the greater part of the ocean, this has hitherto been impossible. Part, however, has been examined; and the discoveries which this examination has produced,

may enable us to form some idea of the whole. The bottom of the sea bears a great resemblance to the surface of the dry land, being, like it, full of plains, rocks, caverns, and mountains; some of which are abrupt, and almost perpendicular, while others rise with a gentle declivity, and sometimes tower above the water, and form islands. Neither do the materials differ which compose the bottom of the sea, and the basis of the dry land. If we dig to a considerable depth in any part of the earth, we uniformly meet with rock; the same thing holds in the sea. The strata, too, are of the same kind, disposed in the same manner, and form indeed but one whole. The same kind of mineral and bituminous substances are also found interspersed with these strata; and it is to them probably that the sea is indebted for its bitter taste. Over these natural and original strata, an artificial bed has pretty generally been formed, composed of different materials in different places. It consists frequently of muddy tartareous substances firmly cemented together, sometimes of shells or coral reduced to powder, and near the mouths of rivers it is generally composed of fine sand or gravel. The bottom of the sea resembles the land likewise in another particular; many fresh springs, and even rivers rise out of it, which, displacing the salt water, render the lower part of sea, wherever they abound, quite fresh. An instance of this kind occurs near Goa, on the western coast of Indostan, and another in the Mediterranean Sea, not far from Marseilles. These facts occasioned a notion, which later experiments have exploded, that the sea beyond a certain depth was always fresh. Substances of a very beautiful appearance are frequently brought up by the sounding line from the bottom of the sea. The plummet is hollowed below, and this cavity filled with tallow, to which some of the substances adhere which form the bed of the ocean. These are generally sand, gravel, or mud; but they are sometimes of the brightest scarlet, vermilion, purple, and yellow; and sometimes, though less frequently, they are blue, green, or white. These colors are owing to a kind of jelly which envelopes the substances, and vanish entirely as soon as this jelly dries. At times, however, they assume the appearance of tartareous crusts, and are then so permanent that they can be received into white wax melted and poured round them, and perhaps by proper care might be converted into valuable paints.

For the temperature, color, &c., of the sea, and other interesting phenomena respecting it, see the articles *OCEAN* and *GEOGRAPHY*.

We have to add however the result of some interesting experiments on the *specific gravity* of sea-water by Dr. Traill of Liverpool, and some remarks on the same subject, and on the *temperature* of the sea at different depths, made by Dr. J. C. Horner, the naturalist to the expedition of discovery lately undertaken by Kotzebue:—

‘In the course of some experiments on the specific gravity of different fluids,’ says the first of these gentlemen, ‘I had occasion to examine sea-water drawn in different latitudes, and from various depths in the Atlantic Ocean. The re-

sult is somewhat remarkable; and, though the number of my experiments may not entitle me to deduce from them a general law, yet their publication may excite the attention of those who have opportunities of repeating them. The specimens of sea-water were procured at my request by nautical friends some time ago; but all were taken up within the same year. Each specimen filled a common glass bottle, and had a label immediately affixed to it, indicating the place where it was obtained. The water, from considerable depths, for want of better apparatus, was procured by the following contrivance. It was found that a bottle might be so corked as to prevent the admission of water, until the pressure of the superincumbent column, on sinking it by an attached weight, pushed the cork inwards, when the escape of the air, and the filling of the bottle with water, again forced the cork into its neck, and thus obviated the change of displacement of the included water, as the bottle was drawn upward. The pressure required to force the cork being ascertained by previous experiment, the bottle, thus prepared, was sunk to the requisite depth; and, after remaining there for half an hour or more, was drawn up and immediately secured.

My experiments were carefully conducted by means of a delicate balance, and a thin flask, capable of holding upwards of 1050 grains of distilled water, when its ground stopper was adjusted. A bottle of distilled water, and all the specimens of sea-water, were reduced to the same temperature, by being placed for many days on the same table, in a room without a fire; and, to prevent error from this source, each liquid was examined by a good thermometer previously to the experiment. The weight of the distilled water bearing the same ratio to the weight of an equal volume of the other fluids, as 1·0000 to the sought specific gravities, is the simple formula from which the following table is deduced:—

Table of Specific Gravities at Temperature 51° Fahrenheit.

1. Sea-water drawn from the surface, lat. 47° 47' N., long. 10° 40' W. = 1·0277
2. Ditto from the depth of forty fathoms, ditto, ditto = 1·0280
3. Ditto from the surface, lat. 37° N., long. 9° W. off Cape St. Vincent = 1·0281
4. Ditto from the surface, Maderia, bearing north-east distance, sixteen leagues = 1·0284
5. Ditto from the depth of forty fathoms in the same spot = 1·0286
6. Ditto from the depth of thirty-six fathoms, lat. 26° N., long. 64° W., during a voyage to Demerara = 1·0287
7. Ditto from the surface, lat. 92° 11' N., longitude not given; but, as it was in the same voyage as No. 6, it was probably more to the west = 1·0289
8. Ditto from the surface, lat. 8° 20' N., longitude not given; but as the three last numbers were obtained in the same voyage to Demerara, and this one, at my request, was taken when the captain supposed that he would make land in a day or two, there can be little doubt of the ship being at this time just off the mouth of the Orinoco = 1·0267

In calculating these specific gravities, I had carried them to several decimal places farther; but I have suppressed these in the Table, because it might appear an affectation of accuracy which the case does not admit; for the difference of a single one-tenth of a grain in weighing each fluid in the above experiments, would make a difference of nearly $\frac{1}{10000}$ th in their specific gravities; or would alter the last figure of the present decimal series.

The inferences to which these experiments lead are, 1st. That the specific gravity of the waters of the Atlantic increases as we approach the equator. 2d. That the specific gravity of sea-water increases with the depth from which it is drawn.

The only exception in the table to the first inference is No. 8; but the great diminution of density here observed is undoubtedly owing to the vast mass of rushing water poured into the ocean by the Orinoco, the stream of which is said to discolor the sea many leagues from land, and at a considerable distance from the shore to preserve the freshness of its current.

The results of captain Scoresby's experiments, on the specific gravity of sea-water, seem to agree with the inferences above mentioned. This intelligent navigator found that the density of the waters of the ocean, near the meridian of Greenwich, gradually diminished from lat. 57° 42' N., to lat. 66° 45'; being at the former 1·0280, at the latter 1·0263. In higher latitudes, or in confined seas, we cannot expect to find a uniformity in such results; for the influence of the ice in the one, and of situation in the other, are sufficient to conceal such minute differences. On referring to his valuable work, an examination of his experiments on the density of sea-water, at different depths, will confirm also the second inference. The few exceptions to it in captain Scoresby's Table may be explained by the influence of currents, and irregularities produced by the neighbourhood of ice, which is known to exercise a powerful influence on the atmosphere, and on the waters. In the prosecution of this interesting subject, no instrument appears more admirably adapted to procure water from any required depth, without chance of error, than that gentleman's marine diver; which, with simplicity of construction, unites every property that can insure accuracy and convenience in those delicate investigations for which it was intended by its ingenious contriver.

I am at a loss, adds this writer, what reason to assign for the increased density of water brought up from considerable depths; unless, according to a suggestion offered by my friend Dr. Brewster, it may be owing to the imperfect elasticity of water, which prevents its particles, when compressed by the superincumbent column, from regaining their original condition, when the pressure is removed. A curious series of experiments might be made on the mechanical compression of water; by employing the bathometer of Mr. Perkins, the inventor of the method of multiplying copper-plates by engravings on steel. In this machine, water enclosed in a brass tube, the sides of which need not exceed one-tenth of an inch in thickness, is com-

pressed by a solid piston, sliding in a leather collar, and acted on by the superincumbent column when sunk in the depths of the ocean. This seems one of the simplest means of producing an immense pressure; and, when conversing with Mr. Perkins, I remember his stating that the piston did not exactly return to its original position, on bringing up the instrument.'

Dr. Horner has embodied the result of his observations in a table which demonstrates the facts also proved by the experiments of Krusenstern's voyage, that the sea on the surface, between the tropics, is specifically heavier, and that it contains more salt, than in higher latitudes. If we take together the statements from 25° S. as far as 25° N. lat., and in the same manner, from 50° to 65° of N. lat., the mean of the first is 1.0288, that of the latter 1.0245, which gives the difference of 0.0043 or $\frac{1}{237}$. But this by no means proves an absolute inequality in the saltiness of the water in general. To give a decided opinion on it, the sea-water must be fetched up from considerable depths, and weighed. Probably the greater saltiness arises from the rapid decrease of the fresh water, in consequence of evaporation. From the well known slowness of the transition of chemical elements, in undisturbed compounds, this decrease is but slowly repaired; and, as the upper layers are also the warmer, they may, notwithstanding their greater specific density, in consequence of their extent, be maintained by the warm swimming above the lower cooler layers, by which a principal agent of commixture, the difference of weight, is rendered of no effect. The slowness of change, and the condensation of the saline solution at the surface, which results from it, has the advantage that the acceleration of the evaporation sets bounds to itself, because, with the increasing condensation, the attraction of the salt to the parts of the water is greater, and, consequently, the diminution of the latter less. Without this arrangement the tropical seas would perhaps be covered, like the frozen seas of the north, with constant fogs. Subsequent experiments will show how far our explanation of this inequality is correct; of which we have now more hopes, as convenient accurate apparatus have been discovered to fetch up water from any depth, at pleasure, and unmixed.

The considerable number of observations (there are 116 of them) on the temperature of the sea below the surface, their extent over waters of the ocean remote from each other, and probably, also, their accuracy, give them a decided claim to the attention of the natural philosopher; and the perseverance with which they were continued, under various circumstances, does honor, as well to the naturalist of the expedition, as to the commander, who not only in calms, but in some periods almost daily, afforded the necessary assistance. They were all made with Siv's Thermometer, which is a good assurance of their accuracy. It is certainly remarkable that an instrument so simple, so convenient in the use, so certain in the results, and which has been long known, is not more frequently used for this purpose; so that in the latest scientific voyages much more uncertain thermometers

have been used, to which only the deep sea clam of captain Ross forms an exception. Our observations fall under two heads: measurements of the temperature in different depths, in the same places of the ocean, and in statements of the warmth in the usual soundings, from sixty to eighty fathoms, in different places.

The most complete observations on the changes of the temperature, in increasing depths, are, in the South Sea, of the 13th and 14th of September, 1817, in 36° N. lat., and 148° W. long. Besides confirming the general law, that the cold increases with the depth, they also afford the following results.—1. The upper parts of the water show a particular warmth, as the temperature, in the first eight fathoms, diminished only 0° 4', R., but from that depth to twenty-five fathoms full 6°, R. From twenty-five to 100 fathoms' depth the decrease of warmth is considerably less, since in the next twenty-five fathoms, it is only 1° 7', R., and in the next fifty fathoms only 1° 5', R.; a decrease which amounts to only the tenth part of the preceding. It is still slower between 100 and 300 fathoms. 2. If we compare these observations with those of the 6th of June 1816, in 37° N. and in 199° W. long., consequently in the same parallel of latitude, the influence of the season is particularly observable in the temperature on the surface, which in June is 13° R., in September 18° R. It, however, does not go much deeper than from twenty-five to fifty fathoms; and at 100 fathoms it is already within the limits of the accuracy of such observations; for we have

For 100 fathoms	{	6th June	9° 4' Reaum.
		13th September	9 4
		14th September	8 6

3. A certain coincidence with these results, only on a greater scale, is shown by the experiments of the 15th of November, 1817, in 9° N. lat., and 205° W. long., in which the temperature decreases from the surface to about sixty or seventy fathoms, rapidly and uniformly, from 24° 7', R., to 8° 8', R. From nine to 101 fathoms, this rapid decrease, instead of proceeding, is suddenly reduced to the small amount of 0° 9', R. But if we compare these observations with those immediately preceding and succeeding them of the 13th, 14th, and 17th, of November, we shall hesitate to draw from them decisive conclusions.

4. The observations of the 13th of April, 1816, in 15° S., and 130° W., follow a quite different course from those in September, 1817, in 36° N. The decrease of warmth from the surface, to as far as 100 fathoms' depth, is much more inconsiderable, being here only 3° 6', there nearly treble, namely, 9° 4', R. It becomes more considerable between 100 and 200 fathoms, namely, 8° 8', R. Remarkable as this inequality is, it yet seems impossible to ascribe it to an error in the observation, such as too soon drawing up the thermometer: for, on the one hand, the regular course of the experiments of the 14th of September, 1817, and their coincidence with those of the 13th, at the depths of 0° 25' and 100 fathoms, does not allow us to suppose any thing of the kind; on the other side, the observations of the 13th of April, 1816, find their

confirmation in the preceding ones of the 7th of April, in 18° S., which give a difference of 0 to 125 fathoms of 4° 8', R., that is, from 0 to 100 fathoms; likewise 3° 8', R. The same observations then give for the second hundred of the depth in fathoms, likewise about 8°, R. It is not to be discovered from the observations, whence this difference in the progressive decrease of the warmth arises. It cannot well be ascribed to the influence of the seasons, at least in lat. 35° N.: the observations of June and September show an agreement with each other. The reason perhaps is, that the perpendicular rays of the sun penetrate the water, between the tropics, to a greater depth than in latitudes where the sun never appears in the zenith. The place of constant temperature, independent of

the seasons, must probably lie much deeper between the tropics than beyond them.

5. The observations of the 22nd of September 1817, in 28° N. lat. and in 152° W. long., seem to present a much more uniform course, particularly if we set aside the statement in twenty-five fathoms' depth, which does not appear to agree with the higher or lower observations. We have from them a decrease of heat of 3° 5' R. for the first fifty fathoms; 3° 0' R. for the second fifty fathoms, and 4° 3' R. from 100 to 200.

The collective observations on the progress of the decrease of heat were made in the South Sea. From the Atlantic Ocean we received only a few insulated statements for depths of 100 to 200 fathoms. The experiments in both oceans are arranged in the following Table:—

WARMTH of the SEA-WATER at different depths, arranged according to the Geographical Latitudes in degrees of Reaumur's Thermometer.

Month.	Surface.	70 to 90 Fathoms.	100 Fathoms.	200 Fathoms.	300 Fathoms.	Latitude.	Longitude.	
April . . .	21·0	—	17·2	9·9	—	18 S.	125 W.	In the South Sea.
—	21·4	—	17·8	10·8	—	15	134	
May . . .	22·6	—	13·5	—	—	1 N.	177	
November . .	24·5	—	10·7	—	—	9	204	
—	23·0	14·1	—	—	—	12	210	
December . .	22·1	12·8	—	—	—	16	240	
—	21·7	16·6	—	—	—	18	224	
September . .	20·1	—	13·0	8·8	—	28	152	
June . . .	18·7	—	13·5	—	9·4	29	199	
September . .	18·0	—	9·3	7·0	5·4	36	147	
—	—	—	—	—	(4·8)*	—	—	
June . . .	13·0	—	9·3	—	5·0	37	199	
January . . .	10·4	—	—	3·2	—	44 S.	57	In the Atlantic Ocean.
March . . .	17·3	—	12·3	—	—	34	27	
April . . .	15·8	12·8	—	7·9	—	31	15	
October . . .	18·9	—	10·6	—	—	30 N.	15	
—	16·4	—	—	11·0	—	39	13	

The temperatures, in the usual soundings from seventy to eighty fathoms, appear, on account of their considerable number, from which mean numbers may be deduced, the best calculated to supply fundamental data. Yet some singular results appear in them. Among these is the statement in the South Sea, that in 18° N. lat. and seventy-six fathoms' depth, in December, the water was 2½° R. warmer than in 11° N. lat. and seventy fathoms depth in November. Perhaps the local places of observation have had here some influence. The observation in 11° lat. lies in the west of the Mariana Islands, and in the north of the Philippines, consequently sheltered against the warmer currents from the south by a kind of wall, and open only to the north, while, on the other hand, the place in 18° lat.

lies more in the open sea. The temperature found at the depth of ninety fathoms in the Chinese Sea to the west of Luçon is remarkably cold; perhaps in consequence of the north-east currents prevailing in December.

Almost daily observations on the temperature were made in the Atlantic Ocean from the 20th of April to the 13th of June, 1818, mostly at the depth of seventy fathoms. In order to balance the possible errors of the observations which may arise from the difference in the time that the thermometer was under water, I have added several together, and noted the mean number. They are in the following Table. The figures in parentheses show the number of observations, the mean of which is given.

Observation.	Temperature of the water.		Depth in Fathoms.	Latitude.	Longitude.
	On the Surface.	Below the Surface.			
April 20—26. (5)	18·6	13·0	57	17° 15' S.	3° 20' W.
— 27—30. (4)	20·8	13·5	66	10 24	12 2
— 30—May 4. (5)	22·1	11·8	67	5 12	17 5
May 3—10 (8)	22·7	11·4	74	0 43 N.	20 28
— 10—16. (7)	22·6	11·4	75	4 51	24 38
— 15—19. (5)	21·2	11·5	67	9 34	29 38
— 20—24. (5)	20·3	16·1	71	19 30	35 7
— 25—30. (6)	18·3	14·8	71	31 0	36 30
— 31—June 6. (5)	15·1	12·3	68	40 30	29 40
June 7—13. (7)	13·2	9·6	77	48 9	17 15

This table shows a similar anomaly to that which we noticed in the South Sea. That is, the proportionately low temperature near the equator from 5° S. to 10° N. Perhaps the greater heat between 20° and 30° of S. lat. might be a remnant of the southern summer. But the considerable increase of temperature in the zone, between 15° and 30° N. lat., is still more remarkable. For though, towards the end of May, the sun was near the zenith of those parts, yet this influence, which could be only commencing here, must have shown itself in the waters near the equator, which the sun had just traversed at the time of those observations (in April), which was by no means the case. The temperatures at the surface indicate indeed this influence of the sun, being the highest at the equator (22½° R.), while the southern half of the tropical seas had already assumed an autumnal temperature, since we observe here, in 17° S., the same warmth (18¼° R.) as in 30° N.

SEABURY (Samuel), the first bishop of the episcopal church of the United States of America, was born in 1728, and educated at Yale College, after which he went to Scotland to study medicine. His father being a minister in Connecticut, the son finally chose the ecclesiastical profession; and in 1753 was ordained in London. He fixed finally at New London in Connecticut, and in 1784 he made a voyage to England, to obtain consecration as a bishop of the new independent episcopal church. Meeting with obstacles to his wishes from the English prelates, he went to Scotland, where he was consecrated by three bishops of the episcopal church of that kingdom. He returned thus qualified to his native country, and fulfilled the duties of his pastoral office in an exemplary manner till his death, which happened in 1796. Bishop Seabury published two volumes of sermons, to which a supplement was added in 1798.

SEA CORMORANT. See LARUS.

SEA COW. See HIPPOPOTAMUS, and TRICHECUS.

SEAFORD, a post and sea-port town of England, one of the cinque ports. It sent two members to the imperial parliament. Its inhabitants are employed in fishing, but of late it has been resorted to as a bathing place. The privilege of a cinque-port was given it by Charles I., and it had sent two members to parliament from

the 26th of Edward I. The right of election was in the inhabitants paying scot and lot; and the returning officer the bailiff; who is the head of the corporation, which consists of twelve jurats, and an indefinite number of freemen. It was disfranchised in 1832. In 1560 it was attacked by the French, but they were repulsed. It is eight miles S. S. E. of Lewes, and sixty-three south by east of London.

SEA-GRASS. See FUCUS.

SEA-GULL. See LARUS.

SEA-HEDGEHOG. See ECHINUS.

SEA-HOLLY. See ERYNGIUM.

SEA-HORSE, in ichthyology. See TRICHECUS.

SEAL, *n. s.* Sax. *feol*, *fele*; Dan. *seel*. The sea calf.

The *seal* or *soyle* is in make and growth not unlike a pig, ugly faced, and footed like a mold-warp: he delighteth in musick, or any loud noise, and thereby is trained to shew himself above water: they also come on land. *Carew*.

An island salt and bare,

The haunt of *seals*, and orks, and seamews clang.

Milton.

SEAL, *n. s., v. a., & v. n.* } Sax. *fiȝel*; Lat. SEALING-WAX, *n. s.* } *sigillum*. A stamp engraved with a particular impression; the impression made: to attach, confine, or fasten by a seal: hence to shut up; enclose; mark with a seal: as a verb neuter, to fix a seal.

We make a sure covenant and write it, and our princes and priests *seal* unto it. *Nehemiah ix. 33.*

When I have performed this, and *sealed* to them this fruit, I will come into Spain. *Romans xv. 28.*

Solyman shewed him his own letters, asking him if he knew not that hand, and if he knew not that *seal*? *Knolles*.

The king commands you

To render up the great *seal*.

Shakspeare. Henry VIII.

Till thou canst rail the *seal* from off my bond,
Thou but offendest thy lungs to speak so loud.

Shakspeare.

He that brings this love to thee,

Little knows this love in me;

And by him *seal* up thy mind. *Id. As You Like It.*

God joined my heart to Romeo's; thou our hands;

And ere this hand, by thee to Romeo *sealed*,

Shall be the label to another deed,

Or my true heart with treacherous revolt

Turn to another, this shall slay them both.

Shakspeare.

Seal up your lips, and give no words but mum!

Id.

You'd rail upon the hostess,
And say you would present her at the leet,
Because she bought stone jugs, and no sealed quarts.

Id.

I will seal unto this bond.

Id.

The sense is like the sun; for the sun seals up the lobe of heaven, and opens the globe of earth; so the sense doth obscure heavenly things, and reveals earthly things.

Bacon.

They their fill of love

Took largely, of their mutual guilt the seal. *Milton.*

Back to the' infernal pit I drag thee chained,

And seal thee so as henceforth not to scorn

The facil gates of hell, too slightly barred. *Id.*

The prominent orifice was closed with sealingwax.

Boyle.

If the organs of perception, like wax overhardened with cold, will not receive the impression of the seal; or, like wax of temper too soft, will not hold it; or else supposing the wax of a temper fit, but the seal not applied with a sufficient force to make a clear impression: in any of these cases the print left by the seal will be obscure.

Locke.

He saw his monkey picking the seal wax from a letter.

Arbutnot.

The same his grandsire wore about his neck

In three seal rings; which after, melted down,

Formed a vast buckle for his widow's gown. *Pope.*

A SEAL is a stamp of metal, stone, or some other convenient substance, whereon are engraven the arms, device, &c., of some prince, state, community, magistrate, or private person, often with a legend or inscription; the impression whereof in wax serves to make acts, instruments, &c., authentic. The use of seals, as a mark of authenticity to letters and other instruments in writing, is extremely ancient. We read of it among the Jews and Persians in the earliest and most sacred records of history. And in the book of Jeremiah there is a very remarkable instance, not only of an attestation by seal, but also of the other usual formalities attending a Jewish purchase. In the civil law also seals were the evidence of truth, and were required, on the part of the witnesses, at least at the attestation of every testament. But in the times of the Anglo-Saxons they were not much in use in England. For though Sir Edward Coke relies on an instance of king Edwyn's making use of a seal, about 100 years before the conquest, yet it does not follow that this was the usage among the whole nation, as we are assured by all our ancient historians that sealing was not then in common use. The method of the Saxons was for such as could write to subscribe their names, and, whether they could write or not, to affix the sign of the cross; which custom our illiterate vulgar to this day keep up, by signing a cross for their mark when unable to write their names. This inability to write his name, and therefore making a cross in its stead, is honestly avowed by Cædwalla, a Saxon king, at the end of one of his charters. For the same unsurmountable reason, the Normans, a brave but illiterate nation, at their first settlement in France, used the practice of sealing only, without writing their names; which custom continued when learning had made its way among them, though the reason had ceased; and hence the charter of Edward

the Confessor to Westminster Abbey, himself being brought up in Normandy, was witnessed only by his seal, and is generally thought to be the oldest sealed charter of any authenticity in England. At the Conquest the Norman lords brought over into this kingdom their own customs; and introduced waxen seals only, instead of the English method of writing their names, and signing with the sign of the cross. The impressions of the seals were sometimes a knight on horseback, sometimes other devices; but coats of arms were not introduced into seals till about the reign of Richard I.

SEAL is also used for the wax or lead, and the impression thereon, affixed to the thing sealed. The color of impressions of seals has varied considerably. That sort of wax most anciently used was white. The employment of yellow wax on public documents prevailed a good deal about the twelfth century. Ultimately, however, red wax became preferred in almost all the European countries, and remains so at the present moment. The western patriarchs and emperors sealed in green wax certain letters to persons of distinction. This usage was adopted in the twelfth century in France, and at a date somewhat subsequent introduced into Germany. Specimens of this variety are however extremely rare. In our own country the green seal is still occasionally used on charters. The emperor Charles V., in 1524, accorded the privilege of sealing in blue, but the example is unique of the employment of that color among European potentates. Certain princes have, at different times, adopted black wax to seal withal; as, for instance, Jeremy, patriarch of Constantinople. In the thirteenth century it was employed in France. Impressions are also found in mixed wax, i. e. of different colors. Seals vary, besides, in size and shape; they are sometimes large, sometimes small square, round, long, trefoil, lozenge, &c.

SEAL, in zoology. See PHOCA.

SEAL, KING'S GREAT, is that whereby all patents, commissions, warrants, &c., coming down from the king, are sealed; the keeping whereof is in the hands of the lord chancellor.

SEALER is an officer in chancery appointed by the lord chancellor, or keeper of the great seal, to seal the writs and instruments there made in his presence.

SEALING WAX. See WAX

SEA-LION. See PHOCA.

SEAM, *n. s. & v. a.* } Saxon ream; Gotin.

SEAMSTRESS, } *seym*; Belg. *zoom*; Teut.

SEAMY, *adj.* } *saum*. The suture where

the two edges of cloth are sewed together; a cicatrice; scar: a seamstress is a woman employed in sewing: seamy, having or showing seams.

Some such squire he was,
That turned your wit the seamy side without,
And made me to suspect you. *Shakspeare. Othello.*

They wanted food and raiment; so they took
Religion for their seamstress and their cook.

Cleveland.

In velvet white as snow the troop was gowned,
The seams with sparkling emeralds set around.

Dr. den.

Precepts should be so finely wrought together in the same piece that no coarse *seam* may discover where they join.

Addison.

Seamed o'er with wounds, which his own *sabre* gave.

Pope.

Say, has the small or greater pox
Sunk down her nose, or *seamed* her face? *Swift*.

SEAM, *n. s.* Sax. *reme*; Welsh *saim*. Tal-
low; grease; hog's lard.

Shall the proud lord,

That bastes his arrogance with his own *seam*,
Be worshipp'd? *Shakspeare. Troilus and Cressida.*

Part scour the rusty shields with *seam*, and part
New grind the blunted ax. *Dryden's Æneid.*

SEAMANSHIP.

SEAMANSHIP, *n. s.* [from sea, man, and ship] the art of working a ship; including the science, knowledge, qualifications, and experience, which enable a man to exercise this noble art. A seaman, in the language of the profession, is not merely a mariner or laborer on board a ship, but a man who understands the structure of this machine, and every subordinate part of its mechanism, so as to enable him to employ it to the best advantage for pushing her forward in a particular direction, and for avoiding the numberless dangers to which she is exposed by the violence of the winds and waves. He also knows what courses can be held by the ship, according to the wind that blows, and what cannot, and which of these is most conducive to her progress in her intended voyage; and he must be able to perform every part of the necessary operation with his own hands. As the seamen express it, he must be able 'to hand, reef, and steer.'

Seamanship merits the title of a noble art, not only by its importance, which to Britons is peculiarly great, both in peace and in war, as a great means both of enriching and defending their country, but also by its immense extent and difficulty, and the number and variety of principles on which it is founded—all of which must be possessed in such a manner that they shall offer themselves, without reflection, in an instant, otherwise the pretended seaman is but a lubber, and cannot be trusted on his watch. This art is practised by seamen without what is called education, and in the humbler walks of life; and therefore it suffers in the estimation of the careless spectator. It is thought little of, because little attention is paid to it. But if multiplicity, variety, and intricacy of principles, and a systematic knowledge of these principles, entitle any art to the appellation of scientific and liberal, seamanship claims these epithets in an eminent degree. We are amused with the pedantry of the seaman, which appears in his whole language. Indeed it is the only pedantry that amuses. A scholar, a soldier, a lawyer, nay, even the elegant courtier, would disgust us, were he to make the thousandth part of the allusions to his profession that is well received from the jolly seaman; and we do the seaman no more than justice. His profession must engross his whole mind, otherwise he can never learn it.

A ship is a machine. We know the forces which act on it, and we know the results of its construction. All these are as fixed as the laws of motion. What, then, prevents this art from being reduced to a set of practical maxims, as well founded and as logically deduced as the working of a steam engine or a cotton mill? Ought not the rough seaman to look for the

same assistance; and may not the ingenious speculatist in his closet unravel the intricate thread of mechanism, which connects all the manual operations with the unchangeable laws of nature, and both furnish the seaman with a better machine, and direct him to a more dexterous use of it?

We cannot help thinking that much may be done; nay, we may say that much has been done in this way. We think highly of the progressive labors of Rемаud, Pitot, Bouguer, Du Hamel, Groggnard, Bernouilli, Euler, Rome, Gordon, Gower, and others. M. Bouguer was professor of hydrology at a marine academy of France, and was enjoined, as part of his duty, to compose dissertations both on the construction and the working of ships. His *Traité du Navire*, and his *Manœuvre des Vaisseaux*, are undoubtedly valuable performances: so are those of Euler and Bernouilli, considered as mathematical dissertations, and they are surprising works of genius, considered as the productions of persons who hardly ever saw a ship, and were totally unacquainted with the profession of a seaman. In this respect Bouguer had great superiority, having always lived at a sea-port, and having made many very long voyages. His treatises therefore are infinitely better accommodated to the demands of the seaman, and more directly instructive; but still the author is more a mathematician than an artist, and his performance is intelligible only to mathematicians.

The whole science of the art must proceed on the knowledge of the impulsions of the wind and water. These are the sources which act on the machine; and its motions, which are the ultimatum of our research, whether as an end to be obtained, or as a thing to be prevented, must depend on these forces. Now it is with respect to this fundamental point that we are as yet almost totally in the dark. And, in the performances of M. Bouguer, and the other authors above named, the theory of these forces, by which their quantity and the direction of their action are ascertained, is altogether erroneous; and its results deviate so enormously from what is observed in the motions of a ship that the person who should direct the operations on shipboard, in conformity to the maxims deducible from their propositions, would be baffled in most of his attempts, and be in danger of losing the ship. The whole proceeds on the supposed truth of that theory which states the impulse of a fluid to be in the proportion of the square of the sine of the angle of incidence; and that its action on any small portion, such as a square foot of the sails or hull, is the same as if that portion were detached from the rest, and exposed, single

and alone, to the wind or water in the same angle. But both these principles are erroneous, and to a very great degree, in cases which occur most frequently in practice, that is, in the small angles of inclination. When the wind falls nearly perpendicular on the sails, theory is not very erroneous; but, in these cases, the circumstances of the ship's situation are generally such that the practice is easy, occurring almost without thought; and in this case, too, even considerable deviations from the very best practice are of no great moment. The interesting cases are, where the intended movement requires or depends upon very oblique actions of the wind on the sails, and its practicability or impracticability depends on a very small variation of this obliquity; a mistake of the force, either as to intensity or direction, then produces a mighty effect on the resulting motion. This is the case in sailing to windward; the most important of all the general problems of seamanship. The trim of the sails, and the course of the ship, so as to gain most on the wind, are very nice things; that is, they are confined within very narrow limits, and a small mistake produces a very considerable effect. The same thing obtains in many of the nice problems of tacking, box-hauling, wearing after lying-to in a storm, &c.

The error in the second assertion of the theory is still greater, and the action on one part of the sail or hull is so greatly modified by its action on another adjoining part, that a stay-sail is often seen hanging like a loose rag, although there is nothing between it and the wind; and this merely because a great sail in its neighbourhood sends off a lateral stream of wind, which completely hinders the wind from getting at it. Till the theory of the action of fluids be established, we cannot tell what are the forces which are acting on every point of the sail and hull: therefore we cannot tell either the mean intensity or direction of the whole force which acts on any particular sail, nor the intensity and mean direction of the resistance to the hull; circumstances absolutely necessary for enabling us to say what will be their energy in producing a rotation round any particular axis. In like manner, we cannot, by such a computation, find the spontaneous axis of conversion, or the velocity of such conversion. In short, we cannot pronounce with tolerable confidence *a priori* what will be the motion in any case, or what dispositions of the sails will produce the movement we wish to perform. The experienced seaman learns by habit the general effects of every disposition of the sails; and, though his knowledge is far from being accurate, it seldom leads him into any very blundering operation. Perhaps he seldom makes the best adjustment possible, but seldomer still does he deviate very far from it; and in the most general and important problems, such as working to windward, the result of much experience and many corrections has settled the trim of the sails, which is certainly not far from the truth, though it deviates widely and uniformly from the theory of the mathematician.

But the theory is defective in one point only; and although this is a most important point, and

the errors in it destroy the conclusions of the chief propositions, the reasoning remains in full force, and the *modus operandi* is precisely such as is stated in the theory. The principles of the art are therefore to be found in these treatises; but false inferences have been drawn, by computing from erroneous quantities. The rules and the practice of the computation, however, are still beyond controversy: nay, since the process of investigation is legitimate, we may make use of it to discover the very circumstance in which we are at present mistaken; for by converting the proposition, instead of finding the motions by means of the supposed forces, combined with the known mechanism, we may discover the forces by means of this mechanism and the observed motions.

We shall therefore in this place give a very general view of the movements of a ship under sail, showing how they are produced and modified by the action of the wind on her sails, and of the water on her rudder and on her bows.

SECT. I.—OF THE MOVEMENTS OF A SHIP UNDER SAIL.

We shall not attempt a precise determination of any of these movements; but we shall say as much as may enable the curious landsman to understand how this mighty machine is managed amidst the fury of the winds and waves; and, what is more to our wish, we hope to enable the uninstructed but thinking seaman to generalise that knowledge which he possesses; to class his ideas, and give them a sort of rational system; and even to improve his practice, by making him sensible of the immediate operation of every thing he does, and in what manner it contributes to produce the movement which he has in view.

A ship may be considered as a mass of inert matter in free space, at liberty to move in every direction, according to the forces which impel or resist her; and when she is in actual motion, in the direction of her course, we may still consider her as at rest in absolute space, but exposed to the impulse of a current of water moving equally fast in the opposite direction: for in both cases the pressure of the water on her bows is the same; and we know that it is possible, and frequently happens in currents, that the impulse of the wind on her sails, and that of the water on her bows, balance each other so precisely that she not only does not stir from the place, but also remains steadily in the same position, with her head directed to the same point of the compass. This state of things is easily conceived by any person accustomed to consider mechanical subjects, and every seaman of experience has observed it. It is of importance to consider it in this point of view, because it gives us the most familiar notion of the manner in which these forces of the wind and water are set in opposition, and made to balance or not to balance each other by the intervention of the ship, in the same manner as the goods and the weights balance each other in the scales by the intervention of a beam or steel-yard.

When a ship proceeds steadily in her course, without changing her rate of sailing, or varying

the direction of her head, we must conceive the accumulated impulses of the wind on all her sails is precisely equal and directly opposite to the impulse of the water on her bows. The seaman has two principal tasks to perform. The first is to keep the ship steadily in that course which will bring her farthest on in the line of her intended voyage. Having chosen such a course as he thinks most advantageous, he must set such a quantity of sail as the strength of the wind will allow him to carry with safety and effect, and must trim the sails properly, or so adjust their positions to the direction of the wind that they may have the greatest possible tendency to impel the ship in the line of her course, and to keep her steadily in that direction.

His other task is to produce any deviations which he sees proper from the present course of the ship; and to produce these in the most certain, the safest, and the most expeditious manner. It is chiefly in this movement that the mechanical nature of a ship comes into view, and it is here that the superior address and resource of an expert seaman is to be perceived. Under the article SAILING some notice has been taken of the first task of the seaman, and it was there shown how a ship, after having taken up her anchor and fitted her sails, accelerates her motion, by degrees which continually diminish, till the increasing resistance of the water becomes precisely equal to the diminished impulse of the wind, and then the motion continues uniformly the same so long as the wind continues to blow with the same force and in the same direction.

It is perfectly consonant to experience that the impulse of fluids is in the duplicate ratio of the relative velocity. Let it be supposed that when water moves one foot per second, its perpendicular pressure or impulse on a square foot is m pounds. Then, if it be moving with the velocity V , estimated in feet per second, its perpendicular impulse on a surface S , containing any number of square feet, must be mSV^2 . In like manner, the impulse of air on the same surface may be represented by nSV^2 ; and the proportion of the impulse of these two fluids will be that of m to n . We may express this by the ratio of q to 1, making $\frac{m}{n} = q$.

M. Bouguer's computations and tables are on the supposition that the impulse of sea-water moving one foot per second is twenty-three ounces on a square foot, and that the impulse of the wind is the same when it blows at the rate of twenty-four feet per second. These measures are all French. They by no means agree with the experiments of others; and what we have already said, under resistance of fluids, is enough to show that nothing like precise measures can be expected. It was shown as the result of a rational investigation, and confirmed by the experiments of Buat and others, that the impulsions and resistances at the same surface, with the same obliquity of incidence and the same velocity of motion, are different according to the form and situation of the adjoining parts. Thus the total resistance of a thin board is greater than that of a long prism, having this board for its front or bow, &c. We are greatly at a loss what

to give as absolute measures of these impulsions.

1. With respect to water. The experiments of the French academy on a prism two feet broad and deep, and four feet long, indicate a resistance of 0.973 lb. avoirdupois to a square foot, moving with the velocity of one foot per second at the surface of still water. Mr. Buat's experiments on a square foot wholly immersed in a stream were as follow:—

A square foot as a thin plate	1.81 lb.
Ditto as the front of a box one foot long	1.42
Ditto as the front of a box three foot long	1.29

The resistance of sea-water is about $\frac{1}{2}$ greater.

2. With respect to air, the varieties are as great. The resistance of a square foot to air moving with the velocity of one foot per second appears from Mr. Robins's experiments on sixteen square inches to be on a square foot 0.001596 lb.

Chevalier Borda's on 16 inches 0.001757

on 81 inches 0.002042

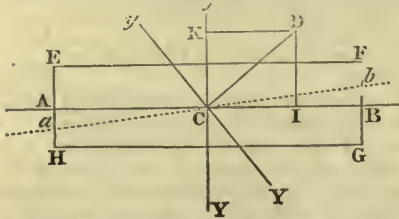
Mr. Rouse's on large surfaces 0.002291

Precise measures are not to be expected, nor are they necessary in this enquiry. Here we are chiefly interested in their proportions, as they may be varied by their mode of action in the different circumstances of obliquity and velocity.

We begin by recurring to the fundamental proposition concerning the impulse of fluids, viz. that the absolute pressure is always in a direction perpendicular to the impelled surface, whatever may be the direction of the stream of fluid. We must therefore illustrate the doctrine by always supposing a flat surface of sail stretched on a yard, which can be braced about in any direction, and giving this sail such a position and such an extent of surface that the impulse on it may be the same both as to direction and intensity with that on the real sails. Thus the consideration is greatly simplified. The direction of the impulse is therefore perpendicular to the yard. Its intensity depends on the velocity with which the wind meets the sail, and the obliquity of its stroke. We shall adopt the constructions founded on the common doctrine, that the impulse is as the square of the sine of the inclination, because they are simple; whereas, if we were to introduce the values of the oblique impulses, such as they have been observed in the excellent experiments of the academy of Paris, the constructions would be complicated in the extreme, and we could hardly draw any consequences which would be intelligible to any but expert mathematicians. The conclusions will be erroneous, not in kind but in quantity only; and we shall point out the necessary corrections, so that the final results will be found not very different from real observation.

If a ship were a round cylindrical body like a flat tub, floating on its bottom, and fitted with a mast and sail in the centre, she would always sail in a direction perpendicular to the yard. This is evident. But she is an oblong body, and may be compared to a chest, whose length greatly exceeds its breadth. She is so shaped that a moderate force will push her through the water with her head or stern foremost; but it requires a very great force to push her sidewise

with the same velocity, A fine sailing ship of war will require about twelve times as much force to push her sidewise as to push her head foremost. In this respect therefore she will very much resemble a chest whose length is twelve times its breadth; and, whatever be the proportion of these resistances in different ships, we may always substitute a box which shall have the same resistances headwise and sidewise.



Let EFGH of the diagram be the horizontal section of such a box, and AB its middle line and C its centre. In whatever direction this box may chance to move, the direction of the whole resistance on its two sides will pass through C. For, as the whole stream has one inclination to the side EF, the equivalent of the equal impulses on every part will be in a line perpendicular to the middle of EF. For the same reason, it will be in a line perpendicular to the middle of FG. These perpendiculars must cross in C. Suppose a mast erected at C, and YCy to be a yard hoisted on it carrying a sail. Let the yard be first conceived as braced right athwart at right angles to the keel, as represented by Y'y'. Then, whatever be the direction of the wind abaft this sail, it will impel the vessel in the direction CB. But, if the sail has the oblique position Yy, the impulse will be in the direction CD perpendicular to CY, and will both push the vessel a-head and sidewise. For the impulse CD is equivalent to the two impulses CK and CI (the sides of a rectangle of which CD is the diagonal). The force CI pushes the vessel a-head, and CK pushes her sidewise. She must therefore take some intermediate direction ab, such that the resistance of the water to the plane FG is to its resistance to the plane EF as CI to CK.

The angle bCB between the real course and the direction of the head is called the leeway; and in the course of this dissertation we shall express it by the symbol x. It evidently depends on the shape of the vessel and on the position of the yard. An accurate knowledge of the quantity of leeway, corresponding to different circumstances of obliquity of impulse, extent of surface, &c., is of the utmost importance in the practice of navigation; and even an approximation is valuable. The subject is so very difficult that this must content us for the present.

Let V be the velocity of the ship in the direction Cb, and let the surfaces FG and FE be called A' and B'. Then the resistance to the lateral motion is $mV^2 \times B' \times \text{sine}^2 bCB$, and that to the direct motion is $mV^2 \times A' \times \text{sine}^2 bCK$, or $mV^2 \times A' \times \text{cos.}^2 bCB$. Therefore these resistances are in the proportion

of $B' \times \text{sine}^2 x$ to $A' \times \text{cos.}^2 x$ (representing the angle of leeway bCB by the symbol x).

Therefore we have $CI : CK$, or $CI : ID$
 $= A' \text{cos.}^2 x : B' \text{sine}^2 x, = A' : B, \frac{\text{sine}^2 x}{\text{cos.}^2 x}$
 $= A : B; \text{tangent}^2 x.$

Let the angle YCB, to which the yard is braced up, be called the trim of the sails, and expressed by the symbol b. This is the complement of the angle DCI. Now $CI : ID = \text{rad.} : \text{tan. DCI}, = 1 : \text{tan. DCI}, = 1 : \text{cotan. } b$. Therefore we have finally $1 \cdot \text{cotan. } b = A' : B' \cdot \text{tan.}^2 x$, and $A' \cdot \text{cotan. } b = B' \cdot \text{tangent}^2 x$, and $\text{tan.}^2 x = \frac{A}{B} \text{cot. } b$. This equation evidently

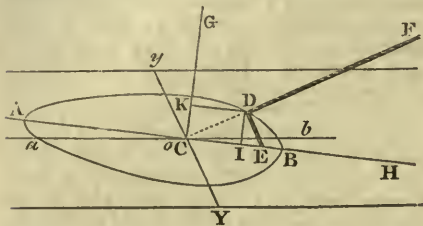
ascertains the mutual relation between the trim of the sails and the leeway in every case where we can tell the proportion between the resistances to the direct and broadside motions of the ship, and where this proportion does not change by the obliquity of the course. Thus, suppose the yard braced up to an angle of 30° with the keel. Then $\text{cotan. } 30^\circ = 1.732$ very nearly. Suppose also that the resistance sidewise is twelve times greater than the resistance headwise. This gives $A' = 1$ and $B = 12$. Therefore $1.732 = 12 \times \text{tan.}^2 x$, and $\text{tan.}^2 x = \frac{1.732}{12}, = 0.14434$, and $\text{tan. } x = 0.3799$, and $x = 20^\circ 48'$, very nearly two points of leeway.

This computation, or rather the equation which gives room for it, supposes the resistances proportional to the squares of the sines of incidence. The experiments of the academy of Paris show that this supposition is not far from the truth when the angle of incidence is great. In this present case the angle of incidence on the front FG is about 70°, and the experiments just now mentioned show that the real resistance exceed the theoretical ones only $\frac{1}{100}$. But the angle of incidence on EF is only 20° 48'. Experiment shows that in this inclination the resistance is almost quadruple of the theoretical resistances. Therefore the lateral resistance is assumed much too small in the present instance. Therefore a much smaller leeway will suffice for producing a lateral resistance which will balance the lateral impulse CK, arising from the obliquity of the sail, viz. 30°. The matter of fact is, that a pretty good sailing ship, with her sails braced to this angle at a medium, will not make above 5° or 6° leeway in smooth water and easy weather; and yet in this situation the hull and rigging present a very great surface to the wind, in the most improper positions, so as to have a very great effect in increasing her leeway. And, if we compute the resistances for this leeway of 6° by the actual experiments of the French academy on that angle, we shall find the result not far from the truth; that is, the direct and lateral resistances will be nearly in the proportion of CI to ID.

It results from this view of the matter that the leeway is in general much smaller than what the usual theory assigns. We also see that, according to whatever law the resistance changes by a change of inclination, the leeway remains the same while the trim of the sails is the same.

The leeway depends only on the direction of the impulse of the wind; and this depends solely on the position of the sails with respect to the keel, whatever may be the direction of the wind. This is a very important observation, and will be frequently referred to in the progress of the present investigation. Note, however, that we are here considering only the action on the sails, and on the same sails. We are not considering the action of the wind on the hull and rigging. This may be very considerable; and it is always in a lee direction, and augments the leeway; and its influence must be so much the more sensible as it bears a greater proportion to the impulse on the sails. A ship under courses, or close-reefed topsails and courses, must make more leeway than when under all her canvas trimmed to the same angle. But to introduce this additional cause of deviation here would render the investigation too complex to be of any use.

This doctrine will be considerably illustrated by attending to the manner in which a lighter is tracked along a canal, or swings to its anchor in



a stream. The track rope is made fast to some staple or bolt E on the deck, and is passed between two of the timber-heads of the bow at D, and laid hold of at F on shore. The men or cattle walk along the path FG, the rope keeps extended in the direction DF, and the lighter arranges itself in an oblique position AB, and is thus dragged along in the direction $a\ b$, parallel to the side of the canal. Or, if the canal has a current in the opposite direction $b\ a$, the lighter may be kept steady in its place by the rope DF made fast to a post at F. In this case it is always observed that the lighter swings in a position AB, which is oblique to the stream $a\ b$. Now the force which retains it in this position, and which precisely balances the action of the stream, is certainly exerted in the direction DF; and the lighter would be held in the same manner if the rope were made fast at C amidship, without any dependence on the timber-heads at D; and it would still be held in the same position, if, instead of the single rope CF, it were riding by two ropes CG and CH, of which CH is in a direction right a-head, but oblique to the stream, and the other CG is perpendicular to CH or AB. And, drawing DI and DK perpendicular to AB and CG, the strain on the rope CH is to that on the rope CG as CI to CK. The action of the rope in these cases is precisely analogous to that of the sail $y\ Y$; and the obliquity of the keel to the directions of the motion, or to the direction of the stream, is analogous to the leeway. All this must be evident to any person accustomed to mechanical disquisitions.

A most important use may be made of this illustration. If an accurate model be made of a ship, and if it be placed in a stream of water, and ridden in this manner by a rope made fast at any point D of the bow, it will arrange itself in some determined position AB. There will be a certain obliquity to the stream, measured by the angle $Bo\ b$; and there will be a corresponding obliquity of the rope, measured by the angle FCB. Let $y\ CY$ be perpendicular to CF. Then CY will be the position of the yard or trim of the sails corresponding to the leeway $b\ C\ B$. Then, if we shift the rope to a point of the bow distant from D by a small quantity, we shall obtain a new position of the ship, both with respect to the stream and the rope; and in this way may be obtained the relation between the position of the sails and the leeway, independent of all theory, and susceptible of great accuracy; and this may be done with a variety of models suited to the most usual forms of ships.

In farther reflection on this subject we are persuaded that these experiments, instead of being made on models, may with equal ease be made on a ship of any size. Let the ship ride in a stream at a mooring D (fig. 1, Plate SEAMANSHIP), by means of a short hawser BCD from her bow, having a spring AC on it carried out from her quarter. She will swing to her moorings, till she ranges herself in a certain position AB with respect to the direction $a\ b$ of the stream; and the direction of the hawser DC will point to some point E of the line of the keel. Now it is plain, to any person acquainted with mechanical disquisitions, that the deviation $B\ E\ b$ is precisely the leeway that the ship will make when the average position of the sail is that of the line GEH perpendicular to ED; at least this will give the leeway which is produced by the sails alone. By heaving on the spring, the knot C may be brought into any other position we please; and for every new position of the knot the ship will take a new position with respect to the stream and to the hawser. And we persist in saying that more information will be got by this train of experiments than from mathematical theory; for all theories of the impulses of fluids must proceed on physical postulates, with respect to the motions of the filaments, which are exceedingly conjectural.

And it must now be farther observed that the substitution which we have made of an oblong parallelepiped for a ship, although well suited to give us clear notions of the subject, is of small use in practice; for it is next to impossible (even granting the theory of oblique impulses) to make this substitution. A ship is of a form which is not reducible to equations; and therefore the action of the water on her bow or broadside can only be had by a most laborious and intricate calculation for almost every square foot of its surface. See *Bezout's Cours de Mathem.* vol. v, p. 72, &c. And this must be different for every ship. But, which is more unlucky, when we have got a parallelepiped which will have the same proportion of direct and lateral resistance for a particular angle of leeway, it will

not answer for another leeway of the same ship; for, when the leeway changes, the figure actually exposed to the action of the water changes also. When the leeway is increased, more of the leeward is acted on by the water, and a part of the weather-bow is now removed from its action. Another parallelopiped must therefore be discovered, whose resistances shall suit this new position of the keel with respect to the real course of the ship.

We proceed in the next place to ascertain the relation between the velocity of the ship and that of the wind, modified as they may be by the trim of the sails, and the obliquity of the impulse.

Let AB (fig. 2, 3, and 4, plate SEAMANSHIP) represent the horizontal section of a ship. In place of all the drawing sails, that is, the sails which are really filled, we can always substitute one sail of equal extent, trimmed to the same angle with the keel. This being supposed attached to the yard DCD , let this yard be first of all at right angles to the keel, as represented in fig. 2. Let the wind blow in the direction WC , and let CE (in the direction WC continued) represent the velocity V of the wind. Let CF be the velocity v of the ship. It must also be in the direction of the ship's motion, because, when the sail is at right angles to the keel, the absolute impulse on the sail is in the direction of the keel; and there is no lateral impulse, and consequently no leeway. Draw EF , and complete the parallelogram $CFEe$, producing eC through the centre of the yard to w . Then wC will be the relative or apparent direction of the wind, and Ce or FE will be its apparent or relative velocity: for if the line Ce be carried along CF , keeping always parallel to its first position, and if a particle of air move uniformly along CE (a fixed line in absolute space) in the same time, this particle will always be found in that point of CE where it is intersected at that instant by the moving line Ce ; so that, if Ce were a tube, the particle of air, which really moves in the line CE , would always be found in the tube Ce . While CE is the real direction of the wind, Ce will be the position of the vane at the mast head, which will therefore mark the apparent direction of the wind, or its motion relative to the moving ship.

We may conceive this in another way. Suppose a cannon-shot fired in the direction CE at the passing ship, and that it passes through the mast at C with the velocity of the wind. It will not pass through the off-side of the ship at P , in the line CE : for, while the shot moves from C to P , the point P has gone forward, and the point p is now in the place where P was when the shot passed through the mast. The shot will therefore pass through the ship's side in the point p , and a person on board seeing it pass through C and p will say that its motion was in the line Cp .

Thus it happens that when a ship is in motion the apparent direction of the wind is always ahead of its real direction. The line wC is always found within the angle WCB . It is easy to see from the construction that the difference between the real and apparent directions of the wind is so much the more remarkable as the velocity of the ship is greater: for the angle WCw

or $F Ce$ depends on the magnitude of Ee or CF , in proportion to CE . Persons not much accustomed to attend to these matters are apt to think all attention to this difference to be nothing but affectation of nicety. They have no notion that the velocity of a ship can have any sensible proportion to that of the wind. 'Swift as the wind' is a proverbial expression; yet the velocity of a ship always bears a very sensible proportion to that of the wind, and even very frequently exceeds it. We may form a pretty exact notion of the velocity of the wind, by observing the shadows of the summer clouds flying along the face of a country, and it may be very well measured by this method. The motion of such clouds cannot be very different from that of the air below; and when the pressure of the wind on a flat surface, while blowing with a velocity measured in this way, is compared with its pressure when its velocity is measured by more unexceptionable methods, they are found to agree with all desirable accuracy. Now observations of this kind frequently repeated, show, that what we call a pleasant brisk gale blows at the rate of about ten miles an hour, or about fifteen feet in a second, and exerts a pressure of half a pound on a square foot. Mr. Smeaton has frequently observed the sails of a windmill, driven by such a wind, moving faster, nay much faster, towards their extremities, so that the sail, instead of being pressed to the frames on the arms, was taken a-back, and fluttering on them. Nay, we know that a good ship, with all her sails set and the wind on the beam, will in such a situation sail above ten knots an hour on smooth water. There is an observation made by every experienced seaman which shows this difference between the real and apparent directions of the wind very distinctly. When a ship that is sailing briskly with the wind on the beam tacks about, and then sails equally well on the other tack, the wind always appears to have shifted and come more a-head. This is familiar to all seamen. The seaman judges of the direction of the wind by the position of the ship's vanes. Suppose the ship sailing due west on the star-board tack, with the wind apparently $N.N.W.$ the vane pointing $S.S.E.$ If the ship puts about, and stands due east on the larboard tack, the vane will be found no longer to point $S.S.E.$ but perhaps $S.S.W.$, the wind appearing $N.N.E.$; and the ship must be nearly close hauled, in order to make an east course. The wind appears to have shifted four points. If the ship tacks again, the wind returns to its old quarter. We have often observed a greater difference than this. The celebrated astronomer, Dr. Bradley, taking the amusement of sailing in a pinnace on the river Thames, observed this, and was surprised at it, imagining that the change of wind was owing to the approaching to or retiring from the shore. The boatmen told him that it always happened at sea, and explained it to him in the best manner they were able. This explanation struck him, and set him a musing on an astronomical phenomenon which he had been puzzled by for some years, and which he had called the aberration of the fixed stars. Every star changes its place a small matter for half a year, and re-

turns to it at the completion of the year. He compared the stream of light from the star to the wind, and the telescope of the astronomer to the ship's vane, while the earth was like the ship, moving in opposite directions when in the opposite points of its orbit. The telescope must be always pointed a-head of the real direction of the star, in the same manner as the vane is always in a direction a-head of the wind; and thus he ascertained the progressive motion of light, and discovered the proportion of its velocity to the velocity of the earth in its orbit by observing the deviation which was necessarily given to the telescope. Observing that the light shifted its direction about 40° , he concluded its velocity to be about 11,000 times greater than that of the earth; just as the intelligent seaman would conclude, from this apparent shifting of the wind, that the velocity of the wind is about triple that of the ship. This is indeed the best method for discovering the velocity of the wind. Let the direction of the vane at the mast-head be very accurately noticed on both tacks, and let the velocity of the ship be also accurately measured. The angle between the direction of the ship's head on these different tacks, being halved, will give the real direction of the wind, which must be compared with the position of the van, in order to determine the angle contained between the real and apparent directions of the wind or the angle ECe , or half of the observed shifting of the wind, will show the inclination of its true and apparent directions. This being found, the proportion of EC to FC (fig. 4) is easily measured.

We have been very particular on this point, because, since the mutual actions of bodies depend on their relative motions only, we should make prodigious mistakes if we estimated the action of the wind by its real direction and velocity, when they differ so much from the relative or apparent.

By an easy process we might investigate the following particulars of a ship with its sails at right angles to the keel.

1. The velocity of the ship is (*cæteris paribus*) proportional to the velocity of the wind and to the sine of its incidence on the sail, when no sail becalms another. This observation is not, however, of great importance; for it is very unusual to put a ship in the situation considered hitherto; that is, with the yards square, unless she be right before the wind.

2. The surface of sail is proportional to the square of the ship's velocity directly, and to the square of the relative velocity inversely. Thus, if a ship be sailing with one-eighth of the velocity of the wind, and we would have her sail with one-fourth of it, we must quadruple the sails. This is more easily seen in another way. The velocity of the ship is proportional to the velocity of the wind; and therefore the relative velocity is also proportional to that of the wind; and the impulse of the wind is as the square of the relative velocity. Therefore, in order to increase the relative velocity by an increase of sail only, we must make this increase of sail in the duplicate proportion of the increase of velocity.

When the sails stand oblique to the keel it

might be shown that, while the trim of the sail's remains the same, the leeway and the angle of the yard and course remains the same, and that the velocity of the ship is as the sine of the angle of real incidence, that is, as the sine of the angle of the sail and the real direction of the wind.

Let the ship AB (fig. 5) hold the course CF , with the wind blowing in the direction WC , and having her yards DCD braced up to the smallest angle BCD which the rigging can admit. Let Cf be to CE as the velocity of the ship to the velocity of the wind; join FE , and draw Cw parallel to EF ; it is evident that FE is the relative motion of the wind, and wCD is the relative incidence on the sail. Draw FO parallel to the yard DC , and describe a circle through the points COF ; then we say that if the ship, with the same wind and the same trim of the same drawing sails, be made to sail on any other course Cf , her velocity along CF is to the velocity along Cf as CF is to Cf ; or, in other words, the ship will employ the same time in going from C to any point of the circumference CFO . Join fO . Then, because the angles CFO , cfO , are on the same chord CO , they are equal, and fO is parallel to dCd , the new position of the yard corresponding to the new position of the keel ab , making the angle $dCb = DCB$. Also, by the nature of the circle, the line CF is to Cf as the sine of the angle COF to the sine of the angle COf , that is (on account of the parallels CD , OF , and Ca , Of), as the sine of WCD to the sine of Wcd . But when the trim of the sails remains the same the velocity of the ship is as the sine of the angle of the sail with the direction of the wind; therefore CF is to Cf as the velocity on CF to that on Cf , and the proposition is demonstrated.

Let it now be required to determine the best course for avoiding a rock R , lying in the direction CR , or for withdrawing as fast as possible from a line of coast PQ . Draw CM through R , or parallel to PQ , and let m be the middle of the arch CmM . It is plain that m is the most remote from CM of any point of the arch CmM , and therefore the ship will recede farther from the coast PQ in any given time by holding the course Cm than by any other course.

This course is easily determined; for the arch $CmM = 360^\circ - (\text{arch } CO + \text{arch } OM)$, and the arch CO is the measure of twice the angle CFO , or twice the angle DCB , or twice $b + x$, and the arch OM measures twice the angle ECM . Thus, suppose the sharpest possible trim of the sails to be 35° , and the observed angle ECM to be 70° ; then $CO + OM$ is $70^\circ + 140^\circ$ or 210° . This being taken from 360° leaves 150° , of which the half Mm is 75° , and the angle Mcm is $37^\circ 30'$. This added to ECM makes ECm $107^\circ 30'$, leaving $WCm = 72^\circ 30'$, and the ship must hold a course making an angle of $72^\circ 30'$, with the real direction of the wind, and WCD will be $37^\circ 30'$.

This supposes no leeway. But if we know that, under all the sail which the ship can carry with safety and advantage, she makes 5° of leeway, the angle DCM of the sail and course, or $b + x$, is 40° . Then $CO + OM = 220^\circ$, which being taken from 360° leaves 140° , of which the

half is $70^\circ = Mm$, and the angle $M C m = 35^\circ$, and $E C = m 105^\circ$, and $W C m = 75^\circ$, and the ship must lie with her head 70° from the wind, making 5° of leeway, and the angle $W C D$ is 35° .

The general rule for the position of the ship is, that the line on shipboard which bisects the angle $b+x$ may also bisect the angle $W C M$, or make the angle between the course and the line from which we wish to withdraw equal to the angle between the sail and the real direction of the wind. It is plain that this problem includes that of plying to windward. We have only to suppose $E C M$, to be 90° ; then, taking our example in the same ship, with the trim and the same leeway, we have $b+x=40^\circ$. This taken from 90° leaves 50° , and $W C n=90-25=65$, and the ship's head must lie 60° from the wind, and the yard must be 25° from it. It must be observed here that it is not always eligible to select the course which will remove the ship fastest from the given line $C M$; it may be more prudent to remove from it more securely, though more slowly. In such cases, the procedure is very simple, viz. to shape the course as near the wind as is possible.

The reader will also easily see, that the propriety of these practices is confined to those courses only where the practicable trim of the sails is not sufficiently sharp. Whenever the course lies so far from the wind that it is possible to make the tangent of the apparent angle of the wind and sail double the tangent of the sail and course, it should be done.

These are the chief practical consequences which can be deduced from the theory. But we should consider how far this adjustment of the sails and course can be performed. And here occur difficulties so great as to make it almost impracticable. We have always supposed the position of the surface of the sail to be distinctly observable and measurable; but this can hardly be affirmed even with respect to a sail stretched on a yard. Here we suppose the surface of the sail to have the same inclination to the keel that the yard has. This is by no means the case; the sail assumes a concave form, of which it is almost impossible to assign the direction of the mean impulse. We believe that this is always considerably to leeward of a perpendicular to the yard, lying between $C I$ and $C E$ (fig. 4). This is of some advantage, being equivalent to a sharper trim. We cannot affirm this, however, with any confidence, because it renders the impulse on the weather-leech of the sail so exceedingly feeble as hardly to have any effect. In sailing close to the wind, the ship is kept so near that the weather-leech of the sail is almost ready to receive the wind edgewise, and to flutter or shiver. The most effective or drawing sails with a side-wind, especially when plying to windward, are the stay-sails. We believe that it is impossible to say, with any thing approaching to precision, what is the position of the general surface of a stay-sail, or to calculate the intensity and direction of the general impulse; and we affirm with confidence that no man can pronounce on these points with any exactness. If we can guess within a third or a fourth part of the truth, it is all we can pre-

tend to; and, after all, it is but a guess. Add to this, the sails coming in the way of each other, and either becalming them, or sending the wind upon them in a direction widely different from that of its free motion. All these points we think beyond our power of calculation; and therefore that it is in vain to give the seaman mathematical rules, or even tables of adjustment ready calculated, since he can neither produce that medium position of his sails that is required, nor tell what is the position which he employs.

This is one of the principal reasons why so little advantage has been derived from the very ingenious and promising disquisitions of Bouguer and other mathematicians, and has made us omit the actual solutions of the chief problems, contenting ourselves with pointing out the process to such readers as have a relish for these analytical operations. But there is another principal reason for the small progress which has been made in the theory of seamanship: this is the errors of the theory itself, which supposes the impulses of a fluid to be in the duplicate ratio of the sine of incidence. The most careful comparison which has been made between the results of this theory and matter of fact, is to be seen in the experiments made by the members of the Royal Academy of Sciences at Paris. We subjoin an abstract of them in the following table; where column first gives the angle of incidence, column second gives the impulses really observed; column third the impulses, had they followed the duplicate ratio of the sines; and column fourth the impulses, if they were in the simple ratio of the sines:—

Angle of Incid.	Impulsion observed.	Impulse as Sine ² .	Impulse as Sine.
90	1000	1000	1000
84	989	989	995
78	958	957	978
72	908	905	951
66	845	835	914
60	771	750	866
54	693	655	809
48	615	552	743
42	543	448	669
36	480	346	587
30	440	250	500
24	424	165	407
18	414	96	309
12	406	43	208
6	400	11	105

Here we see an enormous difference in the great obliquities. When the angle of incidence is only 6° , the observed impulse is forty times greater than the theoretical impulse; at 12° it is ten times greater; at 18° it is more than four times greater; and at 24° it is almost three times greater.

No wonder, then, that the deductions from this theory are so useless and so unlike what we familiarly observe. We took notice of this when we were considering the leeway of a rectangular box,

and thus saw a reason for admitting an incomparably smaller leeway than what would result from the laborious computations necessary by the theory. This error in theory has as great an influence on the impulsions of air when acting obliquely on a sail; and the experiments of M. Robins and of the chevalier Borda, on the oblique impulsions of air, are perfectly conformable (as far as they go) to those of the academicians on water. The oblique impulsions of the wind are, therefore, much more efficacious for pressing the ship in the direction of her course than the theory allows us to suppose; and the progress of a ship plying to windward is much greater, both because the oblique impulses of the wind are more effective, and because the leeway is much smaller than we suppose. Were not this the case, it would be impossible for a square-rigged ship to get to windward. The impulse on her sails when close hauled would be so trifling that she would not have a third part of the velocity which we see her acquire; and this trifling velocity would be wasted in leeway; for we have seen that the diminution of the oblique impulses of the water is accompanied by an increase of leeway. But we see that, in the great obliquities, the impulsions continue to be very considerable, and that even an incidence of 6° gives an impulse as great as the theory allows to an incidence of 40° . We may therefore, on all occasions, keep the yards more square; and the loss which we sustain by the diminution of the very oblique impulse will be more than compensated by its more favorable direction with respect to the ship's keel. Let us take an example of this:—Suppose the wind about two points before the beam, making an angle of 68° with the keel. The theory assigns 43° for the inclination of the wind to the sail, and 25° for the trim of the sail. The perpendicular impulse being supposed 1000, the theoretical impulse for 43° is 465. This, reduced in the proportion of radius to the sine of 25° , gives the impulse in the direction of the course only 197.

But if we ease off the lee-braces till the yard makes an angle of 50° with the keel, and allows the wind an incidence of no more than 18° , we have the experimented impulse 414, which, when reduced in the proportion of radius to the sine of 50° , gives an effective impulse 317. In like manner, the trim 56° , with the incidence 12° , gives an effective impulse 337; and the trim 62° , with the incidence only 6° , gives 353.

Hence it would at first sight appear that the angle DCB of 62° and WCD of 6° would be better for holding a course within six points of the wind than any more oblique position of the sails; but it will only give a greater initial impulse. As the ship accelerates, the wind apparently comes a-head, and we must continue to brace up as the ship freshens her way. It is not unusual for her to enquire half or two-thirds of the velocity of the wind; in which case the wind comes apparently a-head more than two points, when the yards must be braced up to 35° , and this allows an impulse no greater than about 7° . Now this is very frequently observed in good ships, which in a brisk gale and smooth water will go five or six knots close hauled, the ship's head six points from the wind, and the sails no

more than just full, but ready to shiver by the smallest luff. All this would be impossible by the usual theory; and in this respect these experiments of the French academy give a fine illustration of the seaman's practice. They account for what we should otherwise be much puzzled to explain; and the great progress which is made by a ship close hauled, being perfectly agreeable to what we should expect from the law of oblique impulsion deducible from these so often mentioned experiments, while it is totally incompatible with the common theory, should make us abandon the theory without hesitation, and strenuously set about the establishment of another, founded entirely on experiments. For this purpose the experiments should be made on the oblique impulsions of air on as great a scale as possible, and in as great a variety of circumstances, so as to furnish a series of impulsions for all angles of obliquity. We have but four or five experiments on this subject, viz., two by Mr. Robins, and two or three by chevalier Borda. Having thus gotten a series of impulsions, it is very practicable to raise on this foundation a practical institute, and to give a table of the velocities of a ship suited to every angle of inclination and of trim; for nothing is more certain than the resolution of the impulse perpendicular to the sail into a force in the direction of the keel, and a lateral force.

We also think that experiments might be made on a model very nicely rigged with sails, and trimmed in every different degree, which would point out the mean direction of the impulse on the sails, and the comparative force of these impulses in different directions of the wind. The method would be very similar to that of examining the impulse of the water on the hull. If this can also be ascertained experimentally, the intelligent reader will easily see that the whole motion of a ship under sail may be determined for every case. Tables may then be constructed by calculation, or by graphical operations, which will give the velocities of a ship in every different course, and corresponding to every trim of sail. And let it be here observed that the trim of the sail is not to be estimated in degrees of inclination of the yards; because, as we have already remarked, we cannot observe nor adjust the lateen sails in this way. But, in making the experiments for ascertaining the impulse, the exact position of the tacks and sheets of the sails are to be noted; and this combination of adjustments is to pass by the name of a certain trim. Thus that trim of all the sails may be called forty, whose direction is experimentally found equivalent to a flat surface trimmed to the obliquity 40° .

Having done this, we may construct a figure for each trim similar to fig. 5, where, instead of a circle, we shall have a curve C O M' F', whose chords C F, c f', &c., are proportional to the velocities in these courses; and by means of this curve we can find the point m' , which is most remote from any line C M from which we wish to withdraw; and thus we may solve all the principal problems of the art.

It will not be accounted presumption to expect more improvement from a theory founded on judicious experiments only, than from a theory

of the impulse of fluids, which is found so inconsistent with observation, and of whose fallacy all its authors, from Newton to D'Alembert, entertained strong suspicions. With these observations we conclude our discussion of the first part of the seaman's task, and now proceed to consider the means that are employed to prevent or to produce any deviations from the uniform rectilinear course which has been selected.

SECT. II.—OF THE MEANS USED TO PREVENT OR PRODUCE DEVIATIONS FROM A UNIFORM RECTILINEAR COURSE.

Here the ship is to be considered as a body in free space, convertible round her centre of inertia. For, whatever may be the point round which she turns, this motion may always be considered as compounded of a rotation round an axis passing through her centre of gravity or inertia. She is impelled by the wind and by the water acting on many surfaces differently inclined to each other, and the impulse on each is perpendicular to the surface. In order therefore that she may continue steadily in one course, it is not only necessary that the impelling forces, estimated in their mean direction, be equal and opposite to the resisting forces estimated in their mean direction; but also that these two directions may pass through one point, otherwise she will be affected as a log of wood is when pushed in opposite directions by two forces, which are equal indeed, but are applied to different parts of the log. A ship must be considered as a lever, acted on in different parts by forces in different directions, and the whole balancing each other round that point or axis where the equivalent of all the resisting forces passes. This may be considered as a point supported by this resisting force, and as a sort of fulcrum; therefore, in order that the ship may maintain her position, the energies or momenta of all the impelling forces round this point must balance each other.

When a ship sails right afore the wind, with her yards square, it is evident that the impulses on each side of the keel are equal, as also their mechanical momenta round any axis passing perpendicularly through the keel. So are the actions of the water on her bows. But when she sails on an oblique course, with her yards braced up on either side, she sustains a pressure in the direction CI (fig. 3) perpendicular to the sail. This, by giving her a lateral pressure LI , as well as a pressure CL a-head, causes her to make leeway, and to move in a line Cb inclined to CB . By this means the balance of action on the B is destroyed; the general impulse on the lee-bow is increased; and that on the weather-bow is diminished. The combined impulse is therefore no longer in the direction BC , but (in the state of uniform motion) in the direction IC .

Suppose that in an instant the whole sails are annihilated, and the impelling pressure CI , which precisely balanced the resisting pressure on the bows, removed. The ship tends, by her inertia, to proceed in the direction Cb . This tendency produces a continuation of the resistance in the opposite direction IC , which is not

directly opposed to the tendency of the ship in the direction Cb ; therefore the ship's head would immediately come up to the wind. The experienced seaman will recollect something like this when the sails are suddenly lowered when coming to anchor. It does not happen solely from the obliquity of the action on the bows: It would happen to the paralleloiped of our second diagram, which was sustaining a lateral impulsion $B \sin. 2r$, and a direct impulsion $A \cos. 2r$. These are continued for a moment after the annihilation of the sail; but being no longer opposed by a force in the direction CD , but by a force in the direction Cb , the force $B \sin. 2r$ must prevail, and the body is not only retarded in its motion, but its head turns towards the wind. But this effect of the leeway is greatly increased by the curved form of the ship's bows. This occasions the centre of effort of all the impulsions of the water on the lee side of the ship to be very far forward, and this so much the more remarkably as she is sharper afore. It is in general not much abaft the foremast. Now the centre of the ship's tendency to continue her motion is the same with her centre of gravity, and this is generally but a little before the mainmast in a direction parallel to Cb , and at the foremast by a force parallel to IC . The evident consequence of this is a tendency to come up to the wind. This is independent of all situation of the sails, provided only that they have been trimmed obliquely.

This tendency of the ship's head to windward is called gripping in the seaman's language, and is greatest in ships which are sharp forward, as we have said already. This circumstance is easily understood. Whatever is the direction of the ship's motion, the absolute impulse on that part of the bow immediately contiguous to B is perpendicular to that very part of the surface. The more acute, therefore, that the angle of the bow is, the more will the impulse on that part be perpendicular to the keel, and the greater will be its energy to turn the head to windward.

Thus we are enabled to understand or to see the propriety of the disposition of the sails of a ship. We see her crowded with sails forward, and even many sails extended far before her bow, such as the spritsail, the bowsprit topsail, the fore top-mast staysail, the jib and flying jib. The sails abaft are comparatively smaller. The sails on the mizen-mast are much smaller than those on the foremast. All the staysails hoisted on the mainmast may be considered as headsails, because their centres of effort are considerably before the centre of gravity of the ship; and, notwithstanding this disposition, it generally requires a small action of the rudder to counteract the windward tendency of the lee-bow. This is considered as a good quality when moderate; because it enables the seaman to throw the sails a-back, and stop the ship's way in a moment, if she be in danger from anything a-head; and the ship which does not carry a little of a weather-helm is always a dull sailer.

In order to judge somewhat more accurately of the action of the water and sails, suppose the ship AB (fig. 6) to have its sails on the mizenmast D , the mainmast E , and foremast F , braced

prop or trimmea alike, and that the three lines Di , Ee , Ff , perpendicular to the sails, are in the proportion of the impulses on the sails. The ship is driven a-head and to leeward, and moves in the path aCb . This path is so inclined to the line of the keel that the medium direction of the resistance of the water is parallel to the direction of the impulse. A line CI may be drawn parallel to the lines Di , Ee , Ff , and equal to their sum; and it may be drawn from such a point, C , that the actions on all the parts of the hull between C and B may balance the momenta of all the actions on the hull between C and A . This point may justly be called the centre of effort, or the centre of resistance. We cannot determine this point for want of a proper theory of the resistance of fluids. Nay, although experiments like those of the Parisian academy should give us the most perfect knowledge of the oblique impulses on a square foot, we should hardly be benefited by them; for the action of the water on a square foot of the hull at p , for instance, is so modified by the intervention of the stream of water which has struck the hull about B , and glided along the bow $Bo p$, that the pressure on p is totally different from what it would have been were it a square foot or surface detached from the rest, and presented in the same position to the water moving in the direction bC . For it is found that the resistances given to planes joined so as to form a wedge, or to curved surfaces, are widely different from the accumulated resistances, calculated for their separate parts, agreeably to the experiments of the academy on single surfaces. We therefore do not attempt to ascertain the point C by theory; but it may be accurately determined by the experiments which we have so strongly recommended, and we offer this as an additional inducement for prosecuting them.

Draw through C a line perpendicular to CI , that is, parallel to the sails; and let the lines of impulse of the three sails cut in the points, i , k , and m . This line im may be considered as a lever, moveable round C , and acted on at the points i , k , and m , by three forces. The rotatory momentum of the sails on the mizenmast is $Di \times iC$; that of the sails on the mainmast is $Ee \times kC$; and the momentum of the sails on the foremast is $Ff \times mC$. The two first tend to press forward the arm Ci , and then to turn the ship's head towards the wind. The action of the sails on the foremast tends to pull the arm Cm forward, and produce a contrary rotation. If the ship under these three sails keep steadily in her course, without the aid of the rudder, we must have $Di \times iC + Ee \times kC = Ff \times mC$. This is very possible, and is often seen in a ship under her mizen topsail, main topsail, and fore topsail, all parallel to one another, and their surfaces daily proportioned by reefing. If more sails are set, we must always have a similar equilibrium. A certain number of them will have their efforts directed from the larboard arm of the lever im lying to leeward of Ci , and a certain number will have their efforts directed from the starboard arm lying to windward of CI . The sum of the products of each of the first set, by their distances from C must be equal to

the sum of the similar products of the other set. As this equilibrium is all that is necessary for preserving the ship's position, and the cessation of it is immediately followed by a conversion; and as these states of the ship may be had by means of the three square sails only, when their surfaces are properly proportioned—it is plain that every movement may be executed and explained by their means. This will greatly simplify our future discussions. We shall therefore suppose in future that there are only the three topsails set, and that their surfaces are so adjusted by reefing that their actions exactly balance each other round that point C , of the middle line AB , where the actions of the water on the different parts of her bottom in like manner balance each other. This point C may be differently situated in the ship according to the leeway she makes, depending on the trim of the sails; and therefore, although a certain proportion of the three surfaces may balance each other in one state of leeway, they may happen not to do so in another state. But the equilibrium is evidently attainable in every case, and we therefore shall always suppose it.

It must now be observed that when this equilibrium is destroyed, as, for example, by turning the edge of the mizen topsail to the wind, which the seamen call shivering the mizen topsail, and which may be considered as equivalent to the removing the mizen topsail entirely, it does not follow that the ship will round the point C , this point remaining fixed. The ship must be considered as a free body, still acted on by a number of forces, which no longer balance each other; and she must therefore begin to turn round a spontaneous axis of conversion, which must be determined before proceeding farther. It is of importance to point out in general where this axis is situated. Therefore let G (fig. 7) be the centre of gravity of the ship. Draw the line qGv parallel to the yards, cutting Dd in q , Ee in r , CI in t , and Ff in v . While the three sails are set, the line qv may be considered as a lever acted on by four forces, viz. Dd , impelling the lever forward perpendicularly in the point q ; Ee impelling it forward in the point r ; Ff impelling it forward in the point v ; and CI impelling it backward in the point t . These forces balance each other both in respect of progressive motion and of rotatory energy: for CI was taken equal to the sum of Dd , Ee , and Ff ; so that no acceleration or retardation of the ship's progress in her course is supposed.

But, by taking away the mizen topsail, both the equilibriums are destroyed. A part Dd of the accelerating force is taken away; and yet the ship, by her inertia or inherent force, tends, for a moment, to proceed in the direction Cp with her former velocity; and by this tendency exerts for a moment the same pressure CI on the water, and sustains the same resistance IC . She must therefore be retarded in her motion by the excess of the resistance IC over the remaining impelling forces Ee and Ff ; that is, by a force equal and opposite to Dd . She will therefore be retarded in the same manner as if the mizen topsail were still set, and a force equal and opposite to its action were applied to G the centre

of gravity, and she would soon acquire a smaller velocity, which would again bring all things into equilibrium; and she would stand on in the same course, without changing either her leeway or the position of her head.

But the equilibrium of the lever is also destroyed. It is now acted on by three forces only, viz. Ee and Ff , impelling it forward in the points r and v , and IC impelling it backward in the point t . Make $rv = ro = Ee + Ff$; Ff , and make op parallel to CI and equal to $Ee + Ff$. Then we know, from the common principles of mechanics, that the force op acting at o will have the same momentum or energy to turn the lever round any point whatever as the two forces Ee and Ff applied at r and v ; and now the lever is acted on by two forces, viz. IC urging it backwards in the point t , and op urging it forwards in the point o . It must therefore turn round like a floating log, which gets two blows in opposite directions. If we now make $IC - op : op = to : tx$, or $IC - op : IC = to : ox$, and apply to the point x a force equal to $IC - op$ in the direction IC ; we know, by the common principles of mechanics, that this force $IC - op$ will produce the same rotation round any point as the two forces IC and op applied in their proper directions at t and o . Let us examine the situation of the point x .

The force $IC - op$ is evidently $= Dd$, and op is $= Ee + Ff$. Therefore $ot : tx = Dd : op$. But because, when all the sails were filled, there was an equilibrium round C , and therefore round t , and because the force op acting at o is equivalent to Ee and Ff acting at r and v , we must still have the equilibrium; and therefore we have the momentum $Dd \times qt = op \times ot$. Therefore $ot : tq = Dd : op$, and $tq = tx$. Therefore the point x is the same with the point q .

Therefore, when we shiver the mizen topsail, the rotation of the ship is the same as if the ship were at rest, and a force equal and opposite to the action of the mizen topsail were applied at q or at D , or at any point in the line Dq .

This might have been shown in another and shorter way. Suppose, all sails filled, the ship is in equilibrio. This will be disturbed by applying to D a force opposite to Dd ; and, if the force be also equal to Dd , it is evident that these two forces destroy each other, and that this application of the force dD is equivalent to the taking away of the mizen topsail. But we chose to give the whole mechanical investigation, because it gave us an opportunity of pointing out to the reader, in a case of very easy comprehension, the precise manner in which the ship is acted on by the different sails and by the water, and what share each of them has in the motion ultimately produced. We shall not repeat this manner of procedure in other cases, because a little reflection on the part of the reader will now enable him to trace the *modus operandi* through all its steps.

We now see that, in respect both of progressive motion and of conversion, the ship is affected by shivering the sail D in the same manner as if a force equal and opposite to Dd were applied at D , or at any point in the line Dd . We must now have recourse to the principles established under the article *ROTATION*.

Let p represent a particle of matter, r its radius vector, or its distance pG from an axis passing through the centre of gravity G , and let M represent the whole quantity of matter of the ship. Then its momentum of inertia is $= \int p \cdot r^2$. The ship, impelled in the point D by a force in the direction dD , will begin to turn round a spontaneous vertical axis, passing through a point S of the line gG , which is drawn through the centre of gravity G , perpendicular to the direction dD of the external force, and the distance GS of this axis from the centre of gravity is $= \frac{\int p \cdot r^2}{MGg}$ and it is taken on the opposite side of G from g , that is, S and g are on opposite sides of G .

Let us express the external force by the symbol F . It is equivalent to a certain number of pounds, being the pressure of the wind moving with the velocity V and inclination a on the surface of the sail D ; and may therefore be computed either by the theoretical or experimental law of oblique impulses. Having obtained this, we can ascertain the angular velocity of the rotation, and the absolute velocity of any given point of the ship. See *ROTATION*.

But, before we proceed to this investigation, we shall consider the action of the rudder, which operates precisely in the same manner. Let the ship AB (fig. 8) have her rudder in the position AD , the helm being hard a-starboard, while the ship sailing on the starboard tack, and making leeway, keeps on the course ab . The lee surface of the rudder meets the water obliquely. The very foot of the rudder meets it in the direction DE parallel to ab . The parts farther up meet it with various obliquities, and with various velocities, as it glides round the bottom of the ship and falls into the wake. It is absolutely impossible to calculate the accumulated impulse. We shall not be far mistaken in the deflection of each contiguous filament, as it quits the bottom and glides along the rudder; but we neither know the velocity of these filaments, nor the deflection and velocity of the filaments gliding without them. We therefore imagine that all computations on this subject are in vain. But it is enough for our purpose that we know the direction of the absolute pressure which they exert on its surface. It is in the direction Dd , perpendicular to that surface. We also may be confident that this pressure is very considerable, in proportion to the action of the water on the ship's bows, or of the wind on the sails; and we may suppose it to be nearly in the proportion of the square of the velocity of the ship in her course; but we cannot affirm it to be accurately in that proportion, for reasons that will readily occur to one who considers the way in which the water falls in behind the ship.

It is observed, however, that a fine sailer always steers well, and that all movements by means of the rudder are performed with great rapidity when the velocity of the ship is great. We shall see, by and by, that the speed with which the ship performs the angular movements is in the proportion of her progressive velocity: for we shall see that

the squares of the times of performing the evolutions are as the impulses inversely, which are as the squares of the velocities. There is perhaps no force which acts on a ship that can be more accurately determined by experiment than this. Let the ship ride in a stream or tideway whose velocity is accurately measured; and let her ride from two moorings, so that her bow may be a fixed point. Let a small tow-line be laid out from her stern or quarter at right angles to the keel, and connected with some apparatus fitted up on shore or on board another ship, by which the strain on it may be accurately measured; a person conversant with mechanics will see many ways in which this can be done. Perhaps the following may be as good as any: let the end of the tow-line be fixed to some point as high out of the water as the point of the ship from which it is given out, and let this be very high. Let a block with a hook be on the rope, and a considerable weight hung on this hook. Things being thus prepared, put down the helm to a certain angle, so as to cause the ship to sheer off from the point to which the far end of the tow-line is attached. This will stretch the rope, and raise the weight out of the water. Now heave upon the rope, to bring the ship back again to her former position, with her keel in the direction of the stream. When this position is attained, note carefully the form of the rope, that is, the angle which its two parts make with the horizon. Call this angle a . Every person acquainted with these subjects knows that the horizontal strain is equal to half the weight multiplied by the cotangent of a , or that 2 is to the cotangent of a as the weight to the horizontal strain. Now it is this strain which balances, and therefore measures, the action of the rudder, or $D e$ in fig. 8. Therefore, to have the absolute impulse $D d$, we must increase $D e$ in the proportion of radius to the secant of the angle b which the rudder makes with the keel. In a great ship, sailing six miles in an hour, the impulse on the rudder, inclined 30° to the keel, is not less than 3000 pounds. The surface of the rudder of such a ship contains nearly eighty square feet. It is not, however, very necessary to know this absolute impulse $D d$, because it is its part $D e$ alone which measures the energy of the rudder in producing a conversion. Such experiments, made with various positions of the rudder, will give its energies corresponding to these positions, and will settle that long disputed point which is the best position for turning a ship. On the hypothesis that the impulses of fluids are in the duplicate ratio of the sines of incidence, there can be no doubt that it should make an angle of $54^\circ 44'$ with the keel. But the form of a large ship will not admit of this, because a tiller of a length sufficient for managing the rudder in sailing with great velocity has not room to deviate above 30° from the direction of the keel; and in this position of the rudder the mean obliquity of the filaments of water to its surface cannot exceed 40° or 45° . A greater angle would not be of much service, for it is never for want of a proper obliquity that the rudder fails of producing a conversion.

A ship misses stays in rough weather for want

of a sufficient progressive velocity, and because her bows are beat off by the waves; and there is seldom any difficulty in wearing the ship, if she has any progressive motion. It is, however, always desirable to give the rudder as much influence as possible. Its surface should be enlarged (especially below) as much as can be done consistently with its strength and with the power of the steersman to manage it; and it should be put in the most favourable situation for the water to get at it with great velocity; and it should be placed as far from the axis of the ship's motion as possible. These points are obtained by making the stern-post very upright, as has always been done in the French dock yards. The British ships have a much greater rake; but our builders are gradually adopting the French forms, experience having taught us that their ships, when in our possession, are much more obedient to the helm than our own. In order to ascertain the motion produced by the action of the rudder, draw from the centre of gravity a line $G q$ perpendicular to $D d$ ($D d$ being drawn through the centre of effort of the rudder). Then, as in the consideration of the action of the sails, we may conceive the line $q G$ as a lever connected with the ship, and impelled by a force $D d$ acting perpendicularly at q . The consequence of this will be an incipient conversion of the ship about a vertical axis passing through some point S in the line $q G$, lying on the other side of G from q ; and we have, as

$$\text{in the former case, } G S = \frac{\int p \cdot r^2}{M \cdot G q}.$$

Thus the action and effects of the sails, and of the rudder, are perfectly similar, and are to be considered in the same manner. We see that the action of the rudder, though of a small surface in comparison of the sails, must be very great; for the impulse of water is many hundred times greater than that of the wind; and the arm $q G$ of the lever, by which it acts, is incomparably greater than that by which any of the impulses on the sails produces its effect; accordingly the ship yields much more rapidly to its action than she does to the lateral impulse of a sail.

If G were a fixed or supported axis, it would be the same thing whether the absolute force $D d$ of the rudder acts in the direction $D d$, or its transverse part $D e$ acts in the direction $D e$, both would produce the same rotation; but it is not so in a free body. The force $D d$ both tends to retard the ship's motion and to produce a rotation: It retards it as much as if the same force $D d$ had been immediately applied to the centre. And thus the real motion of the ship is compounded of a motion of the centre in a direction parallel to $D d$, and of a motion round the centre. These two constitute the motion round S .

Hence we might deduce that the times of performing similar evolutions with similar ships are proportional to the lengths of the ships when both are sailing equally fast; and since the evolutions are similar, and the forces vary similarly in their different parts, they not only describe equal angles of revolution, but also similar curves.

A small ship, therefore, works in less time and

in less room than a great ship, and this in the proportion of its length. This is a great advantage in all cases, particularly in wearing, in order to sail on the other tack close-hauled. In this case she will always be to windward and a-head of the large ship, when both are got on the other tack. It would appear at first sight that the large ship will have the advantage in tacking. Indeed the large ship is farther to windward when again trimmed on the other tack than the small ship when she is just trimmed on the other tack. But this happened before the large ship had completed her evolution, and the small ship in the mean time has been going forward on the other tack, and going to windward. She will therefore be before the large ship's beam, and perhaps as far to windward.

We have seen that the velocity of rotation is proportional, *cæteris paribus*, to $F \times G q$. F means the absolute impulse on the rudder or sail, and is always perpendicular to its surface. This absolute impulse on a sail depends on the obliquity of the wind on its surface. The usual theory says that it is as the square of the sine of incidence: but we find this is not true. We must content ourselves with expressing it by some as yet unknown function ϕ of the angle of incidence a , and call it ϕa ; and if S be the surface of the sail, and V the velocity of the wind, the absolute impulse is $n V^2 S \times \phi a$. This acts (in the case of the mizen-topsail, fig. 7) by the lever $q G$, which is equal to $D G \times \cos. D G q$, and $D G q$ is equal to the angle of the yard and keel; which angle we formerly called b . Therefore its energy in producing a rotation is $n V^2 S \times \phi a \times D G \times \cos. b$. Leaving out the constant quantities n, V^2, S , and $D G$, its energy is proportional to $\phi a \times \cos. b$. In order, therefore, that any sail may have the greatest power to produce a rotation round G , it must be so trimmed that $\phi a \times \cos. b$ may be a maximum. Thus, if we would trim the sails on the foremast, so as to pay the ship off from the wind right a-head with the greatest effect, and if we take the experiments of the French academicians as proper measures of the oblique impulses of the wind on the sail, we shall brace up the yard to an angle of 48° with the keel. The impulse corresponding to 48° is 615, and the cosine of 48° is 669. These give a product of 411435. If we brace the sail to 54.44 , the angle assigned by the theory, the effective impulse is 405274. If we make the angle 45° , the impulse is 408774. It appears then that 48° is preferable to either of the others. But the difference is inconsiderable, as in all cases of maximum a small deviation from the best position is not very detrimental. But the difference between the theory and this experimental measure will be very great when the impulses of the wind are of necessity very oblique. Thus, in tacking ship, as soon as the headsails are taken aback, they serve to aid the evolution, as is evident: but, if we were now to adopt the maxim inculcated by the theory, we should immediately round in the weather-braces so as to increase the impulse on the sail, because it is then very small; and although we by this means make yard more square, and therefore diminish the rotatory momentum of this impulse, yet the impulse is more

increased (by the theory) than its vertical lever is diminished. Let us examine this a little more particularly, because it is reckoned one of the nicest points of seamanship to aid the ship's coming round by means of the headsails; and experienced seamen differ in their practice in this manœuvre. Suppose the yard braced up to 40° , which is as much as can be usually done, and that the sail shivers (the bowlines are usually let go when the helm is put down), the sail immediately takes aback, and in a moment we may suppose an incidence of 6° . The impulse corresponding to this is 400 (by experiment), and the cosine of 40° is 766. This gives 306400 for the effective impulse. To proceed, according to the theory, we should brace the yard to 70° , which would give the wind (now 34° on the weather-bow) an incidence of nearly 36° , and the sail an inclination of 20° , to the intended motion, which is perpendicular to the keel. For the tangent of 20° is about one-half the tangent of 36° . Let us now see what effective impulse the experimental law of oblique impulsions will give for this adjustment of the sails. The experimental impulse for 36° is 480; the cosine of 70° is 342: the product is 164160, not much exceeding the half of the former. Nay, the impulse for 36° , calculated by the theory, would have been only 346, and the effective impulse only 118332. And it must be further observed that this theoretical adjustment would tend greatly to check the evolution, and in most cases would entirely mar it, by checking the ship's motion a-head, and consequently the action of the rudder, which is the most powerful agent in the evolution, for here would be a great impulse directed almost a-stern.

We are justifiable, therefore, in saying, in the beginning of this article, that a seaman would frequently find himself baffled if he were to work a ship according to the rules deduced from M. Bouguer's work; and we see by this instance of what importance it is to have the oblique impulsions of fluids ascertained experimentally. The practice of the most experienced seamen is directly the opposite to this theoretical maxim, and its success greatly confirms the usefulness of those experiments of the academicians so often praised by us.

We return to the general consideration of the rotatory motion. We found the velocity $v = \frac{F \cdot q G}{\int p r^2}$,

It is therefore proportional, *cæteris paribus*, to $q G$. We have seen in what manner $q G$ depends on the position and situation of the sail or rudder when the point G is fixed. But it also depends on the position of G . With respect to the action of the rudder, it is evident that it is so much the more powerful as it is more remote from G . The distance from G may be increased either by moving the rudder farther aft, or G farther forward. And, as it is of the utmost importance for a ship to answer her helm with the greatest promptitude, those circumstances have been attended to which distinguished fine steering ships from such as had not this quality; and it is in a great measure to be ascribed to this that, in the gradual improvement of naval architecture, the

centre of gravity has been placed far forward. Perhaps the notion of a centre of gravity did not come into the thoughts of the rude builders in early times: but they observed that those boats and ships steered best which had their extreme breadth before the middle point, and consequently the bows not so acute as the stern. This is so contrary to what one would expect that it attracted attention more forcibly; and, being somewhat mysterious, it might prompt to attempts of improvement, by exceeding in this singular maxim. We believe that it has been carried as far as is compatible with other essential requisites in a ship.

This is the chief circumstance in what is called the trim of a ship; and it were greatly to be wished that the best place for the centre of gravity could be accurately ascertained. A practice prevails which is the opposite of what we are now advancing. It is usual to load a ship so that her keel is not horizontal, but lower abaft. This is found to improve her steerage. The reason of this is obvious. It increases the acting surface of the rudder, and allows the water to come at it with much greater freedom and regularity; and it generally diminishes the gripping of the ship forward by removing a part of the bows out of the water. It has not always this effect; for the form of the harping aloft is frequently such that the tendency to gripe is diminished by immersing more of the bow in the water. But waving these circumstances, and attending only to the rotatory energy of the rudder, we see that it is of advantage to carry the centre of gravity forward. The same advantage is gained to the action of the after-sails. But, on the other hand, the action of the head-sails is diminished by it; and we may call every sail a head-sail whose centre of gravity is before the centre of gravity of the ship; that is, all the sails hoisted on the bowsprit and foremast; and the staysails hoisted on the mainmast; for the centre of gravity is seldom far before the mainmast.

Suppose that, when the rudder is put into the position *A D* (fig. 8), the centre of gravity could be shifted to *g*, so as to increase *q G*, and that this is done without increasing the sum of the products $p r^2$, it is obvious that the velocity of conversion will be increased in the proportion of $q G$ to $q g$. This is very possible by bringing to that side of the ship parts of her loading which were situated at a distance from *G* on the other side. Nay we can make this change in such a manner that $\int p r^2$ shall even be less than it was before, by taking care that every thing which we shift shall be nearer to *g* than it was formerly to *G*. Suppose it all placed in one spot *m*, and that *M* is the quantity of matter so shifted, while *M* is the quantity of matter in the whole ship. It is only necessary that $m g G^2$ shall be less than the sum of the products $p r^2$ corresponding to the matter which has been shifted. Now although the matter, which is easily moveable, is generally very small in comparison to the whole matter of the ship, and therefore can make but a small change in the place of the centre of gravity, it may frequently be brought from places

so remote that it may occasion a very sensible diminution of the quantity $\int p r^2$, which expresses the whole momentum of inertia.

This explains a practice of the seamen in small wherries or skiffs, who in putting about are accustomed to place themselves to leeward of the mast. They even find that they can aid the quick motions of these light boats by the way in which they rest on their two feet, sometimes leaning all on one foot, and sometimes on the other. And we have often seen this evolution very sensibly accelerated in a ship of war, by the crew running suddenly, as the helm is put down, to the lee-bow. And we have heard it asserted by very expert seamen that, after all attempts to wear ship (after lying-to in a storm) have failed, they have succeeded by the crew collecting themselves near the weather fore-shrouds the moment the helm was put down. It must be agreeable to the reflecting seaman to see this practice supported by undoubted mechanical principles.

SECT. III.—OF THE PRINCIPAL EVOLUTIONS.

We conclude this dissertation by describing some of the chief movements or evolutions. What we have said hitherto is intended for the instruction of the artist, by making him sensible of the mechanical procedure. The description is rather meant for the amusement of the landsman, and enabling him to understand operations that are familiar to the seaman. The latter will perhaps smile at the awkward account given of his business by one who cannot hand, reef, nor steer.

1. *To tack ship*.—The ship must first of all be kept full, that is, with a very sensible angle of incidence on the sails, and by no means hugging the wind. For, as this evolution is chiefly performed by the rudder, it is necessary to give the ship a good velocity. When the ship is observed to luff up of herself, that moment is to be caught for beginning the evolution, because she will by her inherent force continue this motion. The helm is then put down. When the officer calls out, 'Helm's a-lee,' the fore-sheet, fore-top bowline, jib, and flag sail sheets forward are let go. The jib is frequently hauled down. Thus the obstacles to the ship's head coming up to the wind by the action of the rudder are removed. If the mainsail is set, it is not unusual to clue up the weather side, which may be considered as a head-sail, because it is before the centre of gravity. The mizen must be hauled out, and even the sail braced to windward. Its power in paying off the stern from the wind conspires with the action of the rudder. It is really an aerial rudder. The sails are immediately taken a-back. In this state the effect of the mizen topsail would be to obstruct the movement, by pressing the stern the contrary way to what it did before. It is therefore either immediately braced about sharp on the other tack, or lowered. Bracing it about evidently tends to pay round the stern from the wind, and thus assists in bringing the head up to the wind. But in this position it checks the progressive motion of the ship, on which the evolution chiefly depends. For a rapid evolution, therefore, it is as well to lower the mizen-topsail. Meantime the head-sails are all a-back, and the

action of wind on them tends greatly to pay the ship round. To increase this effect it is not unusual to haul the fore-top bowline again. The sails on the mainsail are now almost becalmed; and therefore when the wind is right a-head, or a little before, the mainmast is hauled round and braced up sharp on the other tack with all expedition. The stay-sail sheets are now shifted over to their places for the other tack. The ship is now entirely under the power of the headsail and of the rudder, and their actions conspire to promote the conversion. The ship has acquired an angular motion, and will preserve it, so that now the evolution is secured she falls off apace from the wind on the other tack. The farther action of the rudder is therefore unnecessary, and would even be prejudicial, by causing the ship to fall off too much from the wind before the sails can be shifted and trimmed for sailing on the other tack. It is therefore proper to right the helm when the wind is right a-head, that is, to bring the rudder into the direction of the keel. The ship continues her conversion by her inherent force and the action of the headsails.

When the ship has fallen off about four points from the wind, the headsails are hauled round, and trimmed sharp on the other tack with all expedition; and although this operation was begun with the wind four points on the bow it will be fixed before the sails are braced up, and therefore the headsails will immediately fill. The aftersails have filled already, while the headsails were inactive, and therefore immediately check the farther falling off from the wind. All sails now draws, for the staysail sheets have been shifted over while they were becalmed or shivering in the wind. The ship now gathers way, and will obey the smallest motion of the helm to bring her close to the wind.

We have here supposed that during all this operation the ship preserves her progressive motion. She must therefore have described a curve line advancing all the while to windward. Fig. 10 is a representation of this evolution when it is performed in the completest manner. The ship standing on the course Ea , with the wind blowing in the direction WF , has her helm put hard a-lee when she is in the position A . She immediately deviates from her course, and, describing a curve, comes to the position B , with the wind blowing in the direction WF of the yards, and the square sails now shiver. The mizen-topsail is here represented braced sharp on the other tack, by which its tendency to aid the angular motion (while it checks the progressive motion) is distinctly seen. The main and foresails are now shivering, and immediately after are taken aback. The effect of this on the headsails is distinctly seen to be favorable to the conversion, by pushing the point F in the direction $F'i$; but for the same reason it continues to retard the progressive motion. When the ship has attained to the position C , the mainsail is hauled round and trimmed for the other tack. The impulse in the direction $F'i$ still aids the conversion and retards the progressive motion. When the ship has attained a position between C and D , such that the main and mizen topsails are in the direction of the wind, there is

nothing to counteract the force of the headsails, to pay the ship's head off from the wind. Nay, during the progress of the ship to this intermediate position, if any wind gets at the main or mizen topsails, it acts on their anterior surfaces, and impels the after parts of the ship away from the curve $abcd$, and thus aids the revolution. We have therefore said that when once the sails are taken fully aback, and particularly when the wind is brought right a-head, it is scarcely possible for the evolution to sail; as soon, therefore, as the main topsail (trimmed for the other tack) shivers, we are certain that the head sails will be filled by the time they are hauled round and trimmed. The staysails are filled before this, because their sheets have been shifted and they stand much sharper than the square-sails; and thus every thing tends to check the falling off from the wind on the other tack, and this no sooner than it should be done. The ship immediately gathers way, and holds on in her new course dG .

But it frequently happens that in this conversion the ship loses her whole progressive motion. This sometimes happens while the sails are shivering before they are taken fully a-back. It is evident that in this case there is little hope of success, for the ship now lies like a log, and neither sails nor rudder have any action. The ship drives to leeward like a log, and the water acting on the lee-side of the rudder checks a little the driving of the stern. The head therefore falls off again, and by and by the sails fill, and the ship continues on her former tack. This is called missing stays, and it is generally owing to the ship's having too little velocity at the beginning of the evolution. Hence the propriety of keeping the sails well filled for some little time before. Rough weather, too, by raising a wave which beats violently on the weather bow, frequently checks the first luffing of the ship, and beats her off again.

If the ship loses all her motion after the head sails have been fully taken a-back, and before we have brought the wind right a-head, the evolution becomes uncertain, but by no means desperate; for the action of the wind on the headsails will presently give her stern-way. Suppose this to happen when the ship is in the position C . Bring the helm over hard to windward, so that the rudder shall have the position represented by the small dotted line of . It is evident that the resistance of the water to the stern-way of the rudder acts in a favorable direction, pushing the stern outwards. In the mean time the action of the wind on the headsails pushes the head in the opposite direction. These actions conspire therefore in promoting the evolution; and, if the wind is right a-head, it cannot fail, but may even be completed speedily, because the ship gathers stern-way, and the action of the rudder becomes very powerful; and, as soon as the wind comes on the former lee-bow, the action of the water on the now lee-quarter will greatly accelerate the conversion. When the wind therefore has once been brought nearly right a-head, there is no risk of being baffled.

But, should the ship have lost all her head-way considerably before this, the evolution is very

uncertain; for the action of the water on the rudder may not be nearly equal to its contrary action on the lee-quarter; in which case the action of the wind on the headsails may not be sufficient to make up the difference. When this is observed, when the ship goes astern without changing her position, we must immediately throw the headsails completely a-back, and put the helm down again, which will pay off the ship's head from the wind enough to enable us to fill the sails again on the same tack, to try our fortune again; or we must boxhaul the ship, in the manner to be described by and by.

Such is the ordinary process of tacking ship; a process in which all the different modes of action of the rudder and sails are employed. To execute this evolution in the most expeditious manner, and so as to gain as much on the wind as possible, is considered as the test of an expert seaman. We have described the process which is best calculated for ensuring the movement. But if the ship be sailing very briskly in smooth water, so that there is no danger of missing stays, we may gain more to windward considerably by keeping fast the fore-top bowline, and the jib and staysail sheets, till the square-sails are all shivering; for these sails, continuing to draw with considerable force, and balancing each other tolerably fore and aft, keep up the ship's velocity very much, and thus maintain the power of the rudder. If we now let all fly when the square-sails are shivering, the ship may be considered as without sails, but exposed to the action of the water on the lee-bow; from which arises a strong pressure of the bow to windward which conspires with the action of the rudder to aid the conversion. It evidently leaves all that tendency of the bow to windward which arises from leeway, and even what was counteracted by the formerly unbalanced action of these head-staysails. This method lengthens the whole time of the evolution, but it advances the ship to windward. Observe, too, that keeping fast the fore-top bowline till the sail shivers, and then letting it go, insures the taking a-back of that sail, and thus instantly produces an action that is favorable to the evolution.

The most expert seamen, however, differ among themselves with respect to these two methods, but the first is the most generally practised in the British navy, because least liable to fail. The forces which oppose the conversion are sooner removed, and the production of a favorable action by the backing of the fore-topsail is also sooner obtained, by letting go the fore-top bowline at the first. Having entered so minutely into the description and rationale of this evolution, we have sufficiently turned the reader's attention to the different actions which co-operate in producing the motions of conversion. We shall therefore be very brief in our description of the other evolutions.

2. *To wear ship.*—When the seaman sees that his ship will not go about head to wind, but will miss stays, he must change his tack the other way; that is, by turning her head away from the wind, going a little way before the wind, and then hauling the wind on the other tack. This is called wearing or veering ship.

It is most necessary in stormy weather with little sail, or in very faint breezes, or in a disabled ship. The process is exceedingly simple; and the mere narration of the procedure is sufficient for showing the propriety of every part of it.

Watch for the moment of the ship's falling off, and then haul up the mainsail and mizen, and shiver the mizen top-sail, and put the helm a-weather. When the ship falls off sensibly (and not before) let go the bowlines. Ease away the fore-sheet, raise the fore-tack, and gather aft the weather fore-sheet, as the lee-sheet is eased away. Round in the weather-braces of the fore and main masts, and keep the yards nearly bisecting the angle of the wind and keel, so that when the ship is before the wind, the yards may be square. It may even be of advantage to round in the weather-braces of the main-topsail more than those of the headsails; for the main-mast is abaft the centre of gravity. All this while the mizen topsail must be kept shivering, by rounding in the weather-braces as the ship pays off from the wind. Then the main-topsail will be braced up for the other tack by the time that we have brought the wind on the weather quarter. After this it will be full, and will aid the evolution. When the wind is right aft, shift the jib and staysail sheets. The evolution now goes on with great rapidity; therefore briskly haul on board the fore and main tacks, and haul out the mizen, and set the mizen-staysail as soon as they will take the wind the right way. We must now check the great rapidity with which the ship comes to the wind on the other tack, by righting the helm before we bring the wind on the beam; and all must be trimmed sharp fore and aft by this time, that the headsails may take and check the coming-to. All being trimmed, stand on close by the wind.

We cannot help losing a great deal of ground in this movement. Therefore, though it be very simple, it requires much attention and rapid execution to do it with as little loss of ground as possible. One is apt to imagine at first that it would be better to keep the headsails braced up on the former tack, or at least not to round in the weather-braces so much as is here directed. When the ship is right afore the wind, we should expect assistance from the obliquity of the headsails; but the rudder being the principal agent in the evolution, it is found that more is gained by increasing the ship's velocity, than by a smaller impulse on the headsails more favorably directed. Experienced seamen differ, however, in their practice in respect of this particular.

3. *To boxhaul a ship.*—This is a process performed only in critical situations, as when a rock, or ship, or some danger, is suddenly seen right a-head, or when a ship misses stays. It requires the most rapid execution.

The ship being close-hauled on a wind, haul up the mainsail and mizen, and shiver the topsails, and put the helm hard a-lee altogether. Raise the fore-tack, let go the head bowlines, and brace about the headsails sharp on the other tack. The ship will quickly lare her way, get stern-way, and then fall off, by the joint action of the headsails and of the inverted rudder. When she has fallen off eight points, brace

the after-sails square, which have hitherto been kept shivering. This will at first increase the power of the rudder, by increasing the stern-way, and at the same time it makes no opposition to the conversion which is going on. The continuation of her circular motion will presently cause them to take the wind on their after surfaces. This will check the stern-way, stop it, and give the ship a little headway. Now shift the helm, so that the rudder may again act in conjunction with the headsails in paying her off from the wind. This is the critical part of the evolution, because the ship has little or no way through the water, and will frequently remain long in this position. But, as there are no counteracting forces, the ship continues to fall off. Then the weather-braces of the after-sails may be gently rounded in, so that the wind acting on their hinder surfaces may both push the ship a little a-head, and her stern laterally in conjunction with the rudder. Thus the wind is brought upon the quarter, and the headsails shiver. By this time the ship has acquired some headway. A continuation of the rotation would now fill the headsails, and their action would be contrary to the intended evolution. They are therefore immediately braced the other way, nearly square, and the evolution is now completed in the same manner with the wearing ship.

Some seamen brace all the sails a-back the moment that the helm is put hard a-lee, but the after-sails no more a-back than just to square the yards. This quickly gives the ship stern-way, and brings the rudder into action in its inverted direction; and they think that the evolution is accelerated by this method.

There is another problem of seamanship deserving of our attention, which cannot properly be called an evolution. This is lying-to. This is done in general by laying some sails back, so as to stop the head-way produced by others. But there is a considerable address necessary for doing this in such a way that the ship shall lie easily, and under command, ready to proceed in her course, and easily brought under weigh.

To bring-to with the fore or main-topsail to the mast, brace that sail sharp a-back, haul out the mizen, and clap the helm hard a-lee.

Suppose the fore-topsail to be a-back; the other sails shoot the ship a-head, and the lee-helm makes the ship come up to the wind, which makes it come more perpendicularly on the sail which is a-back. Then its impulse soon exceeds those on the other sails, which are now shivering, or almost shivering. The ship stands still awhile, and then falls off, so as to fill the after-sails, which again shoot her ahead, and the process is thus repeated. A ship lying-to in this way goes a good deal a-head and also to leeward. If the main-topsail be a-back, the ship shoots a-head, and comes up till the diminished impulse of the drawing sails in the direction of the keel is balanced by the increased impulse on the main-topsail. She lies a long while in this position, driving slowly to leeward; and she at last falls off by the beating of the water on her weather-bow. She falls off but little, and soon comes up again.

Thus a ship lying-to is not like a mere log,

but has a certain motion which keeps her under command. To get under weigh again, we must watch the time of falling off; and when this is just about to finish, brace about briskly, and fill the sail which is a-back. To aid this operation, the jib and fore-topmast staysail may be hoisted, and the mizen brailed up; or, when the intended course is before the wind or large, back the fore-topsail sharp, shiver the main and mizen topsail, brace up the mizen, and hoist the jib and fore-top-mast staysails altogether.

In a storm with a contrary wind, or on a lee shore, a ship is obliged to lie-to under a very low sail. Some sail is absolutely necessary, in order to keep the ship steadily down, otherwise she would kick about like a cork, and roll so deep as to strain and work herself to pieces. Different ships behave best under different sails. In a very violent gale, the three lower staysails are in general well adapted for keeping her steady, and distributing the strain. This mode seems also well adapted for wearing, which may be done by hauling down the mizen-staysail. Under whatever sail the ship is brought-to in a storm, it is always with a fitted sail, and never with one laid a-back. The helm is lashed down hard a-lee; therefore the ship shoots a-head, and comes up till the sea on her weather-bow beats her off again. Getting under weigh is generally difficult; because the ship and rigging are lofty abaft, and hinder her from falling off readily when the helm is put hard a-weather. We must watch the falling off, and assist the ship by some small headsail. Sometimes the crew get up on the weather fore-shrouds in a crowd, and thus present a surface to the wind.

These examples of the three chief evolutions will enable those who are not seamen to understand the propriety of the different steps, and also to understand the other evolutions as they are described by practical authors. We are not acquainted with any performance in our language where the whole are considered in a connected, scientific, and systematic manner.

We add the following collection and explanation of terms used in seamanship as useful not merely to seamen but to all voyagers:—

Aback. The situation of the sails, when their surfaces are pressed aft against the mast by the force of the wind.

Abaft. The hinder part of a ship, or towards the stern. It also signifies farther aft or nearer to the stern; as, the barricade stands abaft the main mast; that is, nearer to the stern.

Abaft the beam denotes the relative situation of any object with the ship, when the object is placed in any part of that arch of the horizon which is contained between a line at right angles with the keel and that point of the compass which is directly opposite to the ship's course. See *Bearing*.

Aboard. The inside of a ship.

Aboard main tack! The order to draw the lower corner of the mainsail down to the clew-tree.

About. The situation of a ship as soon as she has tacked or changed her course.

About ship! The order to the ship's crew to prepare for tacking.

Abreast. The situation of two or more ships lying with their sides parallel, and their heads equally advanced; in which case they are abreast of each other, as are the ships A B C. But, if their sides be not parallel, then that ship which is in a line with the beam of the other is said to be abreast of her, as the ship E is abreast of D and F. With regard to objects within the ship it implies on a line parallel with the beam, or at right angles with the ship's length. Abreast of any place means off or directly opposite to it.



Adrift. The state of a ship broken from her moorings, and driving about without control.

Afloat. Buoyed up by the water from the ground.

Afore. All that part of a ship which lies forward, or near the stem. It also signifies farther forward; as, the manger stands *afore* the foremast; that is, nearer to the stem.

Aft. Behind, or near the stern of a ship.

After. A phrase applied to any object in the hinder part of the ship, as the after-hatchway, the after-sails, &c.

A-ground. The situation of a ship when her bottom or any part of it rests on the ground.

A-head. Any thing which is situated on that point of the compass to which a ship's stem is directed is said to be *a-head* of her. See *Bearing*.

A-hull. The situation of a ship, when all her sails are furled and her helm is lashed to the lee side; by which she lies nearly with her side to the wind and sea, her head being somewhat inclined to the direction of the wind.

A-lee. The position of the helm when it is pushed down to the lee-side.

All in the wind. The state of a ship's sails, when they are parallel to the direction of the wind, so as to shake or shiver.

All hands hoay! The call by which all the ship's company are summoned upon deck.

Aloft. Up in the tops, at the mast-heads, or any where about the higher rigging.

Along-side. Side by side, or joined to a ship, wharf, &c.

Along-shore. Along the coast; a course which is in sight of the shore, and nearly parallel to it.

Amain. At once, suddenly: as, let go *amain!*

A-midships. The middle of a ship, either with regard to her length or breadth.

To anchor. To let the anchor fall into the ground, for the ship to ride thereby.

Anchorage. Ground, fit to hold a ship by her anchor.

The anchor is a cock-bill. The situation of the anchor, when it drops down perpendicularly from the cat-head, ready to be sunk at a moment's warning.

An-end. The position of any mast, &c., when erected perpendicularly on the deck. The top-masts are said to be *an-end* when they are hoisted up to their usual stations.

A-peek. Perpendicular to the anchor; the cable having been drawn so tight as to bring the

ship directly over it. The anchor is then said to be *a-peek*.

A-shore. On the shore, as opposed to aboard. It also means *a-ground*.

A-stern. Any distance behind a ship, as opposed to *a-head*. See *Bearing*.

At anchor. The situation of a ship riding by her anchor.

Athwart. Across the line of a ship's course.

Athwart-house. The situation of a ship when driven by accident across the fore part of another, whether they touch or are at a small distance from each other, the transverse position of the former being principally understood.

Athwart the fore foot. When any object crosses the line of a ship's course, but *a-head* of her, it is said to be *athwart her fore foot*.

Athwart-ships. Reaching, or in a direction across the ship from one side to the other.

Atrip. When applied to the anchor, it means that the anchor is drawn out of the ground, and hangs, in a perpendicular direction, by the cable or buoy-rope. The topsails are said to be *atrip* when they are hoisted up to the mast-head, or to their utmost extent.

Avast! The command to stop, or cease, in any operation.

Aweigh. The same as *atrip*, when applied to the anchor.

To back the anchor. To carry out a small anchor a head of the large one, in order to support it in bad ground, and to prevent it from loosening or coming home.

To back a-stern. In rowing, is to impel the boat with her stern foremost, by means of the oars.

To back the sails. To arrange them in a situation that will occasion the ship to move *a-stern*.

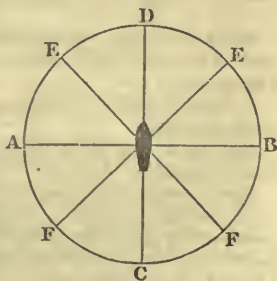
To bagpipe the mizen. To lay it *a-back*, by bringing the sheet to the mizen shrouds.

To balance. To contract a sail into a narrower compass, by folding up a part of it at one corner. Balancing is peculiar to the mizen of a ship, and the mainsail of those vessels wherein it is extended by a boom.

Bare poles. When a ship has no sail set she is under *bare poles*.

Bearing. The situation of one place from another, with regard to the points of the compass. The situation also of any distant object, estimated from some part of the ship, according to her situation:

these latter bearings are either on the beam, as A and B; *before the beam*, as the arcs AD and DB; *abaft the beam*, as the arcs AC and CB; *on the lee or weather bow*, as the lines EE; *on the lee or weather quarter*, as the lines FF; *a-head*, as the line D; or *a-stern*, as the line C.



Bear a-hand! Make haste, despatch.

To bear in with the land is when a ship sails towards the shore.

To bear off. To thrust or keep off from the ship's side, &c., any weight, when hoisting.

To bear up, or away.

The act of changing a ship's course, to make her sail more before the wind. Thus the ship A bears away from a close-hauled course, when she gets into either of the courses B and C.



Beating to windward. The making a progress against the direction of the wind, by steering alternately close hauled on the starboard and larboard tacks.

To becalm. To intercept the current of the wind, in its passage to a ship, by any contiguous object, as a shore above her sails, a high sea behind, &c.; and thus one sail is said to becalm another.

Before the beam denotes an arch of the horizon comprehended between the line of the beam and that point of the compass on which the ship stems. See *Bearing*.

To belay. To fasten a rope, by winding it several times round a cleat or pin.

To bend a sail is to affix to it its proper yard or stay.

Beneaped. See *Neaped*.

Berth. The station in which a ship rides at anchor, either alone or in a fleet; the due distance between two ships; and also a room or apartment on board for the officers of a mess.

Between decks. The space contained between any two decks of a ship.

Bilge water is that which, by reason of the flatness of a ship's bottom, lies on her floor, and cannot go to the well of the pump.

To bitt the cable is to confine the cable to the bitts, by one turn under the cross piece and another turn round the bitt-head. In this position it may be either kept fixed or it may be veered away.

Bitter. The turn of the cable round the bitts.

Bitter-end. That part of the cable which stays within board round about the bitts when the ship is at anchor.

A board is the distance run by a ship on one tack; thus they say, a good board, when a ship does not go to leeward of her course; a short board and a long board, according to the distance run.

Board-and-board. When two ships come so near as to touch each other, or when they lie side-by-side.

To board a ship. To enter an enemy's ship in an engagement.

Bold shore. A steep coast, permitting the close approach of shipping.

Boot-topping. Cleaning the upper part of a ship's bottom, or that part which lies immediately under the surface of the water; and daubing it over with tallow, or with a mixture of tallow, sulphur, resin, &c.

Both sheets aft. The situation of a ship sailing right before the wind.

Bow grace. A frame of old rope or junk, laid out at the bows, stems, and sides, of ships, to prevent them from being injured by flakes of ice.

To bouse. To pull upon any body with a tackle, in order to remove it.

Boxhauling. A particular method of veering a ship, when the swell of the sea renders tacking impracticable.

Boxing. An operation somewhat similar to boxhauling. It is performed by laying the headsails a-back, to receive the greatest force of the wind in a line perpendicular to their surfaces, in order to return the ship's head into the line of her course, after she had inclined to windward of it.

To brace the yards. To move the yards, by means of the braces, to any direction required.

To brace about. To brace the yards round for the contrary tack.

To brace sharp. To brace the yards to a position in which they will make the smallest possible angle with the keel, for the ship to have head-way.

To brace-to. To ease off the lee braces, and round in the weather braces, to assist the motion of the ship's head in tacking.

To brail up. To haul up a sail by means of the brails, for the more readily furling it when necessary.

Brails. A name peculiar to certain ropes belonging to the mizen, used to truss it up to the mast. But it is likewise applied to all the ropes which are employed in hauling up the bottoms, lower corners, and skirths, of the other great sails.

To break bulk. The act of beginning to unload a ship.

To break sheer. When a ship at anchor is forced by the wind or current from that position in which she keeps her anchor most free of herself and most firm in the ground, so as to endanger the tripping of her anchor, she is said to break her sheer.

Breaming. Burning off the filth from a ship's bottom.

Breast-fast. A rope employed to confine a ship side-ways to a wharf or to some other ship.

To bring by the lee. See *to Broach to*.

To bring to. To check the course of a ship when she is advancing, by arranging the sails in such a manner as that they shall counteract each other, and prevent her from either retreating or advancing. See *to lie to*.

To broach to: To incline suddenly to windward of the ship's course, so as to present her side to the wind, and endanger her oversetting. The difference between *broaching to* and *bringing by the lee* may be thus defined: Suppose a ship under great sail to be steering south, having the wind at N. N. W.; then west is the weather-side, and east the lee-side. If, by any accident, her head turns round to the westward, so as that her sails are all taken a-back on the weather-side, she is said to *broach to*. If, on the contrary, her head declines so far eastward as to lay her sails a-back on that side which was the lee-side, it is called *bringing by the lee*.

Broadside. A discharge of all the guns on one side of a ship both above and below.

Brokenbacked. The state of a ship which is so loosened in her frame as to drop at each end.

By the board. Over the ship's side.

By the head. The state of a ship when she is so unequally loaded as to draw more water forward than aft.

By the wind. The course of a ship as near as possible to the direction of the wind, which is generally within six points of it.

To careen. To incline a ship on one side so low down, by the application of a strong purchase to her masts, as that her bottom on the other side may be cleansed by breaming.

Castng. The motion of falling off, so as to bring the direction of the wind on either side of the ship after it had blown some time right a-head. It is particularly applied to a ship about to weigh anchor.

To cat the anchor is to hook the cat-block to the ring of the anchor and haul it up close to the cat-head.

Cat's paw. A light air of wind perceived at a distance in a calm, sweeping the surface of the sea very lightly, and dying away before it reaches the ship.

Centre. This word is applied to that squadron of a fleet, in line of battle, which occupies the middle of the line; and to that column (in the order of sailing) which is between the weather and lee columns.

Change the mizen. Bring the mizen-yard over to the other side of the mast.

Chapeling. The act of turning a ship round in a light breeze of wind when she is close-hauled, so as that she will lie the same way she did before. This is usually occasioned by negligence in steering or by a sudden change of wind.

Chase. A vessel pursued by some other.

Chaser. The vessel pursuing.

Cheerly. A phrase implying heartily, quickly, cheerfully.

To claw off. The act of turning to windward from a lee-shore to escape shipwreck, &c.

Clear is variously applied. The weather is said to be clear when it is fair and open; the sea-coast is clear when the navigation is not interrupted by rocks, &c. It is applied to cordage, cables, &c., when they are disentangled, so as to be ready for immediate service. In all these senses it is opposed to foul.

To clear the anchor is to get the cable off the flukes, and to disencumber it of ropes ready for dropping.

Clear house. When the cables are directed to their anchors without lying athwart the stem.

To clear the house is to untwist the cables when they are entangled by having either a cross, an elbow, or a round turn.

Clenched. Made fast, as the cable is to the ring of the anchor.

Close-hauled. That trim of the ship's sails when she endeavours to make a progress in the nearest direction possible towards that point of the compass from which the wind blows.

To club-haul. A method of tacking a ship when it is expected she will miss stays on a lee-shore.

To clue up. To haul up the clues of a sail to its yard by means of the clue-lines.

Coasting. The act of making a progress along the sea-coast of any country.

To coil the cable. To lay it round in a ring, one turn over another.

To come home. The anchor is said to come home when it loosens from the ground by the effort of the cable, and approaches the place where the ship floated, at the length of her moorings.

Coming to denotes the approach of a ship's head to the direction of the wind.

Course. The point of the compass on which a ship steers.

Crank. The quality of a ship, which, for want of sufficient ballast, is rendered incapable of carrying sail without being exposed to the danger of oversetting.

To crowd sail. To carry more sail than ordinary.

Cunning. The art of directing the steersman to guide the ship in her proper course.

To cut and run. To cut the cable and make sail instantly, without waiting to weigh anchor.

To deaden a ship's way. To impede her progress through the water.

Dead water. The eddy of water which appears like whirl-pools, closing in with the ship's stern as she sails on.

Dismasted. The state of a ship that has lost her masts.

Doubling. The act of sailing round or passing beyond a cape or point of land.

Doubling upon. The act of enclosing any part of a hostile fleet between two fires, or of cannonading it on both sides.

To dowse. To lower suddenly, or slacken.

To drag the anchor. To trail it along the bottom, after it is loosened from the ground.

To draw. When a sail is inflated by the wind, so as to advance the sail in her course, the sail is said to draw; and so *to keep all drawing* is to inflate all the sails.

Drift. The angle which the line of a ship's motion makes with the nearest meridian, when she drives with her side to the wind and waves, and not governed by the power of the helm. It also implies the distance which the ship drives on that line.

Driving. The state of being carried at random, as impelled by a storm or current. It is generally expressed of a ship when accidentally broke loose from her anchors or moorings.

Drop. Used sometimes to denote the depth of a sail; as the fore-top-sail drops twelve yards.

To drop anchor. Used synonymously with to anchor.

To drop a-stern. The retrograde motion of a ship.

To ease, to ease away, or to ease off. To slacken gradually; thus they say, ease the bowline, ease the sheet.

Ease the ship! The command given by the pilot, to the steersman, to put the helm hard a-lee, when the ship is expected to plunge her fore part deep in the water when close-hauled.

To edge away. To decline gradually from the shore or from the line of the course which the ship formerly held, in order to go more large.

To edge in with. To advance gradually towards the shore or any other object.

Elbow in the hause. A particular twist in the cables by which a ship is moored; explained heretofore at length.

End-for-end. A reversal of the position of any thing is turning it end-for-end. It is applied also to a rope that has run quite out of the block in which it was reeved, or to a cable which has all run out of the ship.

End on. When a ship advances to a shore, rock, &c., without an apparent possibility of preventing her, she is said to go end on for the shore, &c.

Even keel. When the keel is parallel with the horizon a ship is said to be upon an even keel.

Fair. A general term for the disposition of the wind when favorable to a ship's course.

Fair-way. The channel of a narrow bay, river, or haven, in which snips usually advance in their passage up and down.

To fall a-board of. To strike or encounter another ship when one or both are in motion.

To fall a-stern. The motion of a ship with her stern foremost.

To fall calm. To become in a state of rest by a total cessation of the wind.

To fall down. To sail or be towed down a river nearer towards its mouth.

Falling off denotes the motion of the ship's head from the direction of the wind. It is used in opposition to coming to.

Fall not off! The command to the steersman to keep the ship near the wind.

To fetch way. To be shaken or agitated from one side to another so as to loosen any thing which was before fixed.

To fill. To brace the sails so as to receive the wind in them, and advance the ship in her course, after they had been either shivering or braced a-back.

To fish the anchor. To draw up the flukes of the anchor towards the top of the bow, in order to stow it, after having been catted.

Fiat aft. The situation of the sails when their surfaces are pressed aft against the mast by the force of the wind.

To flat in. To draw in the aftermost lower corner or clue of a sail towards the middle of the ship, to give the sail a greater power to turn the vessel.

To flat in forward. To draw in the fore-sheet, jib-sheet, and fore-staysail sheet, towards the middle of the ship.

Flaw. A sudden breeze or gust of wind.

Floating. The state of being buoyed up by the water from the ground.

Flood tide. The state of a tide when it flows or rises.

Flowing-sheets. The position of the sheets of the principal sails when they are loosened to the wind, so as to receive it into their cavities more nearly perpendicular than when close-hauled, but more obliquely than when the ship sails before the wind. A ship going two or three points large has flowing sheets.

Fore. That part of a ship's frame and machinery that lies near the stem.

Fore-and-aft. Throughout the whole ship's length. Lengthways of the ship.

To fore-reach upon. To gain ground of some other ship.

To forge over. To force a ship violently over a shoal by a great quantity of sail.

Forward. Towards the fore part of a ship.

Foul is used in opposition both to clear and fair. As opposed to clear, we say *foul weather*, *foul bottom*, *foul ground*, *foul anchor*, *foul hause*. As opposed to fair, we say *foul wind*.

To founder. To sink at sea by filling with water.

To free. Pumping is said to free the ship when it discharges more water that leaks into her.

To freshen. When a gale increases it is said to freshen.

To freshen the hause. Veering out or heaving in a little cable to let another part of it endure the stress at the hause-holes. It is also applied to the act of renewing the service round the cable at the hause-holes.

Fresh way. When a ship increases her velocity she is said to get fresh way.

Full. The situation of the sails, when they are kept distended by the wind.

Full-and-by. The situation of a ship, with regard to the wind, when close-hauled; and sailing so as to steer neither too nigh the direction nor to deviate to leeward.

To furl. To wrap or roll a sail close up to the yard or stay to which it belongs, and winding a cord round it to keep it fast.

To gain the wind. To arrive on the weather-side, or to windward of, some ship or fleet in sight, when both are sailing as near the wind as possible.

To gather. A ship is said to gather on another as she comes nearer to her.

Gimbleting. The action of turning the anchor round by the stock, so that the motion of the stock appears similar to that of the handle of a gimblet, when employed to turn the wire.

To give chase to. To pursue a ship or fleet.

Goose-wings of a sail. The clues or lower corners of a ship's mainsail or foresail, when the middle part is furled or tied up to the yard.

Gripping. The inclination of a ship to run to windward of her proper course.

Grounding. The laying a ship a-shore, in order to repair her. It is also applied to running a-ground accidentally.

Ground-tackle. Every thing belonging to a ship's anchors, and which are necessary for anchoring or mooring; such as cables, hawsers, tow-lines, warps, buoy-ropes, &c.

Growng. Stretching out; applied to the direction of the cable from the ship towards the anchors; as, the cable grows on the starboard bow.

Gybing. The act of shifting any boom-sail from one side of the mast to the other.

To hail. To salute or speak to a ship at a distance.

To hand the sails. The same as to furl them.

Hand-over-hand. The pulling of any rope, by the men's passing their hands alternately one before the other or one above another. A sailor is said to go aloft hand-over-hand, when he climbs into the tops by a single rope, dexterously throwing one hand over another.

Handsomely. Gradually; as, lower handsomely.

Hank-for-hank. When two ships tack and make a progress to windward together.

Hard a-lee. The situation of the helm, when pushed close to the lee side of the ship.

Hard a-weather. The situation of the helm, when pushed close to the weather side of the ship.

To haul. To pull a single rope without the assistance of blocks.

To haul the wind. To direct the ship's course nearer to the point from which the wind blows. Thus the ship A hauls the wind, when, by the trim of her sails and the action of her rudder, she acts on either of the courses B and C.

Hause. The situation of the cables before the ship's stern, when she is moored with two anchors out from forward. It also denotes any small distance a-head of a ship, or the space between her head and the anchors employed to ride her.

Head-fast. A rope employed to confine the head of a ship to a wharf or to some other ship.

Headmost. The situation of any ship or ships which are the most advanced in a fleet.

Head-sails. All the sails which belong to the fore-mast and bowsprit.

Head-sea. When the waves meet the head of a ship in her course they are called a head-sea. It is likewise applied to a large single wave coming in that direction.

Head-to-wind. The situation of a ship when her head is turned to the point from which the wind blows, as it must when tacking.

Head-way. The motion of advancing used in opposition to stern-way.

To heave. To turn about a capstan, or other machine of the like kind, by means of bars, handspecks, &c.

To heave a-head. To advance the ship by heaving-in the cable or other rope fastened to an anchor at some distance before her.

To heave a-peek. To heave in the cable, till the anchor is a-peek.

To heave a-stern. To move a ship backwards by an operation similar to that of heaving a-head.

To heave down. To careen.

To heave in the cable. To draw the cable into the ship, by turning the capstan.

To heave in stays. To bring a ship's head to the wind, by a management of the sails and rudder, in order to get on the other tack.

To heave out. To unfurl or loose a sail; more particularly applied to the staysails; thus we say, loose the topsails and heave out the staysails.

To heave short. To draw so much of the cable into the ship as that she will be almost perpendicularly over her anchor.

To heave tight or taught. To turn the capstan round, till the rope or cable becomes straightened.

To heave the capstan. To turn it round.

To heave the lead. To throw the lead overboard, in order to find the depth of water.

To heave the log. To throw the log over-

board, in order to calculate the velocity of the ship's way.

To hecl. To stoop or incline to one side; thus they say to *heel to port*, that is, to heel to the larboard side.

Helm a-lee! A direction to put the helm over to the lee side.

Helm a-weather! An order to put the helm over to the windward side.

High-and-dry. The situation of a ship when so far run a-ground as to be seen dry upon the strand.

To hoist. To draw up any body by the assistance of one or more tackles. Pulling by means of a single block is never termed hoisting, except only the drawing of the sails upwards along the masts or stays.

To hold its own is applied to the relative situation of two ships when neither advances upon the other; each is then said to hold its own. It is likewise said of a ship which, by means of contrary winds, cannot make a progress towards her destined port, but which however keeps nearly the distance she had already run.

To hold on. To pull back or retain any quantity of rope acquired by the effort of a capstern, windlass, tackle, block, &c.

Home implies the proper situation of any object; as to haul home the topsail-sheets is to extend the bottom of the top-sail to the lower yard, by means of the sheets. In stowing a hold, a cask, &c., is said to be home, when it lies close to some other object.

To hull a ship. To fire cannon-ball into her hull within the point-blank range.

Hull-to. The situation of a ship when she lies with all her sails furled; as in trying.

In stays. See to *heave in stays*.

Keckled. Any part of a cable, covered over with old ropes, to prevent its surface from rubbing against the ship's bow or fore-foot.

To keep away. To alter the ship's course to one rather more large, for a little time, to avoid some ship, danger, &c. Keep away is likewise said to the steersman, who is apt to go to windward of the ship's course.

To keep full. To keep the sails distended by the wind.

To keep hold of the land. To steer near to or in sight of the land.

To keep off. To sail off or keep at a distance from the shore.

To keep the land aboard. The same as to *keep hold of the land*.

To keep the luff. To continue close to the wind.

To keep the wind. The same as to *keep the luff*.

Knot. A division of the log-line, answering, in the calculation of the ship's velocity, to one mile.

To labor. To roll or pitch heavily in a turbulent sea.

Laden in bulk. Freightened with a cargo not packed, but lying loose, as corn, salt, &c.

Laid-up. The situation of a ship when moored in a harbour for want of employ.

Land-fall. The first land discovered after a sea-voyage. Thus a *good land-fall* implies the

and expected or desired; a *bad land-full* the reverse.

Land-locked. The situation of a ship surrounded with land, so as to exclude the prospect of the sea, unless over some intervening land.

Larboard. The left side of a ship, looking towards the head.

Larboard-tack. The situation of a ship when sailing with the wind blowing upon her larboard side.

Laying the land. A ship which increases her distance from the coast, so as to make it appear lower and smaller, is said to lay the land.

Leading-wind. A fair wind for a ship's course.

Leak. A chink or breach in the sides or bottom of a ship, through which the water enters into the hull.

To leak. To admit water into the hull through chinks or breaches in the sides or bottom.

Lee. That part of the hemisphere to which the wind is directed, to distinguish it from the other part which is called to windward.

Lee-gage. A ship or fleet to leeward of another is said to have the lee-gage.

Lee-lurches. The sudden and violent rolls which a ship often takes to leeward, in a high sea; particularly when a large wave strikes her on the weather side.

Lee of the shore. See *under the lee of the shore.*

Lee-quarter. That quarter of a ship which is on the lee-side.

Lee-shore. That shore upon which the wind blows.

Lee-side. That half of a ship, lengthwise, which lies between a line drawn through the middle of her length and the side which is farthest from the point of wind.

To leeward. Towards that part of the horizon to which the wind blows.

Leeward ship. A ship that falls much to leeward of her course, when sailing close-hauled.

Leeward tide. A tide that sets to leeward.

Lee-way. The lateral movement of a ship to leeward of her course; or the angle which the line of her way makes with a line in the direction of her keel.

To lie along. To be pressed down sideways by a weight of sail in a fresh wind.

To lie to. To retard a ship in her course, by arranging the sails in such a manner as to counteract each other with nearly an equal effort, and render the ship almost immovable, with respect to her progressive motion or headway. Thus the position of the yards, in the figures A and B, causes the sails to counteract each other, the wind blowing upon the after surface of one and the fore-surface of the other.

A long sea. A uniform motion of long waves.

Look out. A watchful attention to some important object or event that is expected to arise. Thus persons on board of a ship are occasionally stationed to look out for signals, other ships, for land, &c.

To loose. To unfurl or cast loose any sail.

To lower. To ease down gradually.

Luff! The order to the steersman to put the helm towards the lee-side of the ship, in order to sail nearer to the wind.

To make a board. To run a certain distance upon one tack, in beating to windward.

To make foul water. To muddy the water, by running into shallow places, so that the ship's keel disturbs the mud at bottom.

To make sail. To increase the quantity of sail already set, either by unreefing or by setting others.

To make sternway. To retreat, or move with the stern foremost.

To make the land. To discover it from afar.

To make water. To leak.

To man the yard, &c. To place men on the yard, in the tops, down the ladder, &c., to execute any necessary duties.

Masted. Having all her masts complete.

To middle a rope. To double it into two equal parts.

Midships. See *a-midships.*

To miss stays. A ship is said to miss stays when her head will not fly up into the direction of the wind, in order to get her on the other tack.

Mooring. Securing a ship in a particular station by chains or cables, which are either fastened to an adjacent shore or to anchors at the bottom.

Mooring service. When a ship is moored, and rides at one cable's length, the mooring service is that which is at the first splice.

Neaped. The situation of a ship left a-ground on the height of a spring tide, so that she cannot be floated till the return of the next spring tide.

Near! or no near! An order to the steersman not to keep the ship so close to the wind.

Off-and-on. When a ship is beating to windward, so that by one board she approaches towards the shore, and by the other stands out to sea, she is said to stand off-and on shore.

Offing. Out at sea, or at a competent distance from the shore, and generally out of anchor-ground.

Offward. From the shore; as, when a ship lies a-ground and leans towards the sea, she is said to heel offward.

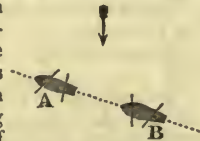
On the beam. Any distance from the ship on a line with the beams, or at right angles with the keel. See *Bearing.*

On the bow. An arch of the horizon, comprehending about four points of the compass on each side of that point to which the ship's head is directed. Thus, they say, the ship in sight bears three points on the starboard bow; that is, three points towards the right hand, from that part of the horizon which is right a head. See *Bearing.*

On the quarter. An arch of the horizon, comprehending about four points of the compass on each side of that point to which the ship's stern is directed. See *On the bow* and *Bearing.*

Open. The situation of a place exposed to the wind and sea. It is also expressed of any distant object to which the sight or passage is not intercepted.

Open hause. When the cables of a ship at



ner moorings lead straight to their respective anchors, without crossing, she is said to ride with an open hause.

Over-board. Out of the ship.

Over-grown sea is expressed of the ocean when the surges and billows rise extremely high.

To over-haul. To open and extend the several parts of a tackle, or other assemblage of ropes, thereby fitting them the better for running easily.

Over-rake. When a ship at anchor is exposed to a head-sea, the waves of which break in upon her, the waves are said to over-rake her.

Over-set. A ship is overset when her keel turns upwards.

Out-of-trim. The state of a ship when she is not properly balanced for the purposes of navigation.

Parliament-heel. The situation of a ship when she is made to stoop a little to one side, so as to clean the upper part of her bottom on the other side. See *Boot-topping*.

Parting. Being driven from the anchors, by the breaking of the cable.

To pawl the capstan. To fix the pawls, so as to prevent the capstan from recoiling, during any pause of heaving.

To pay. To daub or cover the surface of any body with pitch, tar, &c., in order to preserve it from the injuries of the weather.

To pay away or pay out. To slacken a cable or other rope, so as to let it run out for some purpose particular.

To pay off. To move a ship's head to leeward.

To peek the mizen. To put the mizen yard perpendicular by the mast.

Pitching. The movement of a ship, by which she plunges her head and after-part alternately into the hollow of the sea.

To ply to windward. To endeavour to make a progress against the direction of the wind. See *Beating to windward*.

Point-blank. The direction of a gun when levelled horizontally.

Pooping. The shock of a high and heavy sea upon the stern or quarter of a ship, when she scuds before the wind in a tempest.

Port. A name given on some occasions to the larboard side of the ship; as, the ship heels to port; top the yards to port! &c.

Port the helm! The order to put the helm over to the larboard side.

Port-last. The gunwale.

Portoise. The same as *port-last*; to ride a portoise is to ride with a yard struck down to the deck.

Press of sail. All the sail a ship can set or carry.

Prizing. The application of a lever to move any weighty body.

Purchase. Any sort of mechanic power employed in raising or removing heavy bodies.

Quarters. The several stations of a ship's crew in time of action.

Quartering. When a ship under sail has the wind blowing on her quarter.

To Raise. To elevate any distinct object at sea by approaching it; thus *to raise the land* is used in opposition to *lay the land*.

To Rake. To cannonade a ship at the stern or head, so that the balls scour the whole length of the docks.

Range of cable. A sufficient length of cable drawn upon deck before the anchor is cast loose, to admit of its sinking to the bottom without any check.

Reach. The distance between any two points on the banks of a river, wherein the current flows in an uninterrupted course.

Ready about! A command of the boatswain to the crew, and implies that all the hands are to be attentive and at their stations for tacking.

Rear. The last division of a squadron, or the last squadron of a fleet. It is applied likewise to the last ship of the line, squadron, or division.

Reef. Part of a sail from one row of eyelet-holes to another. It is applied likewise to a chain of rocks lying near the surface of the water.

Reefing. The operation of reducing a sail by taking in one or more of the reefs.

To Reeve. To pass the end of a rope through any hole, as the channel of a block, the cavity of a thimble, &c.

Rendering. The giving way or yielding to the efforts of some mechanical power. It is used in opposition to jamming or sticking.

Riding, when expressed of a ship, is the state of being retained in a particular station by an anchor and cable. Thus she is said to *ride easy* or to *ride hard*, in proportion to the strain upon her cable. She is likewise said to *ride leeward tide*, i. e. anchored in a place at a time when the tide sets to leeward, and to *ride windward tide* if the tide sets to windward: to *ride between wind and tide*, when the wind and tide are in direct opposition, causing her to ride without any strain upon her cables.

Rigging out a boom. The running out a pole at the end of a yard to extend the foot of a sail.

To rig the capstan. To fix the bars in their respective holes.

Righting. Restoring a ship to an upright position, either after she has been laid on a careen, or after she has been pressed down on her side by the wind.

To right the helm is to bring it into midships, after it has been pushed either to starboard or larboard.

Rolling. The motion by which a ship rocks from side to side like a cradle.

Rough-tree. A name applied to any mast, yard, or boom, placed in merchant ships, as a rail or fence above the vessel's side, from the quarter-deck to the fore-castle.

Rounding-in. The pulling upon any rope which passes through one or more blocks in a direction nearly horizontal; as, round-in the weather-braces.

Round-turn. The situation of the two cables of a ship when moored, after they have been several times crossed by the swinging of the ship.

Rounding-up. Similar to rounding-in; except that it is applied to ropes and blocks which act in a perpendicular direction.

To row. To move a boat with oars.

Rowing. Pulling upon a cable or rope without the assistance of tackles.

To run out a warp. To carry the end of a rope out from a ship in a boat, and fasten it to some distant object, so that the ship may be removed by pulling on it.

To sag to leeward. To make considerable leeway.

Sailing-trim is expressed of a ship when in the best state for sailing.

Scanting. The variation of the wind, by which it becomes unfavorable to a ship's making great progress, as it deviates from being large, and obliges the vessel to steer close-hauled, or nearly so.

Scudding. The movement by which a ship is carried precipitately before the wind in a tempest.

Scuttling. Cutting large holes through the bottom or sides of a ship, either to sink her or to unlade her expeditiously when stranded.

Sea. A large wave is so called. Thus they say, a *heavy sea*. It implies likewise the agitation of the ocean, as, a *great sea*. It expresses the direction of the waves, as, a *head sea*. A *long sea* means a uniform and steady motion of long and extensive waves; a *short sea*, on the contrary, is when they run irregularly, broken, and interrupted.

Sea-boat. A vessel that bears the sea firmly, without straining her masts, &c.

Sea-clothes. Jackets, trousers, &c.

Sea-mark. A point or object on shore conspicuously seen at sea.

Sea-room. A sufficient distance from the coast or any dangerous rocks, &c.: so that a ship may perform all nautical operations without danger of shipwreck.

Sending. The act of pitching precipitately into the hollow between two waves.

Setting. The act of observing the situation of any distant object by the compass.

To set sail. To unfurl and expand the sails to the wind in order to give motion to the ship.

To set up. To increase the tension of the shrouds, backstays, &c., by tackles, laniards, &c.

To settle the land. To lower in appearance. It is synonymous with *to lay the land*.

To shape a course. To direct or appoint the track of a ship in order to prosecute a voyage.

Sheering. The act of deviating from the line of the course, either to the right or left.

To sheer off. To remove to a greater distance.

To sheet-home. To haul the sheets of a sail home to the block on the yard-arm.

To shift the helm. To alter its position from starboard to port, or from port to starboard.

To ship. To take any person, goods, or article, on board. It also implies to fix any thing in its proper place; as, to *ship the oars*, to fix them in their rowlocks.

Shivering. The state of a sail when fluttering in the wind.

Shoal. Shallow.

To shoe the anchor. To cover the flukes with a piece of plank to give it firmer hold in soft ground.

To shoot a-head. To advance forward.

Shore. A general name for the sea-coast of any country.

To shorten sail. Used in opposition to *make sail*.

Slack-water. The interval between the flux and reflux of the tide, when no motion is perceptible in the water.

Slatch is applied to the period of a transitory breeze.

To slip the cable. To let it run quite out when there is not time to weigh the anchor.

Slops. Look to *Sea-clothes*.

To slue. To turn any cylindrical piece of timber about its axis without removing it. Thus, to *slue a mast* or *boom* is to turn it in its cap or boom-iron.

Sounding. Trying the depth of the water with a plummet, sunk from a ship to the bottom.

To spell the mizen. To let go the sheet and peek it up.

To spill. To discharge the wind out of the cavity or belly of a sail, when it is drawn up in the brails, in order to furl or reef it.

Split. The state of a sail rent by the violence of the wind.

Spoon-drift. A sort of showery sprinkling of the sea-water, swept from the surface of the waves in a tempest, and flying like a vapor before the wind.

Spray. The sprinkling of a sea, driven occasionally from the top of a wave; but not continual as *spoon-drift*.

To spring a mast, yard, &c. To crack a mast, yard, &c., by means of straining in blowing weather, so that it is rendered unsafe for use.

To spring a leak. When a leak first commences, a ship is said to spring a leak.

To spring the luff. A ship is said to spring her luff when she yields to the effort of the helm, by sailing nearer to the wind than before.

Squall. A sudden violent blast of wind.

Square. This term is applied to yards that are very long, as *taunt* is to high masts.

To square the yards. To brace the yards, so as to hang at right angles with the keel.

To stand on. To continue advancing.

To stand in. To advance towards the shore

To stand off. To recede from the shore.

Starboard. The right hand side of the ship when looking forward.

Starboard-tack. A ship is said to be on the starboard-tack, when sailing with the wind blowing upon her starboard-side.

Starboard the helm! An order to push the helm to the starboard-side.

To stay a ship. To arrange the sails and move the rudder, so as to bring the ship's head to the direction of the wind, in order to get her on the other tack.

Steady! The order to the helmsman to keep the ship in the direction she is going at that instant.

Steering. The art of directing the ship's way by the movement of the helm.

Steerage-way. Such degree of progressive motion of a ship as will give effect to the motions of the helm.

To stem the tide. When a ship is sailing against the tide at such a rate as enables her to overcome its power she is said to stem the tide.

Sternfast. A rope confining a ship by her stern to any other ship or wharf.

Sternmost. The farthest a-stern, opposed to *headmost*.

Sternway. The motion by which a ship falls back with her stern foremost.

Stiff. The condition of a ship when she will carry a great quantity of sail without hazard of oversetting. It is used in opposition to crank.

To stow. To arrange and dispose aship's cargo.

To stream the buoy. To let it fall from the ship's side into the water, previously to casting anchor.

To strike. To lower or let down any thing. Used emphatically to denote the lowering of colors, in token of surrender to a victorious enemy.

To strike sounding. To touch ground, when endeavouring to find the depth of water.

Surf. The swell of the sea that breaks upon shore or on any rock.

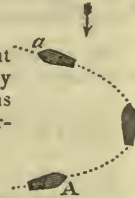
To surge the capstan. To slacken the rope heaved round upon it.

Swell. The fluctuating motion of the sea either during or after a storm.

Sweeping. The act of dragging the bight or loose part of a rope along the surface of the ground, in a harbour or road, in order to drag up something lost.

Swinging. The act of a ship's turning round her anchor at the change of wind or tide.

To tack. To turn a ship about from one tack to another, by bring her head to the wind. Thus the ship A passes from the larboard to the starboard tack a.



Taking in. The act of furling the sails. Used in opposition to setting.

Taken a-back. See *A-back*.

Taught. Improperly, though very generally, used for tight.

Tawnt. High or tall: particularly applied to masts of extraordinary length.

Tending. The turning or swinging of a ship round her anchor in a tide-way at the beginning of ebb and flood.

Thwart. See *A-thwart*.

Thwart ships. See *A-thwart ships*.

Thus! An order to the helmsman to keep the ship in her present situation, when sailing with a scant wind.

Tide-way. That part of a river in which the tide ebbs and flows strongly.

Tier. One range of any thing placed horizontally.

Topping. Pulling one of the ends of a yard higher than the other.

To tow. To draw a ship in the water by a rope fixed to a boat or other ship which is rowing or sailing on.

Trim. The state or disposition by which a ship is best calculated for the purposes of navigation.

To trim the hold. To arrange the cargo regularly.

To trim the sails. To dispose the sails in the best arrangement for the course which a ship is steering.

To trip the anchor. To loosen the anchor from the ground, either by design or accident.

Trough of the sea. The hollow between two waves.

Trying. The situation in which a ship, in a tempest, lies in the trough or hollow of the sea, particularly when the wind blows contrary to her course.

Turning to windward. That operation in sailing whereby a ship endeavours to advance against the wind.

Van. The foremost division of a fleet in one line. It is likewise applied to the foremost ship of a division.

To veer. To change a ship's course, from one tack to the other, by turning her stern to windward; thus the ship A veers from the course A to the course C. The wind is said to veer when it changes more aft.



To veer and haul. To pull a rope tight, by alternately drawing it in and slackening it.

To unballast. To discharge the ballast out of a ship.

To unbend. To take the sails off from their yards and stays: to cast loose the anchor from the cable: to untie two ropes.

To unbit. To remove the turns of a cable from off the bits.

Under foot is expressed of an anchor that is directly under the ship.

Under sail. When a ship is loosened from moorings, and is under the government of her sails and rudder.

Under way. The same as *under sail*.

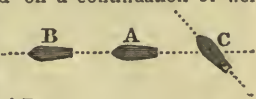
Under the lee of the shore is to be close under the shore which lies to windward of the ship.

To unmoor. To reduce a ship to the state of riding at single anchor, after she has been moored.

To unreeve. To draw a rope from out of a block, thimble, &c.

To unrig. To deprive the ship of her rigging.

Wake. The print or track impressed upon the surface of water by a ship in her course. A ship is said to be in the wake of another when she follows her in the same track, or on a line supposed to be formed on a continuation of her keel. Thus the ship A is sailing in the wake of B, and the ship C is crossing in the wake of A and B.



To ware. See *to veer*.

Warp. A small rope employed occasionally to remove a ship from one place to another.

To Warp. To remove a ship by means of a warp.

Water-borne. The state of a ship, when there is barely a sufficient depth of water to float her off from the ground.

Water-logged. The state of a ship, become heavy and inactive on the sea, from the great quantity of water leaked into her.

Water-tight. The state of a ship when not leaky.

Weather. Synonymous with *windward*.

Weather-beaten. Shattered by a storm.

Weather-bit. A turn of the cable about the end of the windlass.

Weather-gage. When a ship or fleet is to

windward of another, she is said to have the weather-gage of her.

Weather-quarter. That quarter of the ship which is on the windward side.

Weather-side. The side upon which the wind blows.

To weigh anchor. To heave up an anchor from the bottom.

To wind a ship. To change her position, bringing her head where her stern was.

Wind-road. When a ship is at anchor, and the wind, being against the tide, is so strong as to overcome its power and keep the ship to lee-

ward of her anchor, she is said to be windroad. *Wind's eye.* The point from which the wind blows.

To windward. Towards that part of the horizon from which the wind blows.

Windward-tide. A tide that sets to windward.

To work a ship. To direct the movements of a ship, by adapting the sails and managing the rudder according to the course the ship has to make.

To work to windward. To make a progress against the direction of the wind.

Yawing. The motion of a ship, when she deviates from her course to the right or left.

SEA MARKS. The erection of beacons, light-houses, and sea-marks, is a branch of the royal prerogative. By 8 Eliz. 13, the corporation of the Trinity-house are empowered to set up any beacons or sea-marks wherever they shall think them necessary; and if the owner of the land or any other person shall destroy them, or take down any steeple, tree, or other known sea-mark, he shall forfeit £100 sterling, or, in case of inability to pay it, he shall be ipso facto outlawed.

SEA MEW. See **LARUS.**

SEA NYMPHS. See **NEREIDS, NYMPHS,** and **OCEANIDES or OCEANITIDES.**

SEA ONION, or **scquill.** See **SCILLA.**

SEAPOYS, or **SEPOYS,** natives of Hindostan, serving in a military capacity under the European powers, and disciplined after the European manner. The seapoys of the English East India company compose perhaps the most numerous, regular, and best disciplined body of black troops in the world. They are raised from among the natives of the country, and consist of Moors or Mahometans, Raja-poots, Hindoos, Parias, besides many intermediate casts peculiar to themselves; the whole modelled in all corresponding particulars, and disciplined in every respect as the army of Great Britain. The seapoys are formed into complete, uniform, and regular battalions, like our marching regiments, being intended to answer fully every purpose in India of the like troops in Europe. Their arms are a firelock and bayonet; their accoutrements, or cross belts, black leather, with pouches of the same. A battalion unite in their exterior traits both the Indian and European appearance. They are brought to the utmost exactness of discipline; go through their evolutions and manœuvres with a regularity and precision equal to, and rarely surpassed by European troops. In action they are brave and steady, and have stood where Europeans have given way. Their discipline puts them on a footing with European troops, with whom they are always ready to act in concert. Their utility and services are evident; they secure to the company the internal good order and preservation of their territorial districts, which, though possible to be enforced with a strong hand by Europeans, requires numbers, and can only be conducted with that ease and address peculiar to the native forces of the country. Dr. Robertson has remarked, as a proof that the ingenuity of man has recourse in

similar situations to the same expedients, that the European powers have, in forming the establishment of these native troops, adopted the same maxims, and, probably without knowing it, have modelled their battalions of seapoys upon the same principles as Alexander the Great did his phalanx of Persians.

SEAR, *adj. & v. a.* Saxon *reapian*, to dry. Dry; not any longer green: to dry; burn; cauterize.

Some shall depart from the faith, speaking lies, having their conscience seared with a hot iron.

1 Timothy iv. 2.

The scorching flame sore singed all his face, And through his armour all his body seared.

Faerie Queene.

I have lived long enough: my May of life is fallen into the sear, the yellow leaf.

Shakspeare. Macbeth.

Ye myrtles brown, with ivy never sear. Cherish veins of good humour, and sear up those of ill.

Milton. Temple.

Some may be cherished in dry places, as in sear wood.

Ray.

I'm seared with burning steel, till the scorched marrow

Fries in the bones.

Hove's Royal Concert.

He lives, nor yet is past his manhood's prime, Though seared by toil, and something touched by time.

Byron.

SEARCE, *v. a.* Fr. *sasser.* To sift finely.

Put the finely searced powder of alabaster into a flat-bottomed and well-heated brass vessel.

Boyle.

For the keeping of meal, bolt and searce it from the bran.

Mortimer's Husbandry.

SEARCH, *v. a., v. n., & n. s.* } Fr. *chercher* ;
SEARCH'ER, *n. s.* } Ital. *circaezo* ;

of Lat. *circo.* To examine; try; explore; enquire; probe surgically; taking out (intens.): as a verb neuter, to look; make enquiry; seek: the noun substantives both correspond.

They returned from searching of the land.

Numbers xiii. 25.

Who went before you, to search you out a place to pitch your tents in?

Deuteronomy i. 33.

For the divisions of Reuben there were great searchings of heart.

Judges v. 16.

Help to search my house this one time; if I find not what I seek, let me for ever be your table sport.

Shakspeare.

With this good sword,

That ran through Cæsar's bowels, search this bosom.

Id

Satisfy me once more; once more *search* with me.
Id.

His reasons are as two grains of wheat hid in two bushels of chaff: you shall seek all day ere you find them, and when you have them they are not worth the *search*.
Id.

The *searchers* found a marvellous difference between the Anakins and themselves.
Raleigh.

Through the void immense
To *search* with wandering quest a place foretold.
Milton.

To ask or *search* I blame thee not.
Id.

The orb he roamed
With narrow *search*, and within inspection deep.
Id.

The *searchers*, who are ancient matrons sworn to their office, repair to the place where the dead corps lies, and by view of the same, and by other inquiries, examine by what disease the corps died.

Graunt's Bills of Mortality.

Who great in *search* of God and nature grow,
They best the wise Creator's praise declare.
Dryden.

Now mourn thy fatal *search*:

It is not safe to have too quick a sense.
Id.

It suffices that they have once with care sifted the matter, and *searched* into all the particulars that could give any light to the question.
Locke.

By the philosophical use of words, I mean such an use as conveys the precise notions of things, which the mind may be satisfied with in its *search* after knowledge.
Id.

The parents, after a long *search* for the boy, gave him for drowned in a canal.
Addison.

Religion has given us a more just idea of the divine nature: he whom we appeal to is truth itself, the great *searcher* of hearts, who will not let fraud go unpunished, or hold him guiltless that taketh his name in vain.
Id.

In vain we lift up our presumptuous eyes
To what our Maker to their ken denies;
The *searcher* follows fast, the object flies.
Prior.

The signs of wounds penetrating are discovered by the proportion of the *searching* candle, or probe which enters into the cavity.
Wiseman's Surgery.

With piercing eye some *search* where nature plays,
And trace the wanton through her darksome maze.
Tickel.

This common practice carries the heart aside from that which is honest in our *search* after truth.
Watts.

They may sometimes be successful to *search out* truth.
Id.

Avoid the man who practises any thing unbecoming a free and open *searcher* after truth.
Id.

SEARCHER, an officer in the customs, whose business it is to search and examine ships outward-bound, if they have any prohibited goods on board, &c.: 12 Car. II.. There are also *searchers* of leather, &c.

SEARCHER, in ordnance, is an iron-socket with branches, from four to eight in number, a little bent outwards, with small points at their ends; to this socket is fixed a wooden handle, from eight to twelve feet long, of about an inch and a quarter diameter. After the gun has been fired this *searcher* is introduced into it, and turned round, in order to discover the cavities within. The distances of these cavities, if any be found, are then marked on the outside with chalk, when another *searcher* that has only one point, about which a mixture of wax and tallow is put, is introduced to take the impression of the holes; and if there be any hole a quarter of an inch deep, or

of any considerable length, the gun is rejected as unserviceable.

SEARCH WARRANT, in law, a kind of general warrant issued by justices of peace, or magistrates of towns, for searching all suspected places for stolen goods. In some English law-books there are precedents requiring the constable to search all such suspected places as he and the party complaining shall think convenient; but such practice is condemned by lord Hale, Mr. Hawkins, and the best authorities both amongst the English and Scottish lawyers. However, in case of a complaint, and oath made of goods stolen, and that the party suspects that those goods are in a particular house, and shows the cause of such suspicion, the justice may grant a warrant to search not only that house but other suspected places; and to attach the goods, and the party in whose custody they are found, and bring them before him or some other justice, to give an account how he came by them, and to abide such order as to law shall appertain; which warrant should be directed to the constable or other public officer, who may enter a suspected house and make search.

SEAR-CLOTH, *n. s.* Sax. *searclað*, from *sear* pain, and *clað* a plaster; so that cerecloth, as written, from *cera* wax, seems to be wrong. A plaster; a large plaster.

Bees' wax is the ground of all *searcloth* salves.

Mortimer.

The SEA SERPENT is a fabulous animal, said to inhabit the northern seas about Greenland and the coasts of Norway. The following marvellous account of this monster is given by Guthrie. 'In 1756 one of them was shot by a master of a ship; its head resembled that of a horse; the mouth was large and black, as were the eyes, a white mane hanging from its neck; it floated on the surface of the water, and held its head at least two feet out of the sea; between the head and neck were seven or eight folds, which were very thick; and the length of this snake was more than 100 yards; some say fathoms. They have a remarkable aversion to the smell of castor; for which reason, ship, boat, and bark masters provide themselves with quantities of that drug, to prevent being overset, the serpent's olfactory nerves being remarkably exquisite. The particularities related of this animal would be incredible, were they not attested upon oath. Egede, a very reputable author, says that on the 6th day of July, 1734, a large and frightful sea-monster raised itself so high out of the water that its head reached above the main-top-mast of the ship; that it had a long sharp snout, broad paws, and spouted water like a whale; that the body seemed to be covered with scales; the skin was uneven and wrinkled, and the lower part was formed like a snake. The body of this monster is said to be as thick as a hog's head; his skin is variegated like a tortoise shell; and his excrement, which floats upon the surface of the water, is corrosive.'

SEA SHARK. See SQUALUS.

SEA SICKNESS, a disorder incident to most persons on their first going to sea, occasioned by the agitation of the vessel. In voyages, sea-sickness, though it continues in general only for the

first day or two, is extremely harrassing to some people at intervals, especially on any increased motion of the vessel. Sometimes, by long continuance, it causes fever, headach, quick pulse, thirst, white tongue, and a total deprivation of the retention of the stomach; evils which are always difficult to remove, and frequently terminate only with the voyage. This indisposition is considerably alleviated by a small tea-spoonful of ether, taken now and then in a glass of water, and applying some of it to the temples and nostrils. The ancient writers recommend acid fruits, bread and vegetables soaked in vinegar, after the stomach has been cleansed by vomiting; but not to attempt to suppress the vomiting until that end was obtained. An old remedy for sea-sickness, and a very common one among sailors, is a draught or two of sea-water; which, though a disgusting medicine at such a time, yet where the first passages are foul and loaded, generally produces the desired effect when the perturbation it occasions ceases.

SEASON, *n. s., v. a., &* Fr. *saison*; Span. SEASONABLE, *adj.* [*v. n.*] *sazon*; barb. Lat. SEASONABLENESS, *n. s.* *satio*. One of the SEASONABLY, *adv.* four quarters of the SEASONER, *n. s.* year; any particular SEASONING. or fit time; any short time; relish; that which gives a relish: to give a relish to; qualify; imbue; taint; fit or mature for office or use: to become fit: the derivatives corresponding.

Every oblation of thy meat-offering shalt thou season with salt. *Leviticus ii. 13.*

Mercy is *seasonable* in the time of affliction, as clouds of rain in the time of drought. *Ecclus. v. 2.*

The fairest flowers of the season
Are our carnations and streaked gillyflowers.

Shakspeare.

We'll slip you for a *season*, but our jealousy
Does yet depend. *Id. Cymbeline.*

You lack the *season* of all natures, sleep. *Id. Macbeth.*

Mercy is above this sceptered sway;
It is an attribute to God himself;
And earthly power does then shew likest God's,
When mercy *seasons* justice.

Id. Merchant of Venice.

The crow doth sing as sweetly as the lark,
When neither is attended; and, I think,
The nightingale, if she should sing by day,
When every goose is cackling, would be thought
No better a musician than the wren:
How many things by *season* *seasoned* are
To their right praise and true perfection!

Shakspeare.

We charge you, that you have contrived to take
From Rome all *seasoned* office, and to wind
Yourself unto a power tyrannical. *Id. Coriolanus.*

Breads we have of several grains, with divers
kinds of leavenings and *seasonings*; so that some do
extremely move appetites, and some do nourish so
as divers do live of them alone. *Bacon.*

The archers of his guard shot two arrows, every
pan together, against an inch board of well *seasoned*
umber. *Hayward.*

Some abound with words without any *seasoning* or
taste of matter. *Ben Jonson.*

Secure their religion, *season* their younger years
with prudent and pious principles. *Taylor.*

The *season* prime for sweetest scents and airs. *Milton.*

SEASONS. The year is remarkably diversified by the seasons, which depend upon the oblique position of the sun's path through the heavens, whereby this luminary rises to different heights above the horizon, making the days sometimes longer, and sometimes shorter, than the nights. When the sun rises highest at noon, its rays fall most nearly in the direction of a perpendicular, and consequently a greater number is received upon any given spot; their action, also, at the same time, continues the longest. These circumstances make the difference between summer and winter. It is true, that the sun is sometimes nearer to us by one thirtieth of his whole distance than at others. This is evident from his diameter being found, by actual measurement, to be one thirtieth larger at one time of the year than at the opposite. But the greatest proximity in the northern hemisphere takes place in winter; the sun is farthest from us in July, and nearest in January; and the difference between summer and winter temperature would undoubtedly be greater than it now is, if the sun were to remain at the same invariable distance through the year. In southern latitudes, mid-winter occurs in July, when the sun is at his greatest distance. This may be one cause of the excessive cold which prevails in high southern latitudes, as at Cape Horn and about the south pole, beyond that which belongs to similar latitudes on this side of the equator. It is found, that the sun does not rise so high in summer, or descend so low in winter, at the present time, as it did formerly: in other words, the obliquity of the ecliptic, which is half the difference between the sun's greatest and least meridian altitudes, is growing less and less continually, and the seasons are thus tending, though slowly, towards one unvaried spring. This diminution of the sun's utmost range north and south, since the time of the earliest observations, or during a period of 3000 years, amounts to nearly a fiftieth part of the whole quantity. This may be one of the causes of a melioration of winter, which seems to be so considerable in those places where there are the means of making a comparison of the degree of cold that has prevailed at different times. The year is naturally divided into four periods by the equinoxes and solstices, or those epochs when the day is equal to the night, namely, 21st of March and 23rd of September, and those when there is the greatest difference, namely, 21st of June and 22nd of December. Our winter, spring, summer, and autumn (q. v.) have reference to these epochs, although their commencement and termination do not correspond exactly to the astronomical times above indicated. We are apt to imagine, that the four seasons are equal to each other, and that spring and summer are together just half the year. This is not the case, however, more especially with respect to the natural periods, so denominated. If, for example, we compare the time from the 21st of March to the 23rd of September, with the rest of the year, we shall find a difference of about one week, the former being the longer. This benefit of a long summer is confined, at present, to the northern hemisphere; but this natural distinc-

tion is not a permanent one. This longer continuance of the sun in the northern hemisphere arises from the particular position of the sun's oval orbit, or path through the heavens. We have already stated that the sun is nearest to us in the winter season: in other words, the earth is nearest to the sun, and on this account its motion is more rapid, so that the part of the orbit from the autumnal equinox (September 23rd) to the vernal (March 21st), is completed a week sooner than the other half, in which the motion is slower. But the point of the sun's nearest approach, or perihelion, on the position of which the above-mentioned physical advantages depend, is in motion, whereby we are gradually losing the benefit of a prolonged summer, and in about 5000 years shall cease to enjoy any such privilege. In about 10,000 years the condition will be reversed, and the southern hemisphere will be the favored portion of the globe. It may be worth mentioning that at the date fixed by chronologists for the first residence of man upon the earth, the sun's influence was equally distributed to the two hemispheres.

SEASONING, a name given to the first illness to which persons, habituated to colder climates, are subject on their arrival in the West Indies, particularly if at first they expose themselves in a shower of rain, or too long in the sun, or in the night air; or when the body is much heated, if they drink large draughts of cold liquors, or bathe in water, or use much exercise, or commit excess in drinking wine or spirits; or by heating the body and inflaming the blood; or by subjecting themselves to any cause that may suddenly check perspiration, which at first is generally excessive. The disorders are various that constitute this seasoning of new comers, as they are called; depending on age, constitution, and habit of body. But all seasoning diseases are said to be of the inflammatory kind; and yield to antiphlogistic treatment proportioned to their violence.

SEAT, *n. s. & v. a.* Sax. *reot*; Swed. *säte*; Teut. *sell*; Lat. *sedes*. A chair; bench; any thing on which one may sit: hence a throne, or royal or episcopal seat; hence also residence; situation; site: to seat is, to place on seats, or in authority or office; fix.

The fittest and the easiest to be drawn
To our society, and to aid the war,

The rather for their seat, being next borderers
On Italy. *Ben Jonson's Catiline.*

By no means build too near a great neighbour,
which were in truth to be as unfortunately seated
on the earth as Mercury is in the heavens: for the most
part ever in combustion or obscurity, under brighter
beams than his own. *Wotton.*

Whatsoever be the manner of the world's end,
most certain it is an end it shall have, and as cer-
tain that then we shall appear before the judgment
seat of Christ, that every man may receive according
to that which he hath done in his body, whether it be
good or evil. *Habewill on Providence.*

He that builds a fair house upon an ill seat com-
miteth himself to prison. *Bacon.*

It followeth now that we find out the seat of Eden;
for in it was Paradise by God planted. *Raleigh.*

The sons of light
Hasted, resorting to the summons high,
And took their seats. *Milton.*

O earth, how like to heaven! if not preferred
Most justly, seat worthier of gods, as built
With second thoughts, reforming what was old. *Milton.*

Not Babylon,
Nor great Alcairo, such magnificence
Equalled in all their glories, to inshrine
Belus or Serapis their gods, o' seat
Their kings. *Id.*
From their foundations loosening to and fro,
They plucked the seated hills. *Id.*

The lady of the leaf ordained a feast,
And made the lady of the flower her guest;
When, lo, a bower ascended on the plain,
With sudden seats ordained, and large for either
train. *Dryden.*

In Alba he shall fix his royal seat;
And, born a king, a race of kings beget. *Id.*

The promised seat of empire shall again
Cover the mountain and command the plain. *Prior.*

The guests were no sooner seated but they entered
into a warm debate. *Arbutnot.*

A spirit of envy or opposition makes mankind un-
easy to see others of the same species seated above
them in a sort of perfection. *Pope.*

Themselves perhaps, when weary they retreat
To' enjoy cool nature in a country seat,
To' exchange the centre of a thousand trades,
For clumps, and lawns, and temples, and cascades,
May now and then their velvet cushions take,
And seem to pray for good example sake. *Cowper.*

SEATER, one of the chief deities of the an-
cient Saxons, reckoned by mythologists analogous
to the Saturn of the Greeks and Romans. Sax-
turday was named from this idol.

SEA'WARD, *adv.* Sea and Sax. *pearþ*.
Towards the sea.

The rock rushed seaward with impetuous roar,
Ingulfed, and to the' abyss the boaster bore. *Pope:*

SEA-WATER, ANALYSIS OF. In June, 1776,
Sir Torbern Bergman analysed a pint of sea-
water, taken from the depth of sixty fathoms in the
latitude of the Canary Islands, and found the so-
lid contents as follows:—Of common salt 253
½ grs., salited magnesia 69 ½ grs., and gypsum
8 ½ grs.; in all 330 ½ grs., or 5 drams, 1 scruple,
and 10 grs., and ½ parts. The principal
salts contained in sea-water are, 1st, Common
marine or culinary salt, compounded of fossil
alkali or soda and marine acid; 2dly, A salt
formed by the union of the same acid with mag-
nesian earth; and, lastly, A small quantity of
selenite. The quantity of saline matter contained
in a pint of sea-water, in the British seas, is, ac-
cording to Neumann, about one ounce in each
pint. See OCEAN and SEA.

SEA-WATER, MEDICAL USES OF. Dr. Russel
published a dissertation on the medical uses of
sea-water in diseases of the glands, &c., wherein
the author premises some observations upon the
nature of sea-water, considered as impregnated
with particles of all the bodies it passes over, such
as submarine plants, fish, salts, minerals, &c.,
and saturated with their several effluvia, to enrich
it and keep it from putrefaction; whence this fluid
is supposed to contract a soapiness; and the whole
collection, being pervaded by the sulphureous
steams passing through it, constitutes what we
call sea-water; the confessed distinguishing char-
acteristics of which are saltness, bitterness, nitro-
sity, and unctuousity: whence the author con-

cludes that it may be justly expected to contribute signally to the improvement of physic. The cases in which our author informs us we are to expect advantage from the sea-water are, 1. In all recent obstructions of the glands of the intestines and mesentery. 2. All recent obstructions of the pulmonary glands, and those of the viscera, which frequently produce consumptions. 3. All recent glandular swellings of the neck, or other parts. 4. Recent tumors of the joints, if they were not suppurated or become schirrous or cancerous, and have not carious bones for their cause. 5. Recent defluations upon the glands of the eye-lids. 6. All defluations of the skin, from an erysipelas to a lepra. 7. Diseases of the glands of the nose, with their usual companion a thickness of the lip. 8. Obstructions of the kidneys, where there is no inflammation, and the stone not large. 9. In recent obstructions of the liver, this method will be proper, where it prevents constipations of the belly, and assists other medicines directed in icterical cases. The same remedy is said to be of signal service in the bronchocele; and is likewise recommended for the prevention of those bilious colics that so frequently afflict our mariners.

The method of making sea-water fresh was long a desideratum in navigation. Many methods have been proposed for this purpose. Mr. Appleby published an account of a process which he had instituted in 1734. He distilled sea-water with a quantity of lapis infernalis and calcined bones; but this process was soon laid aside, as it was not only difficult in itself, but rendered the water unpalatable. Dr. Butler proposed soap-leys in place of Mr. Appleby's ingredients; but the water was still liable to the same objection. Dr. Stephen Hales recommended powdered chalk; but his method was expensive, and did not improve the taste of the water. Dr. Lind of Portsmouth distilled sea-water without any ingredients; but as the experiment he made was performed in a vessel containing only two quarts, with a glass receiver, in his study, nothing conclusive could be drawn from it for the use of sailors. At length Dr. Irving brought the process to a very high degree of simplicity and perfection, by which the water is obtained pure, without much expense of fuel, or a complicated apparatus. For this discovery he received a reward of £5000. The advantages of this method remain to be stated, which may be reduced to the following: 1. The abolishing all stills, still-heads, worm-pipes, and their tubes, which occupy so much space as to render them totally incompatible with the necessary business of the ship; and using in the room of these the ship's kettle or boiler, to the top whereof may occasionally be applied a simple tube, which can be easily made on board a vessel at sea, of iron plate, stove funnel, or tin sheet; so that no situation can prevent a ship from being completely supplied with the means of distilling sea-water. 2. In consequence of the principles of distillation being fully ascertained, the contrivance of the simplest means of obtaining the greatest quantity of distilled water, by making the tube sufficiently large to receive the whole column of vapor, and placing it nearly in a horizontal direction, to prevent any compression of the fluid, which takes place so much with the

common worm. 3. The adopting of the simplest, and most efficacious means of condensing vapor; for nothing more is required in the distillation but keeping the surface of the tube always wet, which is done by having some sea-water at hand, and a person to dip a mop or swab into this water, and pass it along the upper surface of the tube. By this operation the vapor contained in the tube will be entirely condensed with the greatest rapidity imaginable; for by the application of the wet mop thin sheets of water are uniformly spread, and mechanically pressed upon the surface of the hot tube; which, being converted into vapor, make way for a succession of fresh sheets; and thus, both by the evaporation and close contact of the cold water constantly repeated, the heat is carried off more effectually than by any other method yet known. 4. The carrying on the distillation without any addition, a correct chemical analysis of sea-water having evinced the futility of mixing ingredients with it, either to prevent an acid from rising with the vapor, or to destroy any bituminous oil supposed to exist in sea-water, and to contaminate the distilled water, giving it that fiery unpalatable taste inseparable from the former processes. 5. The ascertaining the proper quantity of sea-water that ought to be distilled, whereby the fresh water is prevented from contracting a noxious impregnation of metallic salts, and the vessel from being corroded and otherwise damaged by the salts caking on the bottom of it. 6. The producing a quantity of sweet and wholesome water, perfectly agreeable to the taste, and sufficient for all the purposes of shipping. 7. The taking advantage of the dressing the ship's provisions, so as to distil a very considerable quantity of water from the vapor, which would otherwise be lost, without any addition of fuel. To sum up the merits of this method in a few words:—The use of a simple tube, of the most easy construction, applicable to any ship's kettle. The rejecting all ingredients; ascertaining the proportion of water to be distilled, with every advantage of quality, saving of fuel, and preservation of boilers. The obtaining fresh water, wholesome, palatable, and in sufficient quantities. Taking advantage of the vapor which ascends in the kettle while the ship's provisions are boiling. All these advantages are obtained by the above mentioned simple addition to the common ship's kettles. But Dr. Irving proposes to introduce two further improvements. The first is a hearth, or stove, so constructed that the fire which is kept up the whole day for the common business of the ship may serve likewise for distillation; whereby a sufficient quantity of water for all the economical purposes of the ship may be obtained, with a very inconsiderable addition to the expense of fuel. The other improvement is that of substituting, even in the largest ships, cast-iron boilers, of a new construction, in the place of coppers. As soon as sea-water is put into the boiler, the tube is to be fitted either into the top or lid, round which, if necessary, a bit of wet linen may be applied, to make it fit close to the mouth of the vessel; there will be no occasion for luting, as the tube acts like a funnel in carrying off the vapor. When the water begins to

boil, the vapor should be allowed to pass freely for a minute, which will effectually clean the tube and upper part of the boiler. The tube is afterwards to be kept constantly wet, by passing a mop or swab, dipped in sea-water, along its upper surface. The waste water running from the mop may be carried off by means of a board made like a spout, and placed beneath the tube. The distillation may be continued till three-fourths of the water be drawn off, and no further. This may be ascertained either by a gauge-rod put into the boiler, or by measuring the water distilled. The brine is then to be let out. Water may be distilled in the same manner while the provisions are boiling. When the tube is made on shore, the best substance for the purpose is thin copper well tinned, this being more durable in long voyages than tin-plates. Instead of mopping, the tube, if required, may have a case made also of copper, so much larger in diameter as to admit a thin sheet of water to circulate between them by means of a spiral copper thread, with a pipe of an inch diameter at each end of the case; the lower for receiving cold water, and the upper for carrying it off when heated.

SEA-WATER, METHOD OF PRESERVING. As it is sometimes necessary to preserve sea-water in casks, for bathing and other purposes, it is of importance to know how to keep it from putrefaction. Many experiments were made to determine this point by Mr. Henry, and are recorded in the first volume of the *Memoirs of the Literary and Philosophical Society of Manchester*. His first experiment we shall here present to our readers:—'To one quart of sea-water were added two scruples of fresh quicklime; to another half an ounce of common culinary salt; and a third was kept as a standard without any addition. The mouths of the bottles being loosely covered with paper, they were exposed to the action of the sun in some of the hottest weather in summer. In about a week the standard became very offensive; and the water, with the additional quantity of salt, did not continue sweet many hours longer; whereas that with lime continued many months without ever exhibiting the least marks of putridity.' When he added a dram more of quicklime, the whole of the magnesia contained in the water was separated; and, when a further addition was made, a lime-water was immediately formed. He therefore concluded that two scruples of quicklime are sufficient to preserve a quart of sea-water. The proportions, however, may vary a little, according to the strength of the quick-lime employed.

SEA-WEED, or SEA-WARE, algamarina, is commonly used as a manure on the sea-coast, where it can be produced in abundance. The best sort grows on rocks and is that from which kelp is made. The next to this is called the peasy sea-weed; and the worst is that with a long stalk. In the neighbourhood of Berwick, the farmers mix it with stable dung and earth, and thus obtain a great quantity of excellent manure. Sea-weed is found also to be a very fit manure for gardens, as it not only enriches them, but destroys the vermin by which they are usually infested. See **ALGÆ**.

SEBA (Albert), a learned Dutch naturalist, born at Etzeel, in East Friesland. He wrote an extensive work on natural history, published at Amsterdam in 1734, in 3 vols. folio. The explanations are in Latin and French.

SEBACIC ACID, the acid procured from fat. See **CHEMISTRY**, Index. Dr. Thomson gives the following account of it:—'Chemists had long suspected that an acid could be obtained from tallow, on account of the acrid nature of the fumes which it emits at a high temperature; but it was M. Grutzmacher who first demonstrated it in a dissertation *De Ossium Medulla*, published in 1748. M. Rhodes mentioned it in 1753. Segner published a dissertation on it in 1754; and Crell examined its properties very fully in two dissertations in the *Philosophical Transactions* for 1780 and 1782. It was called at first acid of fat. It may be procured by the following process:—Mix quick-lime with melted tallow, and keep the mixture for some time in a melting heat. Then let it cool, and wash it in a great quantity of water. Evaporate this water, and there will be obtained a brown salt, which is impure sebate of lime. Heat this pretty strongly in a crucible, dissolve it in water, filter it, separate the excess by carbonic acid; then evaporate. Pure crystallised sebate of lime is obtained. Mix this with sulphuric acid, and distil with a moderate heat. Sebatic acid comes over. It is a liquid of an acid, sharp, bitterish taste. When concentrated, it exhales a white smoke, which has a strong, disagreeable, peculiar odor, and irritates the eyes and throat. It reddens tincture of turnsole. Heat causes it to assume a yellowish color. When distilled, it yields a brownish liquid, and, when distilled to dryness, it leaves a little charcoal. When passed through a red-hot tube, it is decomposed and converted into water, carbonic acid, carbonated hydrogen gas, and charcoal. It combines with alkalies, earths, and metallic oxides, and forms salts, called sebrates. It oxidates silver, mercury, copper, iron, lead, tin, zinc, antimony, and manganese. It does not act upon bismuth, cobalt, or nickel. When mixed with nitric acid it dissolves gold. Its affinities, according to Morveau, are as follows:—barytes, potassa, soda, lime, magnesia, ammonia, alumina, metallic oxides.'

SEBASTIAN, king of Portugal, the posthumous son of the infant John, by Joanna, daughter of the emperor Charles V., succeeded to the crown, at three years of age, in 1577, on the death of his grandfather John III. At the age of twenty he undertook a romantic expedition against the Moors in Africa, in which, however, he performed nothing of consequence: but, impressed with this object, on the application of Muley Hamet, king of Fez and Morocco, to assist him against his uncle, Muley Moloch, he determined to renew his attempt against the infidels. He accordingly embarked with the flower of his nobility and military in the summer of 1578 and proceeded to Arzilla. Here he was met by an overwhelming force, headed by Muley Moloch in person, although so debilitated by sickness as to be carried on a litter. In the battle that ensued the Portuguese army broke the first line of the Moors; and Muley in rally-

ing his men, was so exhausted, that he died in the arms of his guards; his last and much extolled action being to lay his fingers to his lips, as an injunction to keep his death secret, in order not to depress the spirits of his army. Sebastian, on the other hand, fought with great bravery, and had two horses killed under him. He at length, after his attendants were all slain, disappeared, nor was it ever known what became of him, although a body, supposed to be his, was restored by the Moors, and buried at Belem. Not more than fifty Portuguese are said to have survived this expedition; yet such was the attachment of the people to Sebastian's memory, that a disposition to believe that he would appear again prevailed for many years. Various impostors took advantage of it.

SEBASTIAN, a town in the intendency of Sonora, Mexico, situated on the skirt of a mountain. It is of a hot temperature, and the surrounding territory abounds in maize; but the principal pursuit is its fisheries, which are carried on to a great extent on the Mazatlan. They consist of mulattoes, mestizos, and Indians. Long. 106° W., lat. 24° N.

SEBASTIAN, a river of the New Kingdom of Granada, in the province of Santa Martha, which has a northern course and enters the swamp of Santa Martha.

SEBASTIAN, SAN, DE BUENAVISTA, a decayed town of New Granada, 140 miles S.S.W. of Carthagena, at the mouth of the gulf of Darien. It was formerly of much importance.

SEBASTIAN (St.), a considerable town and fortress of Spain, the capital of the district of Guipuscoa, in the province of Biscay. It stands on a bay between two inlets, forming a peninsula at the mouth of the river Urumea. It has long been a place of great strength: the town being fortified with bastions and half moons, and the citadel standing on a conical eminence, accessible only by a path winding round it in a spiral form. The harbour is small and capable of containing only about thirty merchantmen; but it is nearly enclosed by the two moles, and protected from winds by the adjacent eminences. Here are three churches, five convents, and an hospital. The streets are wide, straight, and well paved; and the houses respectable. St. Sebastian exports ships' anchors, cables, and leather, the manufactures in the town. The environs are pleasant, the view commanding both the sea and the Pyrenees. The principal walk is in a delightful vale to the north. St. Sebastian has been often taken by the French, being only ten miles from the Spanish frontier; it fell into their hands in the war of 1719, in the revolutionary contest of 1794, and in Buonaparte's invasion in 1808. On the last occasion it remained five years in their possession; and when the victory of Vittoria had opened to the British the prospect of its capture, the French had time to throw into it a garrison capable of making an obstinate defence. An attempt on the part of our army to take it by assault on the 25th of July, 1813, was repulsed with great loss. It became necessary to make approaches with great caution, and even to incur a severe sacrifice of lives in the final attack, on the 31st of August, when it fell into the hands

of the British. A fire burst out in the town at this time, which, joined to the preceding bombardment, laid it almost entirely in ashes; but it was afterwards rebuilt. Inhabitants about 12,000. Eight miles west of Fontarabia, and forty east of Bilbao.

SEBASTIAN (St.), a sea-port, and capital of the island of Gomera, one of the Canaries.

SEBASTIAN (St.), an island in the Atlantic, separated from the coast of Brasil by a strait about three leagues wide. Lat. 23° 45' S. It is said to produce the best sugar, rum, and pulse, as well as the finest cattle in Brasil; and is situated on a low tract of ground about 300 yards from the beach. The inhabitants subsist chiefly on fish. The town has been noted for its very large canoes scooped out of the solid timber.

SEBASTIAN, (St.) DE LOS REYES, a city of Columbia, in the Caraccas, standing on the shore of the river Guarico. It was founded towards the end of the sixteenth century: it is rendered rather disagreeable for residence, by the very great heats which the continual and strong breezes from the north-east faintly temper. The water is abundant. The soil of its jurisdiction, fit for many commodities, produces scarcely any thing but maize, but its pastures feed large herds of cattle. Population 3500. Twenty-eight leagues S. $\frac{1}{2}$ S.W. of Caraccas.

SEBASTIANO, an eminent Venetian painter, called Del Piombo, from an office in the lead mines given him by pope Clement VII., was born in 1485. He was first a disciple of old John Bellini; continued his studies under Giorgione; and, having attained an excellent manner of coloring, went to Rome, where he obtained the favor of Michael Angelo. He invented the art of preparing plaster-walls for oil-painting; but was so slow in his work that other hands were often employed to finish what he began. He died in 1547.

SEBAT, or SHEBET, in chronology, the fifth month of the civil year among the Jews, and the 11th of their sacred year. It consists of thirty days, and begins on January, and ends in February. The Jews observe two fasts in it; on the tenth for the death of the elders, who outlived Joshua, and on the 17th for the people of Gibeah. Judges xx.

SEBENICO, an old town of Austrian Dalmatia, near the mouth of the Kerka. It stands on the slope of a rocky hill, extending to the edge of the water, and is surrounded by fortifications. The Kerka here expands into a lake which forms an excellent and capacious harbour, protected by a fort, and communicating with the Adriatic by means of a short and narrow strait. The town is defended by two forts on the top of the hill. It is said to have been more considerable in the sixteenth century, but has long been a bishop's see, and has a Gothic cathedral, admired for the bold construction of its roof, formed of marble slabs. The environs are fertile. Inhabitants 6300. Thirty-seven miles south-east of Zara, and 143 north-west of Ragousa.

SEBOO, or SABU, a considerable river of Morocco, which rises in the Atlas, near the frontier, traverses the province of Fez, passing a little to the north of the capital, and then falls into the

sea. The mouth is, however, much incommoded by sand.

SECALE, rye, in botany, a genus of the digynia order, and triandria class of plants; natural order fourth, gramina: cal. a glume of two leaves, which are opposite to one another, erect, linear, pointed, and less than the corolla: con. consists of two valves, the exterior of which ends in a beard. There are several species.

I. *S. cereale*, common rye, has glumes with rough fringes. It is a native of the island of Candia, was introduced into England many ages ago, and is the only species of rye cultivated in this kingdom. There are, however, two varieties, the winter and spring rye. I. The winter rye, which is larger in the grain than the spring rye, is sown in autumn, at the same time with wheat, and sometimes mixed with it; but, as the rye ripens sooner than the wheat, this method must be very exceptionable. II. The spring rye, sown along with the oats, usually ripens as soon as the winter rye; but the grain produced is lighter, and it is therefore seldom sown except where the autumnal crop has failed. Rye is commonly sown on poor, dry, limestone, or sandy soils, where wheat will not thrive. By continuing to sow it on such a soil for two or three years, it will at length ripen a month earlier than that which has been raised for years on strong cold ground. Rye is commonly used for bread, either alone or mixed with wheat. This mixture is called *meslin*, and was formerly a very common crop in some parts of Britain. Mr. Marshall tells us, that the farmers in Yorkshire believe that this mixed crop is never affected by mildew, and that a small quantity of rye sown among wheat will prevent this destructive disease. Rye is much used for bread in some parts of Sweden and Norway. About a century ago rye bread was also much used in England; but, being made of a black kind of rye, it was of the same color, clammy, very detergent, and consequently not so nourishing as wheat. Rye is subject to a disease which the French call *ergot*, and the English horned rye; which sometimes happens when a very hot summer succeeds a rainy spring. According to Tissot, horned rye is such as suffers an irregular vegetation in the middle substance between the grain and the leaf, producing an excrescence of a brownish color, about an inch and a half long, and two-tenths of an inch broad. Bread made of this kind of rye has a nauseous and acrid taste, and produces spasmodic and gangrenous disorders. In 1596 an epidemic disease prevailed in Hesse, which the physicians ascribed to bread made of horned rye. Some, we are told, were seized with an epilepsy, and these seldom ever recovered; others became lunatic, and continued stupid the rest of their lives; those who apparently recovered had annual returns of their disorder in January and February. The same disease was occasioned by the use of this bread in several parts of the continent in 1648, 1675, 1702, 1716, 1722, and 1736; and has been very minutely described by Hoffman, A. O. Goelicke, Vater Burghart, and J. A. Srink. In 1709 one-fourth part of all the rye raised in the province of Salone in France was morned, and the surgeon to the hospital of Or-

leans had no fewer than 500 patients under his care that were distempered by eating it; they consisted chiefly of men and boys, the number of women and girls being very small. The first symptom was a kind of drunkenness, then the local disorder began in the toes, and thence extended sometimes to the thigh, and the trunk itself, even after amputation. In 1710 the celebrated Fontenelle describes a case in the History of the Academy of Sciences of France. A peasant at Blois, who had eaten horned rye in bread, was seized with a mortification, which first caused all the toes of one foot to fall off, then the toes of the other, afterwards the remainder of the feet; and, lastly, it ate off the flesh of both his legs and thighs, leaving the bones bare. Horned rye is not only hurtful to man, but to other animals; it has been known to destroy even the flies that settled upon it; sheep, dogs, deer, geese, ducks, swine, and poultry, that were fed with it for experiment, died miserably, some convulsed, others mortified and ulcerated.

2. *S. creticum*, the cretan rye, has glumes fringed on the outside.

3. *S. orientale*, the oriental rye, has shaggy glumes, and the scales of the calyx are shaped like an awl.

4. *S. villosum*, the wood rye grass, has a calyx with wedge-shaped scales, and the fringes of the gloom is woolly.

SECANT, in geometry, is a line that cuts another, or divides it into parts. The secant of a circle is a line drawn from the circumference on one side to a point without the circumference on the other; and it is demonstrated by geometers that, of several secants drawn to the same point, that is the longest which passes through the centre of the circle. The portions, however, of these several secants that are without the circle, are so much the greater as they recede from the centre, and the least external portion is of that secant which passes through it.

SECEDE, *v. n.* } Lat. *secedo*. To withdraw from society or association: he who withdraws or departs: the act of withdrawing.

The accession of bodies upon, or *secession* thereof from the earth's surface, perturbs not the equilibrium of either hemisphere. *Browne.*

SECEDERS, in church history, a numerous body of Presbyterians in Scotland, who have withdrawn from the communion of the established church. As they take up their ground upon the establishment of religion from 1638 to 1650, which they hold to be the purest period of the Scottish church, we shall introduce our account of them by a short review of ecclesiastical history from that period to the era of the secession, and give a fair statement of those events with which, as they say, their secession is connected. James I. having for some time previous to his death entertained a wish to form the church of Scotland as much as possible upon the model of that of England, his son Charles, with the assistance of archbishop Laud, endeavoured to carry the design into execution, by establishing canons for ecclesiastical discipline, and introducing a liturgy into the public service of the church. Numbers of the clergy

and laity of all ranks took the alarm at what they considered to be a bold and dangerous innovation; and, after frequent applications to the throne, they at last obtained the royal proclamation for a free parliament and general assembly. The assembly met in 1638, and began their labors with a repeal of all the acts of the six preceding parliaments, which had favored the designs of James. They condemned the liturgy, together with every branch of the hierarchy. They cited all the Scottish bishops to their bar; and after having excommunicated nine of them, and deposed five from their episcopal office, they restored kirk-sessions, presbyteries, and synods, provincial as well as national. These proceedings were ratified by the parliament which met in 1640. The law of patronage was in full force for several years after this period; yet great care was taken that no minister should be obtruded on the Christian people contrary to their inclinations; and in 1649 it was abolished as an oppressive grievance. The restoration of Charles II., in 1660, changed the face of affairs in the church of Scotland. All that the general assembly had done, from 1638 to 1650, was rendered null and void, their covenants were pronounced to be unlawful, episcopacy was restored, and the king was declared to be the supreme head of the church in all causes civil and ecclesiastical. During this period the Presbyterians were subjected to fines and imprisonment, while numbers of them were publicly executed for their adherence to their political and religious tenets. The Revolution in 1688 gave a different turn to the affairs of the church. The first parliament which met after the event abolished prelacy, and the king's supremacy in ecclesiastical affairs. They ratified the Westminster Confessions of Faith, together with the Presbyterian form of church government and discipline, 'as agreeable to the word of God, and most conducive to the advancement of true piety and godliness, and the establishment of peace and tranquillity within these realms.' The same parliament abolished patronage, and lodged the election of ministers in the hands of heritors and elders, with the consent of the congregation. In the reign of queen Anne the true Protestant religion was ratified and established, together with the Presbyterian form of church government and discipline; and the unalterable continuance of both was declared to be an essential condition of the union of the two kingdoms in all time coming. In 1712 the law respecting patronage was revived, in resentment, it has been said, of that warm attachment which the church of Scotland discovered to the family of Hanover; but the severity of that law was greatly mitigated by the first parliament of George I. stat. 50, by which it is enacted that if the presentee do not signify his acceptance, in six months, the presentation shall become void and null in law. The church, however, did not avail herself of this statute; and an event which happened not many years afterwards gave rise to the secession.

In 1732 more than forty ministers presented an address to the general assembly, specifying in a variety of instances what they considered to be great defections from the established constitution of the church, and craving a redress of these grie-

vances. A petition to the same effect, subscribed by several hundreds of elders and private Christians, was offered at the same time; but the assembly refused a hearing to both, and enacted that the election of ministers to vacant charges, where an accepted presentation did not take place, should be competent only to a conjunct meeting of elders and heritors, being Protestants. To this act objections were made by numbers of ministers and private Christians. They asserted that more than thirty to one in every parish were not possessed of landed property, and were on that account deprived of what they deemed their natural right to choose their own pastors. It was also said that this act was extremely prejudicial to the honor and interest of the church as well as to the edification of the people; and, in fine, it was directly contrary to the appointment of Jesus Christ, and the practice of the apostles, when they filled up the first vacancy in the apostolic college, and appointed the election of deacons and elders in the primitive church. Many of those also who were thought to be the best friends to the church expressed their fears that this act would have a tendency to overturn the ecclesiastical constitution which was established at the Revolution. Mr. Ebenezer Erskine, minister at Stirling, distinguished himself by a bold and determined opposition to the measures of the assembly in 1732. Being at that time moderator of the synod of Perth and Stirling, he opened the meeting at Perth with a sermon from Psalm cxviii. 22: 'The stone which the builders rejected is become the head stone of the corner.' In the course of his sermon he remonstrated, with no small degree of freedom, against the act of the preceding assembly with regard to the settlement of the ministers, and alleged that it was contrary to the word of God and the established constitution of the church. A formal complaint was lodged against him, for uttering several offensive expressions in his sermon before the synod. Many of the members declared that they heard him utter nothing but sound and reasonable doctrine; but his accusers, insisting on their complaint, obtained an appointment of a committee of synod to collect what were called the offensive expressions, and to lay them before the next diet in writing. This was done accordingly; and Mr. Erskine gave in his answer to every article of the complaint. After three days' warm reasoning on this affair, the synod by a majority of six found him censurable; against which sentence he protested, and appealed to the next general assembly. When the assembly met, in May 1733, it affirmed the sentence of the synod, and appointed Mr. Erskine to be rebuked and admonished from the chair. Upon which he protested, that, as the assembly had found him censurable, and had rebuked him for doing what he conceived to be agreeable to the word of God and the standards of the church, he should be at liberty to preach the same truths, and to testify against the same or similar evils, on every proper occasion. To this protest Messrs. William Wilson minister at Perth, Alexander Moncrieff minister at Abernethy, and James Fisher minister at Kinclaven, gave in a written adherence, under the form of instrument; and these four withdrew, intending

to return to their respective charges, and act agreeably to their protest whenever they should have an opportunity. Had the affair rested here, there never would have been a secession; but the assembly, resolving to carry on the process, cited them by their officer to appear next day. They obeyed the citation; and a committee was appointed to retire with them to persuade them to withdraw their protest. The committee having reported that they still adhered to their protest, the assembly ordered them to appear before the commission in August following and retract their protest; and if they should not comply, and testify their sorrow for their conduct, the commission was empowered to suspend them from the exercise of their ministry, with certification that, if they should act contrary to the said sentence, the commission should proceed to a higher censure. The commission met in August accordingly; and the four ministers, still adhering to their protest, were suspended from the exercise of their office, and cited to the next meeting of the commission in the November following. From this sentence several ministers and elders, members of the commission, dissented. The commission met in November, and the suspended ministers compared. Addresses, representations, and letters from several synods and presbyteries, relative to the business now before the commission, were received and read. The synods of Dumfries, Murray, Ross, Angus and Mearns, Perth, and Stirling, craved that the commission would delay proceeding to a high censure. The synods of Galloway and Fife, as also the presbytery of Dornoch, addressed the commission for lenity, tenderness, and forbearance towards the suspended ministers; and the presbytery of Aberdeen represented that, in their judgment, the sentence of suspension inflicted on the aforesaid ministers was too high, and that it was a stretch of ecclesiastical authority. Many members of the commission reasoned in the same manner, and alleged that the act and sentence of the last assembly did not oblige them to proceed to a higher censure at this meeting of the commission. The question, however, was put, Proceed to a higher censure, or not? and the votes, being numbered, were found equal on both sides: upon which Mr. John Goldie, the moderator, gave his casting vote to proceed to a higher censure; which stands in their minutes in these words:— ‘The commission did and hereby do loose the relation of Mr. Ebenezer Erskine minister at Stirling, Mr. William Wilson minister at Perth, Mr. Alexander Moncrieff minister at Abernethy, and Mr. James Fisher minister at Kinclaven, to their respective charges, and declare them no longer ministers of this church; and do hereby prohibit all ministers of this church to employ them, or any of them, in any ministerial function. And the commission do declare the churches of the said ministers vacant from and after the date of this sentence.’ This sentence being intimated to them, they protested that their ministerial office, and relation to their respective charges, should be held as valid as if no such sentence had passed; and that they were now obliged to make a secession from the prevailing party in the ecclesiastical courts; and that it shall be lawful and warrant-

able for them to preach the gospel and discharge every branch of the pastoral office, according to the word of God and the established principles of the church of Scotland. Mr. Ralph Erskine minister at Dunfermline, Mr. Thomas Mair minister at Orwel, Mr. John M'Laren minister at Edinburgh, Mr. John Currie minister at Kinglassie, Mr. James Wardlaw minister at Dunfermline, and Mr. Thomas Nairn minister at Abbotshal, protested against the sentence of the commission, and that it should be lawful for them to complain of it to any subsequent general assembly of the church. The secession properly commenced at this date. And accordingly the ejected ministers declared, in their protest, that they were laid under the disagreeable necessity of seceding, not from the principles and constitution of the church of Scotland, to which they said they stedfastly adhered, but from the present church-courts, which had thrown them out from ministerial communion.

The assembly which met in May 1734 did so far modify the above sentence that they empowered the synod of Perth and Stirling to receive the ejected ministers into the communion of the church, and restore them to their respective charges; but with this express direction, ‘that the said synod should not take upon them to judge of the legality or formality of the former procedure of the church judicatories in relation to this affair, or either approve or censure the same.’ As this appointment neither condemned the act of the preceding assembly, nor the conduct of the commission, the seceding ministers considered it to be rather an act of grace than of justice, and therefore they said they could not return to the church-courts upon this ground; and they published to the world the reasons of their refusal, and the terms upon which they were willing to return to the communion of the established church. They now erected themselves into an ecclesiastical court, which they called the Associated Presbytery, and preached occasionally to numbers of people who joined them in different parts of the country. They also published what they called an Act, Declaration, and Testimony, to the doctrine, worship, government, and discipline of the church of Scotland, and against several instances, as they said, of defection from these, both in former and in the present times. Some time after this several ministers of the established church joined them, and the Associated Presbytery now consisted of eight ministers. But the general assembly which met in 1738, finding that the number of seceders was much increased, ordered the eight ministers to be served with a libel, and to be cited to the next meeting of the assembly in 1739. They now appeared at the bar as a constituted presbytery, and, having formally declined the assembly's authority, they immediately withdrew. The assembly which met next year deposed them from the office of the ministry, which, however, they continued to exercise in their respective congregations, who still adhered to them, and erected meeting-houses, where they preached till their death. Mr. James Fisher, the last survivor of them, was by a unanimous call, in 1741, translated from Kinclaven to Glasgow, where he continued in the exercise

of his ministry among a numerous congregation, respected by all ranks in that large city, and died in 1775, much regretted by his people and friends. In 1745 the seceding ministers were become so numerous that they were erected into three different presbyteries, under one synod, when a very unprofitable dispute divided them into two parties. The burghess oath, in some of the royal burghs of Scotland, contains the following clause:—'I profess and allow with my heart the true religion presently professed within this realm, and authorised by the laws thereof. I will abide at and defend the same to my life's end, renouncing the Romish religion called Papistry.' Messrs. Ebenezer and Ralph Erskine, James Fisher, and others affirmed that this clause was no way contrary to the principles upon which the secession was formed, and that therefore every seceder might lawfully swear it. Messrs. Alexander Moncrieff, Thomas Mair, Adam Gib, and others, contended, on the other hand, that the swearing of the above clause was a virtual renunciation of their testimony. And this controversy was so keenly agitated that they split into two different parties, and long met in different synods.

Those of them who asserted the lawfulness of swearing the burghess oath were called burghers, and the other party who condemned it anti-burghler seceders, each party claiming to itself the lawful constitution of the associate synod. The anti-burghers, after several previous steps, excommunicated the burghers on the ground of their sin, and of their contumacy in it. This rupture took place in 1747, since which period no successful attempts to effect a re-union were made until recently. The parties remained under the jurisdiction of different synods, and held separate communion; at length their former hostility was laid aside, and they finally became one body. See BURGHERS.

SECERN, *v. a.* Lat. *secerno*. To separate finer from grosser matter; to make the separation of substances in the body.

Birds are better meat than beasts, because their flesh doth assimilate more finely, and *secerneth* more subtly. *Bacon*.

The pituite or mucus *secerned* in the nose and windpipe, is not an excrementitious but a laudable humour, necessary for defending those parts, from which it is *secerned*, from excoriations. *Arbutnot*.

SECHIUM, in botany, a genus of the syngenesia order, and monœcia class of plants; natural order thirty-fourth, cucurbitaceæ: **MALE** CAL. quinquedentate and monophyllous: **COR.** monopetalous; the five filaments are united in an erect tube. In the female flower the pistillum is cylindrical and erect; the stigma large, peltated, and reflected; the pericarpium large, oval, unequal, fleshy, and unilocular, containing one seed, which is smooth, compressed, and fleshy. Of this there is only one species, *viz.* *S. edule*, or Chocho vine. This is cultivated and grows very luxuriantly in many places in Jamaica. The vines run and spread very much. The fruit is boiled, and served up at table by way of greens; and the root of the old vine is somewhat like a yam (*dioscorea*), and, on being boiled roasted, tastes farinaceous and wholesome.

SECKENDORF (Guy Lewis de), a very learned German, descended from an ancient and noble family, was born at Aurach in Franconia in 1626. He was a good linguist; learned in law, history, and divinity; and is said to have been a tolerable painter and engraver. He was honorably employed by several German princes; and died counsellor of state to Frederick III. elector of Brandenburg, and chancellor of the university of Halle, in 1692. He wrote *A History and Defence of Lutheranism*, 2 vols., fol., Frankfurt, 1702, in Latin, &c. &c.

SECKER (Thomas), a learned prelate of the church of England, born in 1693, at Sibthorp, in Nottinghamshire. His father was a protestant dissenter, who, having a small paternal fortune, followed no profession. His mother was the daughter of Mr. George Brough, a substantial gentleman farmer of Shelton in the same county. He received his education at several private schools and academies in the country. Notwithstanding the disadvantage of changing his teachers, he had, at the age of nineteen, not only made a considerable progress in Greek and Latin, but in French, Hebrew, Chaldee, and Syriac; logic, algebra, geometry, and conic sections, and gone through a course of lectures on Jewish antiquities. He had been destined by his father for taking orders among the dissenters. With this view his studies were chiefly turned towards divinity, in which he had made such quick advances that, by the time he was twenty-three, he had carefully read over a great part of the Scriptures, particularly the New Testament, in the original, and the best comments upon it; Eusebius's Ecclesiastical History; The Apostolical Fathers; Whiston's Primitive Christianity; and the principal writers for and against Ministerial and Lay Conformity. But, though the result of these enquiries was a well-grounded belief of the Christian revelation, yet, not being then able to determine what communion he should embrace, he resolved to pursue some profession, which should leave him at liberty to weigh the various disputed points more maturely before he should decide upon them. In 1716, therefore, he studied physic, and, after gaining all the medical knowledge he could by reading and attending the best lectures in London, to improve himself farther, in January 1718-9, he went to Paris. There he lodged in the same house with the famous anatomist Winslow, whose lectures he attended, as he did those on the materia medica, chemistry, and botany, at the king's gardens. The operations of surgery he saw at the Hotel Dieu, and attended also for some time M. Gregoire, the accoucheur, but without any design of practising surgery. Here he became acquainted with Mr. Martin Benson, soon afterwards bishop of Gloucester, one of the most virtuous men of his time. During his continuance at Paris he also kept up a correspondence with Mr. Joseph Butler, afterwards bishop of Durham. Mr. Butler, having been appointed preacher at the rolls on the recommendation of Dr. Clarke and Mr. Edward Talbot, son to bishop Talbot, he mentioned his friend Mr. Secker, without his knowledge, to Mr. Talbot, who promised, if he chose to take orders in the church of England, to engage the

bishop his father to provide for him. This was communicated to Mr. Secker in a letter from Mr. Butler, in May 1720. Having continued his studies in theology, his former difficulties with regard to conformity had gradually lessened as his reading and knowledge became more extensive. After deliberating on Mr. Butler's proposal of such a change for two months, he resolved to embrace the offer, and left France in August 1720. On his arrival in England he was introduced to Mr. Talbot, but in December that gentleman died of the small-pox. This was a great shock to all his friends, but especially to an amiable lady whom he had lately married, and who was very near sinking under so sudden and grievous a stroke. It was some encouragement, however, to Mr. Secker to find that Mr. Talbot had, on his death-bed, recommended him, with Mr. Benson and Mr. Butler, to his father's notice. Thus did that excellent young man (for he was but twenty-nine when he died) raise up, when he least thought of it, the truest friend and protector to his wife and unborn daughter; who afterwards found in Mr. Secker all that tender care and assistance which they could have hoped for from the nearest relation. Mr. Secker next went over to Leyden, and took his degree of M. D. in March 1721: and as part of his exercise for it he composed and printed a dissertation, *De Medicina Statica*, which is still extant, and is esteemed a sensible and learned performance. In April 1721 he entered commoner of Exeter College, Oxford; after which he obtained the degree of A. B. He now spent a considerable part of his time in London, where he gained the esteem of some of the most learned men of those days, particularly of Dr. Clarke, rector of St. James's, and the celebrated dean Berkeley, afterwards bishop of Cloyne. He paid frequent visits of gratitude to Mrs. Talbot, widow of Mr. Edward Talbot, by whom she had a daughter five months after his decease. With her lived Mrs. Catharine Benson, sister to bishop Benson, whom in several respects she resembled. She had been for many years Mrs. Talbot's inseparable companion, and was of unspeakable service to her at the time of her husband's death. Bishop Talbot, being in 1721 appointed to the see of Durham, Mr. Secker was, in 1722, ordained deacon by him, and priest not long after, in St. James's church, where he preached his first sermon, March 28th, 1723. The bishop's domestic chaplain at that time was Dr. Rundle, a man of warm fancy and very brilliant conversation. With him Mr. Secker was associated in the bishop's family, and both taken down by his lordship to Durham in July 1723. In 1724 the bishop gave Mr. Secker the rectory of Houghton-le-Spring. This enabling him to fix himself in the world, he proposed marriage to Mrs. Benson; which being accepted, they were married by bishop Talbot in 1725. At the earnest request of both, Mrs. Talbot and her daughter consented to live with them, and the two families from that time became one. About this time bishop Talbot also gave preferments to Mr. Butler and Mr. Benson, whose rise and progress in the church is here interwoven with the history of Mr. Secker. In the winter of 1725-6 Mr. Butler first published his in-

comparable sermons; on which Mr. Secker took pains to render the style more familiar, and the meaning more obvious. Mr. Secker gave his friend the same assistance in that noble work the *Analogy of Religion, &c.* He now devoted all the time he possibly could to his residence at Houghton, fulfilling all the duties of a country clergyman with the strictest propriety. He brought down his sermons to the level of the understandings of his people; he visited them in private, catechised the young and ignorant, received his neighbours and tenants kindly and hospitably, and was of great service to the poorer sort by his skill in physic. Though this place was in a very remote part of the world, yet the solitude of it perfectly suited his studious disposition, and the income satisfied his ambition. Here he would have been content to live and die; but Mrs. Secker's health, which was injured by the dampness of the situation, obliged him to think of exchanging it for a more healthy one. Accordingly an exchange was made, through the interposition of Mr. Benson, with Dr. Finney, prebendary of Durlam, and rector of Ryton; and Mr. Secker was instituted to Ryton and the prebend June 3d, 1727. In July 1732 he was appointed chaplain to the king; for which favor he was indebted to Dr. Sherlock, who, having heard him preach at Bath, had conceived the highest opinion of his abilities. From that time an intimacy commenced between them. On Sunday the 27th of August he preached before the queen, the king being then abroad. A few days after her majesty sent for him into her closet, and held a long conversation with him; in the course of which he mentioned to her his friend Mr. Butler; which occasioned his rise to those high dignities which he afterwards attained. See BUTLER. Mr. Secker now began to have a public character, and was esteemed an eminent preacher. He was accordingly instituted rector of St. James's on the 18th May, 1733; and in July went to Oxford to take his degree of LL. D. On this occasion he preached his celebrated Act Sermon, on the advantages and duties of an academical education, which was universally allowed to be a masterpiece. It was printed at the desire of the heads of houses, and quickly passed through several editions. It is in the second collection of Occasional Sermons, published by himself in 1766. The reputation he acquired by this sermon contributed towards his farther promotion. In December 1734 the king fixed on him to be bishop of Bristol. Dr. Benson was at the same time appointed to the see of Gloucester, and Dr. Fleming to that of Carlisle; and the three new bishops were all consecrated together in Lambeth Chapel, January 19th 1734-5, the consecration-sermon being preached by Dr. Thomas, afterwards bishop of Winchester. The honors to which Dr. Secker was thus raised in the prime of life did not abate his diligence, for which, indeed, there was now more occasion than ever. The affairs of his parish of St. James's being likewise in great disorder, he regulated and adjusted every thing, particularly the management of the poor; and thus became of signal service to his parishioners, even in a temporal view; though their spiritual welfare engaged his chief attention,

He allowed out of his own income a salary for reading early and late prayers. He held a confirmation once a year; examined the candidates several weeks before in the vestry; and gave them religious tracts, which he also distributed very liberally to all that needed them. He drew up, for the use of his parishioners, that admirable course of Lectures on the Church Catechism which has been since published, and read them once a week, and every Sunday evening, either at the church or one of the chapels. The sermons which he composed were truly excellent and original. He reprov'd the follies and vices of all ranks without distinction or palliation. Few ever possessed, in a higher degree, the rare talent of touching on the most delicate subjects with the nicest propriety, of saying the most familiar things without being low, the plainest without being feeble, the boldest without giving offence. His preaching was, at the same time, highly rational and truly evangelical. He explained, with perspicuity and dignity, the peculiar characteristic doctrines of the gospel. He inculcated the utility, the necessity of them, not merely as speculative truths, but as actual instruments of moral goodness, tending to purify the hearts and regulate the lives of men; and thus, by God's gracious appointment, as well as by the inseparable connexion between true faith and right practice, leading them to salvation. By such doctrines, and with such powers, he quickly became one of the most popular preachers of his time. In 1737 he succeeded to the see of Oxford, on the promotion of Dr. Potter to that of Canterbury. In spring 1748 Mrs. Secker died of the gout in her stomach. She was a woman of great sense and merit. The bishop's affection for her was suited to his character. In 1750 he was installed dean of St. Paul's, for which he gave in exchange the rectory of St. James's and his prebend of Durham. When he preached his farewell sermon the whole audience melted into tears; and he was followed with their prayers and good wishes. Having now leisure both to prosecute his own studies, and to encourage those of others, he gave Dr. Church considerable assistance in his First and Second Vindication of the Miraculous powers, &c., against Dr. Middleton, and he was of equal use to him in his Analysis of Lord Bolingbroke's Works. About the same time began archdeacon Sharp's controversy with the followers of Mr. Hutcheson, which was carried on to the end of 1755. Bishop Secker read over all Dr. Sharp's papers, amounting to 3 vols. 8vo., and improved them throughout. But the ease which his change of situation gave him was disturbed by a heavy and unexpected stroke, viz. the loss of his three friends, bishops Butler, Benson, and Berkely, who were all cut off within one year. Dr. Secker bore an active part in the house of lords in the famous repeal of the Jew Bill; for which the duke of Newcastle moved, and was seconded by the bishop, in a speech which was remarkably well received. On the death of archbishop Hutton, he was promoted to the see of Canterbury, and was confirmed at Bow church, April 21st, 1758; on which occasion his biographers, Messrs. Porteus and Stinton, observe, that, 'in accepting this high and burdensome

station, Dr. Secker sacrificed his own ease and comfort to considerations of public utility; that the mere secular advantages of grandeur were objects below his ambition; and were but poor compensations for the anxiety and difficulties attending them. He had never once through his whole life asked preferment for himself; and the use he made of his newly acquired dignity showed that rank, wealth, and power, had no other charms for him, than as they enlarged the sphere of his active and industrious benevolence.' He sought out and encouraged men of real genius and extensive knowledge; he expended £300 in arranging and improving the MS. library at Lambeth; and, observing that the library of printed books in that palace had received no additions since the time of archbishop Tension, he collected books in all languages from most parts of Europe, at a very great expense, to supply that chasm; which he did, by leaving these to the library at his death, and thereby rendered that collection one of the most useful in the kingdom. All institutions which tended to advance good morals and true religion, he patronised with zeal and generosity: he contributed largely to the maintenance of schools for the poor; to rebuilding or repairing parsonage houses and places of worship; and gave £600 towards erecting a chapel in the parish of Lambeth. To the society for promoting Christian knowledge he was a liberal benefactor; and to that for propagating the gospel in foreign parts, of which he was the president, he paid much attention; was constant at all the meetings of its members, and superintended their deliberations. Whenever any publications came to his knowledge that were calculated to corrupt good morals, or to ridicule Christianity, he did his utmost to stop the circulation of them; yet th wretched authors he was so far from wishing to treat with rigor, that he often extended his bounty to them in distress. And when their writings could not properly be suppressed (as was too often the case) by lawful authority, he engaged men of abilities to answer them, and rewarded them for their trouble. Even the falsehoods and misrepresentations of writers in the newspapers, on religious or ecclesiastical subjects, he took care to have contradicted; and when they seemed likely to injure the cause of virtue and religion, or the reputation of eminent and worthy men, he would sometimes take the trouble of answering them himself. One instance of this kind was his defence of bishop Butler, who, in a pamphlet published in 1767, was accused of having died a Papist. The conduct which he observed towards the several sects of Christians in this kingdom was such as showed his way of thinking to be truly liberal. The dangerous spirit of popery, indeed, he thought should always be kept under proper legal restraints, on account of its natural opposition, not only to the religious, but the civil rights of mankind. He therefore observed its movements with care, and exhorted his clergy to do the same, especially those who were situated in the midst of Roman Catholic families; against whose influence they were charged to be upon their guard, and were furnished with proper books for that purpose.

He took all fit opportunities of combating the errors of the church of Rome in his own writings; and the best answers that were published to some of the late bold apologies for popery were written at his instance, and under his direction. See his Sermons on the Rebellion in 1745; on the Protestant working schools in Ireland; on the 5th of November; and many occasional passages in his other works. With the Dissenters he was desirous of cultivating a good understanding. He considered them, in general, as a conscientious and valuable class of men. With some of the most eminent of them, Watts, Doddridge, Leland, Chandler, and Lardner, he maintained an intercourse of friendship. By the most candid part of them he was highly esteemed; and to such among them as needed help he showed no less kindness and liberality than to those of his own communion. Nor was his concern for the Protestant cause confined to his own country. He was the great patron and protector of it in various parts of Europe; whence he had frequent applications for assistance, which never failed of being favorably received. To several foreign Protestants he allowed pensions, to others he gave occasional relief, and to some of their universities was an annual benefactor. In public affairs, he acted the part of an honest citizen, and a worthy member of the British legislature. From his first entrance into the house of peers, his parliamentary conduct was uniformly upright and noble. He kept equally clear from the extremes of factious petulance and servile dependence; never wantonly thwarting administration from motives of party zeal, private pique, personal attachment, or a passion for popularity; nor yet going every length with every minister from views of interest or ambition. He admired and loved the constitution of his country, and wished to preserve it unimpaired. When the measures of government were inconsistent with the public welfare, he opposed them with freedom and firmness. Yet his opposition was always tempered with the utmost fidelity, respect, and decency, to the excellent prince upon the throne; and the most candid allowances for the unavoidable errors even of the very best ministers, who govern a free and high spirited people. He seldom spoke in parliament, except where the interests of religion and virtue seemed to require it; but, when he did, he spoke with propriety and strength, and was heard with attention and deference. His chief political connexions were with the late duke of Newcastle and lord chancellor Hardwicke, to whom he principally owed his advancement; and he lived long enough to show his gratitude. During more than ten years that Dr. Secker enjoyed the see of Canterbury, he resided constantly at his archiepiscopal house at Lambeth. He had been for many years subject to the gout, which, in the latter part of his life, returned with more frequency and violence, and did not go off in a regular manner, but left the parts very weak, and was succeeded by pains in different parts of the body. On Saturday July 30th, 1768, he was seized, as he sat at dinner, with a sickness at his stomach. He recovered before night; but the next evening, while his servants were raising him

on his couch, he suddenly cried out that his thigh-bone was broken. When the surgeons arrived, and discovered that the bone was broken, he was perfectly resigned. A fever soon ensued. On Tuesday he became lethargic, and continued so till Wednesday about 5 P. M., when he expired with great calmness, in the seventy-fifth year of his age. On examination, the thigh-bone was found to be carious about four inches in length, and at nearly the same distance from its head. The disease took its rise from the internal part of the bone, and had so entirely destroyed its substance, that nothing remained at the part where it was broken but a portion of its outward integument; and even this had many perforations, one of which was large enough to admit two fingers, and was filled with a fungous substance arising from within the bone. There was no appearance of matter about the caries, and the surrounding parts were in a sound state. It was apparent that the torture which he underwent during the gradual corrosion of this bone must have been inexpressibly great. Except some very slight defects of memory, he retained all his faculties and senses. He was buried in a covered passage, between the palace and the church; and he forbade any monument or epitaph to be placed over him. By his will he appointed the Rev. Dr. Daniel Burton, canon of Christ church, and Mrs. Catharine Talbot, his executors; and left £13,000 in trust to Drs. Porteus and Stinton, his chaplains; to pay the interest thereof to Mrs. Talbot and her daughter during their lives, or the life of the survivor; and after their decease £11,000 of the said £13,000 to be transferred to charitable purposes; amongst which were £1000 to the Society for the Propagation of the Gospel, and £1000 to the same society for a bishop or bishops in the king's dominions in America. He was tall and comely; in the early part of his life slender; but as he advanced in years his constitution gained strength, and his size increased, yet never to a degree of corpulency. The dignity of his form corresponded with the greatness of his mind, and inspired at all times respect and awe; but peculiarly so when he was engaged in any of the more solemn functions of religion, which added new life and spirit to the natural gracefulness of his appearance. His countenance was open, ingenuous, and expressive. It varied easily with his feelings, so as to be a faithful interpreter of his mind, which was incapable of dissimulation. It could speak dejection, and, on occasion, anger, very strongly; but, when it meant to show approbation, it softened into a most gracious smile, and diffused over all his features the most benevolent and reviving complacency.

SEC'LE, *n. s.* Fr. *siecle*; Lat. *seculum*. A century.

Of a man's age, part he lives in his father's lifetime, and part after his son's birth; and thereupon it is wont to be said that three generations make one *secle*, or hundred years, in the genealogies.

Hammond's Practical Catechism.

SECLUDE', *v. a.* Lat. *secludo*. To confine from; shut up apart; exclude.

None is *secluded* from that function, of any degree, state, or calling. *Whitgift.*

Some parts of knowledge God has thought fit to *seclude* from us; to fence them not only, as he did the interdicted tree, by combination, but with difficulties and impossibilities. *Decay of Piety.*

The number of birds described may be near five hundred, and of fishes, *secluding* shell-fish, as many; but, if the shell-fish be taken in, more than six times the number. *Ray.*

Let eastern tyrants from the light of heaven *Seclude* their bosom slaves. *Thomson.*

Inclose your tender plants in your conservatory, *secluding* all entrance of cold. *Evelyn's Kalendar.*

SECOMIÆ, in the old system of mineralogy, a genus of fossils of the class of septariæ. The characters are, That they are bodies of dusky hue; divided by septa, or partitions of a sparry matter, into several more or less regular portions; of a moderately firm texture; not giving fire with steel; but fermenting with acid menstrua, and easily calcining. The septariæ of this genus are of all others the most common, and are what have been known by the mistaken names of the waxen vein, or ludus Helmontii. Of the whitish or brownish, we have thirteen; of the yellowish five; and of the ferruginous ones four.

SECOND, *adj., n. s. & v. a.* } Fr. *second*; Lat. *secundus*. It is
SECOND-HAND, *adj.* } *secundus*. It is
SECOND-SIGHT, *n. s.* } observable that
SECONDARY, *adj. & n. s.* } we have no ordinal
SECONDARILY, *adv.* } of two, says
SECONDRATE. } Dr. Johnson, as

the Latins, and the nations deriving from them, have none of *duo*. What the Latins call *secundus*, from *sequor*, the Saxons term *oðer*, or *æpæra*. The next in order to the first; the ordinal of two: second-hand and second-rate mean in the next place of order or value: a second is the supporter of the principal in a duel; any supporter: a second, or second minute of time, the second division of an hour by sixty: to second is, to follow next in place; maintain; support: a secondary is a deputy or delegate; and the other derivatives correspond.

First, she hath disobeyed the law; and, *secondly*, trespassed against her husband. *Ecclus. xxiii. 23.*

The authors of the former opinion were presently *seconded* by other wittier and better learned, who being loth that the form of church polity, which they sought to bring in, should be otherwise than in the highest degree accounted of, took first an exception against the difference between church polity and matters of necessity to salvation. *Hooker.*

Though we here fall down,
 We have supplies to *second* our attempt;
 If they miscarry, theirs shall *second* them.

Shakspeare. Henry VI.

Having formerly discoursed of a marital voyage, I think it not impertinent to *second* the same with some necessary relations concerning the royal navy. *Raleigh.*

I shall not speak superlatively of them, lest I be suspected of partiality; but this I may truly say, they are *second* to none in the Christian world. *Bacon's Advice to Villiers.*

Two are the radical differences: the *secondary* differences are as four. *Bacon's Natural History.*

First, metals are more durable than plants; and, *secondly*, they are more solid and hard. *Bacon.*

Their *seconds* minister on oath, Which was indifferent to them both. That on their knightly faith and troth

No magick them supplied;
 And sought them that they had no charms,
 Wherewith to work each other's harms,
 But came with simple open arms

To have their causes tried. *Drayton's Nymphiad.*
 He propounded the duke as a main cause of divers infirmities in the state, being sure enough of *seconds* after the first onset. *Wotton.*

It is primarily generated out of the effusion of melancholick blood, or *secondarily* out of the dregs and remainder of a phlegmonous or œdematick tumour. *Harvey.*

These atoms make the wind primarily tend downwards, though other accidental causes impel it *secondarily* to a sloping motion. *Digby.*

Four flames of an equal magnitude will be kept alive the space of sixteen *second* minutes, though one of these flames alone, in the same vessel, will not last above twenty-five, or at most thirty *seconds*. *Wilkins's Mathematical Magick.*

None I know

Second to me, or like; equal much less. *Milton.*

I to be the power of Israel's God
 Avow, and challenge Dagon to the test,
 Offering to combat thee, his champion bold
 With the' utmost of his godhead *seconded*. *Id.*
 That we were formed then, sayest thou, and the work

Of *secondary* hands, by task transferred
 From father to his son? *Id. Paradise Lost.*

Familiar Ovid tender thoughts inspires,
 And nature *seconds* all his soft desires. *Roscommon.*

He confesses that temples are erected, and festivals kept, to the honour of saints, at least *secondarily*. *Stillingfleet.*

They pelted them with satires and epigrams, which perhaps had been taken up at first only to make their court, and at *second-hand* to flatter those who had flattered their king. *Temple.*

A *second* Paris, differing but in name,
 Shall fire his country with a *second* flame. *Dryden.*

My eyes are still the same; each glance, each grace,
 Keep their first lustre, and maintain their place,
 Not *second* yet to any other face. *Id.*

He was not then a *second-rate* champion, as they would have him who think fortitude the first virtue in a hero. *Id.*

Wheresoever there is moral right on the one hand, no *secondary* right can discharge it. *L'Estrange.*

Sounds move above 1140 English feet in a *second* of time, and in seven or eight minutes of time about 100 English miles. *Locke.*

Some men build so much upon authorities, they have but a *second-hand* or implicit knowledge. *Id.*

That which is peculiar and discriminative must be taken from the primariness and *secondariness* of the perception. *Norris.*

In imitation of preachers at *second-hand*, I shall transcribe from Bruyere a piece of raillery. *Tatler.*

Sin is *seconded* with sin; and a man seldom commits one sin to please, but he commits another to defend himself. *South.*

Not these huge bolts, by which the giants slain
 Lay overthrown on the Phlegrean plain;
 'Twas of a lesser mould and lighter weight;
 They call it thunder of a *second* rate. *Addison.*

Their first encounters were very furious, till, after some toil and bloodshed, they were parted by the *seconds*. *Id.*

Sawney was descended of an ancient family, renowned for their skill in prognosticks: most of his

ancestors were *second sighted*, and his mother but narrowly escaped for a witch. *Id.*

As he was going out to steal a sheep, he was seized with a fit of *second sight*: the face of the country presented him with a wide prospect of new scenes, which he had never seen before. *Id. Freeholder.*

They call it thunder of the *second-rate*. *Id. Ovid.*

As in a watch's fine machine

Though many artful springs are seen,

The added movements which declare

How full the moon, how old the year,

Derive their *secondary* power

From that which simply points the hour. *Prior.*

Courage, when it is only a *second* to injustice, and falls on without provocation, is a disadvantage to a character. *Collier.*

Gravitation is the powerful cement which holds together this magnificent structure of the world, which stretcheth the north over the empty space, and hangeth the earth upon nothing, to transfer the words of Job from the first and real cause to the *secondary*. *Bentley.*

If the system had been fortuitously formed by the convening matter of a chaos, how is it conceivable that all the planets, both primary and *secondary*, should revolve the same way, from the west to the east, and that in the same plane? *Id.*

By a sad train of miseries alone

Distinguished long, and *second* now to none. *Pope.*

In human works, though laboured on with pain,

A thousand movements scarce one purpose gain;

In God's, one single can its ends produce,

Yet serves to *second* too some other use. *Id.*

Persons of *second rate* merit in their own country, like birds of passage, thrive here, and fly off when their employments are at an end. *Swift.*

Spurious virtue in a maid;

A virtue but at *second-hand*. *Id.*

If in company you offer something for a jest, and nobody *seconds* you in your laughter, you may condemn their taste, but in the mean time you make a very indifferent figure. *Id.*

The house of commons in Ireland, and, *secondly*, the privy council, addressed his majesty against these half-pence. *Id.*

Personal brawls come in as *seconds* to finish the dispute of opinion. *Watts.*

SECOND, in geometry, chronology, &c., is the sixtieth part of a prime, whether of a degree or of an hour.

SECOND, in music, one of the musical intervals; being only the difference between any sound and the next nearest sound, whether above or below it. See *INTERVAL*.

SECOND SIGHT (in Erse *Taisch*), is a mode of seeing supposed to be superadded to that which nature generally bestows. This gift or faculty, which is neither voluntary nor constant, is in general rather troublesome than agreeable to the possessors of it, who are chiefly found among the inhabitants of the Highlands of Scotland, those of the Western Isles, of the Isle of Man, and of Ireland. It is an impression made either by the mind upon the eye, or by the eye upon the mind, by which things distant or future are perceived, and seen as if they were present. A man on a journey far from home falls from his horse; another, who is perhaps at work about the house, sees him bleeding on the ground, commonly with a landscape of the place where the accident befalls him. Another seer, driving home his cattle, or wandering in idleness, or

musing in the sunshine, is suddenly surprised by the appearance of a bridal ceremony, or funeral procession, and counts the mourners or attendants, of whom, if he knows them, he relates the names; if he knows them not, he can describe the dresses. Things distant are seen at the instant when they happen. Of things future, Johnson says that he knows no rule pretended to for determining the time between the sight and the event; but we are informed by Mr. Grose that in general the time of accomplishment bears some relation to the time of the day in which the impressions are received. Thus visions seen early in the morning (which seldom happens) will be much sooner accomplished than those appearing at noon; and those seen at noon will take place in a much shorter time than those happening at night; sometimes the accomplishment of the last does not fall out within a year or more. These visions are not confined to solemn or important events; nor is it true, as is commonly reported, that to the *second sight* nothing is presented but phantoms to evil. The future visit of a mountebank, or piper; a plentiful draught of fish; the arrival of common travellers; or, if possible, still more trifling matters than these,—are foreseen by the seers. A gentleman told Dr. Johnson that, when he had once gone far from his own island, one of his laboring servants predicted his return, and described the livery of his attendants, which he had never worn at home; and which had been, without any previous design, occasionally given him. As many men eminent for science and literature have admitted the reality of this apparently useless gift, we shall, without interposing our own opinion, give the reflections of two of the first characters of the age upon it, and leave our readers to form their own judgment:—By Dr. Beattie it is thus accounted for. ‘The Highlands of Scotland are a picturesque but a melancholy country. Long tracts of mountainous desert, covered with dark heath, and often obscure by misty weather; narrow valleys, thinly inhabited, and bounded by precipices resounding with the fall of torrents; a soil so rugged, and a climate so dreary, as in many parts to admit neither the amusements of pasturage nor the labors of agriculture; the mournful dashing of waves along the friths and lakes that intersect the country; the portentous noises which every change of the wind and every increased diminution of the waters is apt to raise in a lonely region full of echoes and rocks and caverns; the grotesque and ghastly appearance of such a landscape by the light of the moon: objects like these diffuse a gloom over the fancy, which may be compatible enough with occasional and social merriment, but cannot fail to tincture the thoughts of a native in the hour of silence and solitude. If these people, notwithstanding their reformation in religion and more frequent intercourse with strangers, do still retain many of their old superstitions, we need not doubt but in former times they must have been much more enslaved to the horrors of imagination, when beset with the bugbears of Popery and Paganism. Most of their superstitions are of a melancholy cast.

‘That of *second sight*, by which some are still

supposed to be haunted, is considered by themselves as a misfortune, on account of the many dreadful images it is said to obtrude upon the fancy. It is said that some of the Alpine regions do likewise lay claim to a sort of second sight. Nor is it wonderful that persons of a lively imagination, immured in deep solitude, and surrounded with the stupendous scenery of clouds, precipices, and torrents, should dream (even when they think themselves awake) of those few striking ideas with which their lonely lives are diversified: of corpses, funeral processions, and other subjects of terror; or of marriages, and the arrival of strangers, and such like matters of more agreeable curiosity. Let it be observed, also, that the ancient Highlanders of Scotland had hardly any other way of supporting themselves than by hunting, fishing, or war; professions that are continually exposed to fatal accidents. And hence, no doubt, additional horrors would often haunt their solitude, and a deeper gloom overshadow the imagination even of the hardest native. A sufficient evidence can hardly be found for the reality of the second sight, or at least of what is commonly understood by that term. A treatise on the subject was published in the year 1762, in which many tales were told of persons whom the author believed to have been favored, or haunted, with these illuminations; but most of the tales were trifling and ridiculous: and the whole work betrayed, on the part of the compiler, such extreme credulity, as could not fail to prejudice many readers against his system. That any of these visionaries are apt to be swayed in their declarations by sinister views we will not say; but this may be said with confidence, that none but ignorant people pretend to be gifted in this way. And in them it may be nothing more, perhaps, than short fits of sudden sleep or drowsiness, attended with lively dreams and arising from some bodily disorder, the effect of idleness, low spirits, or a gloomy imagination. For it is admitted, even by the most credulous Highlanders, that, as knowledge and industry are propagated in their country, the second sight disappears in proportion; and nobody ever laid claim to the faculty who was much employed in the intercourse of social life. Nor is it at all extraordinary that one should have the appearance of being awake, and should even think one's self so, during those fits of dosing; that they should come on suddenly, and while one is engaged in some business. The same thing happens to persons much fatigued, or long kept awake, who frequently fall asleep for a moment, or for a long space, while they are standing, or walking, or riding on horseback. Add but a lively dream to this slumber, and (which is the frequent effect of disease) take away the consciousness of having been asleep, and a superstitious man may easily mistake his dream for a waking vision; which, however, is soon forgotten when no subsequent occurrence recalls it to his memory; but which, if it shall be thought to resemble any future event, exalts the poor dreamer into a Highland prophet. This conceit makes him more recluse and more melancholy than ever; and so feeds his disease, and multiplies his visions; which, if they are not

dissipated by business or society, may continue to haunt him as long as he lives; and which, in their progress through the neighbourhood, receive some new tinctures of the marvellous from every mouth that promotes their circulation. As to the prophetic nature of this second sight, it cannot be admitted at all. That the Deity should work a miracle in order to give intimation of the frivolous things that these tales are made up of, the arrival of a stranger, the nailing of a coffin, or the color of a suit of clothes; and that these intimations should be given for no end, and to those persons only who are idle and solitary, who speak Gaelic, or who live among mountains and deserts—is like nothing in nature or providence that we are acquainted with; and must, therefore, unless it were confirmed by satisfactory proof (which is not the case), be rejected as absurd and incredible. These visions, such as they are, may reasonably enough be ascribed to a dis-tempered fancy. And that in them, as well as in our ordinary dreams, certain appearances should, on some rare occasions, resemble certain events, is to be expected from the laws of chance; and seems to have in it nothing more marvellous or supernatural, than that the parrot, who deals out his scurrilities at random, should sometimes happen to salute the passenger by his right appellation.' To the confidence of these objections Dr. Johnson replies, 'that by presuming to determine what is fit, and what is beneficial, they presuppose more knowledge of the universal system than man has attained; and therefore depend upon principles too complicated and extensive for our comprehension; that there can be no security in the consequence when the premises are not understood; that the second sight is only wonderful because it is rare, for, considered in itself, it involves no more difficulty than dreams, or perhaps than the regular exercise of the cogitative faculty; that a general opinion of communicative impulses, or visionary representations, has prevailed in all ages and all nations; that particular instances have been given with such evidence as neither Bacon nor Bayle have been able to resist; that sudden impressions, which the event has verified, have been felt by more than own or publish them; that the second sight of the Hebrides implies only the local frequency of a power, which is no where totally unknown; and that, where we are unable to decide by antecedent reason, we must be content to yield to the force of testimony. By pretension to second sight, no profit was ever sought or gained. It is an involuntary affection, in which neither hope nor fear is known to have any part. Those who profess to feel it do not boast of it as a privilege, nor are considered by others as advantageously distinguished. They have no temptation to feign, and their bearers have no motive to encourage the imposture.' Dr. Johnson affirms that the Islanders of all degrees, whether of rank and understanding, universally admit it, except the ministers, who, according to him, reject it, in consequence of a system, against conviction. He affirms, too, that in 1773 there was in the Hebrides a second-sighted gentleman, who complained of the terrors to which he was exposed.

SECOND TERMS, in algebra, those where the

unknown quantity has a degree of power less than it has in the term where it is raised to the highest. The art of throwing these second terms out of an equation, that is, of forming a new equation where they have no place, is one of the most ingenious and useful inventions in all algebra.

SECONDARY, or SECONDARY, an officer who acts as second or next to the chief officer. Such are the secondaries of the courts of king's bench and common pleas; the secondaries of the compters, who are next the sheriffs of London in each of the two compters; two secondaries of the pipe; secondaries to the remembrancers, &c.

SECONDARY CIRCLES OF THE ECLIPTIC are circles of longitude of the stars; or circles which, passing through the poles of the ecliptic, are at right angles to the ecliptic. See CIRCLES.

SECRET, <i>adj.</i> , n. s. & v. a.	} Fr. <i>secret</i> ; Lat. <i>secretus</i> . Hidden; private; affording privacy; retired; unseen; faithful to a secret; occult; privy: as a noun substantive, something concealed or hidden; something not yet discovered or known; privacy; seclusion: to secret or secrete is to keep private, and the latter (in the animal economy) to put aside or separate; to discern: secretitious follows this sense: a secretist is a dealer in secrets: the adverb and noun substantive following, as well as secrecy, correspond with secret as an adjective: secretary means performing the office of secretion.
SECRETE, <i>v. a.</i>	
SECRETION, <i>n. s.</i>	
SECRETIOUS, <i>n. s.</i>	
SECRETIST,	
SECRETLY, <i>adv.</i>	
SECRETNESS, <i>n. s.</i>	
SECRETORY, <i>adj.</i>	
SECRECY, <i>n. s.</i>	

cealed or hidden; something not yet discovered or known; privacy; seclusion: to secret or secrete is to keep private, and the latter (in the animal economy) to put aside or separate; to discern: secretitious follows this sense: a secretist is a dealer in secrets: the adverb and noun substantive following, as well as secrecy, correspond with secret as an adjective: secretary means performing the office of secretion.

The *secret* things belong unto the Lord our God; but those things which are revealed belong unto us.

Deut. xxix. 29.

Bread eaten in *secret* is pleasant. *Prov.* ix. 17.

There is no *secret* that they can hide from thee.

Ezek. xxviii.

It is not with publick as with private prayer: in this rather *secrecy* is commanded than outward shew; whereas that, being the publick act of a whole society, requireth accordingly more care to be had of external appearance.

Hooker.

That's not suddenly to be performed,

But with advice and silent *secrecy*.

Shakspeare. Henry VI.

In Nature's book of infinite *secrecy*

A little can I read. *Id. Antony and Cleopatra.*

Secret Romans, that have spoke the word,

And will not palter. *Shakspeare. Julius Cæsar.*

Infected minds

To their deaf pillows will discharge their *secrets*.

Shakspeare.

Give him this letter; do it *secretly*. *Id.*

Great care is to be used of the clerks of the council, for the *secreting* of their consultations.

Bacon's Advice to Villiers.

I could muster up

My giants and my witches too,

Which are vast constancy and *secretness*. *Donne.*

Thou open'st wisdom's way

And givest access, though *secret* she retire:

And I perhaps am *secret*. *Milton.*

The *secret* top

Of Oreb or of Sinai. *Id.*

Or sympathy, or some conatural force

Powerful at greatest distance to unite

With *secret* amity things of like kind,
By *secretest* conveyance. *Id.*

We not to explore the *secrets* ask
Of his eternal empire. *Id.*

Thou, in thy *secrecy*, although alone,
Best with thyself accompanied, seek'st not
Social communication. *Id. Paradise Lost.*

Some things I have not yet thought fit so plainly
to reveal; not out of any envious design of having
them buried with me, but that I may barter with
those *secretists*, that will not part with one *secret* but
in exchange for another. *Boyle.*

Those thoughts are not wholly mine; but either
they are *secretly* in the poet, or may be fairly de-
duced from him. *Dryden.*

All the glands are a congeries of vessels complicated
together, whereby they give the blood time to
separate through the capillary vessels into the *secretory*,
which afterwards exonerate themselves into one
duct. *Ray.*

Secrecy and fidelity were their only qualities.

Burnet.

There is no such thing as perfect *secrecy*, to encourage
a rational mind to the perpetration of any base
action; for a man must first extinguish and put out
the great light within him, his conscience; he must
get away from himself, and shake off the thousand
witnesses which he always carries about him, before
he can be alone. *South's Sermons.*

Now *secretly* with inward grief he pined;
Now warm resentments to his griefs he joined.

Addison.

Some may place their chief satisfaction in giving
secretly what is to be distributed; others in being the
open and avowed instruments of making such distribu-
tions. *Arbuthnot.*

There *secret* in her sapphire cell

He with the Naïfs wont to dwell.

Fenton.

All *secrets* of the deep, all nature's works.

Milton.

The Romans seem not to have known the *secret* of
paper credit.

Arbuthnot.

They have a similitude or contrariety to the *secretitious*
humours in taste and quality.

Floyer on the Humours.

SECRETARY, *n. s.* Fr. *secrétaire*; low
Lat. *secretarius*. One entrusted with the man-
agement of business; one who writes for another.

Call Gardiner to me, my new *secretary*.

Shakspeare.

That which is most of all profitable is, acquaint-
ance with the *secretaries*, and employed men of am-
bassadors. *Bacon.*

Cottington was *secretary* to the prince.

Clarendon.

SECRETARY, in ornithology, the falco serpen-
tarius and sagittarius of Linnæus, but classed by
Latham under the genus vultur. See FALCO
and VULTUR.

A SECRETARY, in a public office, is an officer
who, by his master's orders, writes letters, des-
patches, and other instruments, which he renders
authentic by his signet. Of these there are several
kinds: as secretaries of state, or officers that
have under their management and direction the
most important affairs of the kingdom, and are
obliged constantly to attend on the king: they
receive and despatch whatever comes to their
hands, either from the crown, the church, the
army, private grants, pardons, dispensations, &c.,
as likewise petitions to the sovereign, which,
when read, are returned to them; all which they

despatch according to the king's direction. They have authority to commit persons for treason, and other offences against the state, as conservators of the peace at common law, or as justices of the peace throughout the kingdom. They are members of the privy council, which is seldom or never held without one of them being present. As to the business and correspondence in all parts of this kingdom, it is managed by either of the secretaries without any distinction; but, with respect to foreign affairs, the business is divided into two provinces or departments, the southern and the northern, comprehending all the kingdoms and states that have any intercourse with Great Britain; each secretary receiving all letters and addresses from, and making all despatches to, the several princes and states comprehended in his province.

SECT, *n. s.* } Fr. *secte*; Lat. *secta*, from
 SEC'TARISM, } *sectando*. A body of men fol-
 SEC'TARY, } lowing some particular master,
 SEC'TATOR. } or united in some settled
 tenets. Often in a bad sense: sectarism is dis-
 position to party: a sectary is one who joins a
 party, or indulges a party spirit: sectator, an
 obsolete word for a follower or imitator.

The *sectaries* of my celestial skill,
 That want to be the world's chief ornament,
 They are under keep. *Spenser.*

We'll wear out,
 In a wall'd prison, packs, and *sects* of great ones,
 That ebb and flow by the moon.

Shakspeare. King Lear.
 Of our unbitted lusts, I take this that you call
 love to be a *sect* or cion. *Id. Othello.*

My lord, you are a *sectary*; *Shakspeare.*
 That's the plain truth.
 Hereof the wiser sort and the best learned philo-
 sophers were not ignorant, as Cicero witnesseth,
 gathering the opinion of Aristotle and his *sectators*.

Raleigh.
 Romish catholic tenets are inconsistent, on the
 one hand, with the truth of religion professed and
 protested by the church of England, whence we are
 called protestants; and the anabaptists, and separa-
 tists, and *sectaries*, on the other hand, whose tenets
 are full of schism, and inconsistent with monarchy.

Bacon.
 The greatest vicissitude of things is the vicissit-
 ude of *sects* and religion; the true religion is built
 upon a rock; the rest are tossed upon the waves of
 time. *Id. Essays.*

Nothing has more marks of schism and *sectarism*
 than this presbyterian way. *King Charles.*

The jealous *sects* that dare not trust their cause
 So far from their own will as to the laws,
 You for their umpire and their synod take.

Dryden.
 A *sect* of freethinkers is a sum of cyphers.

Bentley.
 The number of *sectaries* does not concern the
 clergy in point of interest or conscience. *Swift.*

SECTION, *n. s.* Fr. *section*; Lat. *sectio*.
 The act of cutting or dividing; the part cut off.

Instead of their law, which they might not read
 openly, they read of the prophets, that which in like-
 ness of matter came nearest to each section of their
 law. *Low.*

In the *section* of bodies, man, of all sensible
 creatures, has the fullest brain to his proportion.

Watson.

The production of volatile salts I reserve till I
 mention them in another *section*. *Boyle.*

Without breaking in upon the connection of his
 language, it is hardly possible to give a distinct view
 of his several arguments in distinct *sections*. *Locke.*

SECTION, in general, denotes a part of a di-
 vided thing, or the division itself. Such, particu-
 larly, are the subdivisions of a chapter; called
 also paragraphs and articles: the mark of a sec-
 tion is §.

SECTION, in geometry, denotes a side or surface
 of a body or figure cut off by another; or the
 place where lines, planes, &c., cut each other.

SECTIONS, CONIC. See CONIC SECTIONS.

SECTOR, *n. s.* Fr. *secteur*. In geometry.

Sector is an instrument made of wood or metal,
 with a joint, and sometimes a piece to turn out to
 make a true square, with lines of sines, tangents,
 secants, equal parts, rhumbs, polygons, hours, lati-
 tudes, metals, and solids. It is generally useful in
 all the practical parts of the mathematicks, and par-
 ticularly contrived for navigation, surveying, astro-
 nomy, dialling, and projection of the sphere. All
 the lines of the *sector* can be accommodated to any
 radius, which is done by taking off all divisions pa-
 rallelwise, and not lengthwise; the ground of which
 practice is this, that parallels to the base of any
 plain triangle bear the same proportion to it as the
 parts of the legs above the parallel do to the whole
 legs. *Harris.*

SECTOR, in geometry, is a part of a circle com-
 prehended between two radii and the arch; or it
 is a mixed triangle, formed by two radii and the
 arch of a circle.

SECTOR OF AN ELLIPSE, OR OF AN HYPERBOLA,
 &c., is a part resembling the circular sector, being
 contained by three lines, two of which are radii,
 or lines drawn from the centre of the figure to
 the curve, and the intercepted arc or part of that
 curve.

SECTOR OF A SPHERE is the solid generated
 by the revolution of the sector of a circle about
 one of its radii; the other radius describing the
 surface of a cone, and the circular arc a circular
 portion of the surface of the sphere of the
 same radius. So that the spherical sector consists
 of a right cone, and of a segment of a sphere
 having the same common base with the cone.
 And hence the solid content of it will be found
 by multiplying the base or spherical surface by
 the radius of the sphere, and taking a third part
 of the product.

SECTOR is also a mathematical instrument of
 great use in finding the proportion between quan-
 tities of the same kind: as between lines and
 lines, surfaces and surfaces, &c.; whence the
 French call it the compass of proportion. The
 great advantage of the sector above the common
 scales, &c., is, that it is made so as to fit all radii
 and all scales. By the lines of chords, sines
 &c., on the sector, we have lines of chords, sines,
 &c., to any radius betwixt the length and breadth
 of the sector when open. The real inventor of
 this valuable instrument is unknown; yet of so
 much merit has the invention appeared that it
 was claimed by Galileo, and disputed by nations.
 The sector is founded on the fourth proposition
 of the sixth book of Euclid; where it is demon-
 strated that similar triangles have their homo-
 logous sides proportional. An idea of the theory

of its construction may be thus conceived:—Let the lines A B, A C (plate SECTOR, &c.), represent the legs of the sector; and A D and A E two equal sections from the centre: if now the points C B and D E be connected, the lines C B and D E will be parallel; therefore the triangles A D E A C B will be similar; and consequently the sides A D, D E, A B, and B C, proportional; that is, as A D: D E:: A B: B C; whence, if A D be the half, third, or fourth part of A B, D E will be a half, third, or fourth part of C B; and the same holds of all the rest. If, therefore, A D be the chord, sine or tangent, of any number of degrees to the radius A B; D E will be the same to the radius B C.

The instrument (fig. 3, 4), consists of two rulers or legs, of brass or ivory, or any other matter, representing the radii, moveable round an axis or joint, the middle of which expresses the centre: whence are drawn on the faces of the rulers several scales, which may be distinguished into single and double. The double scales or lines graduated upon the faces of the instrument, and which are to be used as sectoral lines, proceed from the centre; and are, 1. Two scales of equal parts, one on each leg, marked LIN. or L.; each of these scales, from the great extensiveness of its use, is called the line of lines. 2. Two lines of chords marked CHO. or C. 3. Two lines of secants marked SEC. or S. A line of polygons marked POL. Upon the other face the sectoral lines are, 1. Two lines of sines marked SIN. or S. 2. Two lines of tangents marked TAN. or T. 3. Between the line of tangents and sines there is another line of tangents to a lesser radius, to supply the defect of the former, and extending from 45° to 75°, marked t. Each pair of these lines (except the line of polygons) is so adjusted as to make equal angles at the centre; and consequently, at whatever distance the sector be opened, the angles will be always respectively equal. That is, the distance between 10 and 10, on the line of lines, will be equal to 60 and 60 on the line of chords, 90 and 90 on the line of sines, and 45 and 45 on the line of tangents. Besides the sectoral scales, there are others on each face, placed parallel to the outward edges, and used as those of the common plane scale. These are 1. A line of inches. 2. A line of latitudes. 3. A line of hours. 4. A line of inclination of meridians. 5. A line of chords. Three logarithmic scales, namely, one of numbers, one of sines, and one of tangents; these are used when the sector is fully opened, the legs forming one line. The value of the divisions on most of the lines is determined by the figures adjacent to them; these proceed by tens, which constitute the divisions of the first order and are numbered accordingly; but the value of the divisions of the line of lines, that are distinguished by figures, is entirely arbitrary, and may represent any value that is given to them; hence the figures 1, 2, 3, 4, &c., may denote either 10, 20, 30, 40, or 100, 200, 300, 400, and so on. The line of lines is divided into ten equal parts, numbered 1, 2, 3, to 10; these may be called divisions of the first order; each of these is again subdivided into ten other equal parts, which may be called divisions of the second order; each of these is divided into two equal

parts, forming divisions of the third order. The divisions on all the scales are contained between four parallel lines; those of the third order extend to the most distant; those of the third to the least; those of the second to the intermediate parallel. When the whole line of lines represents 100, the divisions of the first order, or those to which the figures are annexed, represent tens; those of the second order units; those of the third order the halves of these units. If the whole line represent ten, then the divisions of the first order are units; those of the second tenths; the third twentieths. In the line of tangents, the divisions to which the numbers are affixed are the degrees expressed by those numbers. Every fifth degree is denoted by a line somewhat longer than the rest; between every number and each fifth degree there are four divisions, longer than the intermediate adjacent ones: these are whole degrees; the shorter ones, or those of the third order, are thirty minutes. From the centre to 60° the line of sines is divided like the line of tangents, from 60 to 70; it is divided only to every degree, from 70 to 80, to every two degrees, from 80 to 90: the division must be estimated by the eye. The divisions on the line of chords are to be estimated in the same manner as the tangents. The lesser line of tangents is graduated every two degrees, from 45 to 50; but from 50 to 60 to every degree; from 60 to the end to half degrees. The line of secants from 0 to 10 is to be estimated by the eye; from 20 to 50 it is divided into every two degrees; from 50 to 60 to every degree; from 60 to the end to every half degree.

1. To open the sector so as the two lines of chords may make an angle or number of degrees, suppose 40. Take the distance from the joint to 40, the number of the degrees proposed, on the line of chords; open the sector till the distance from 40 to 60 on each leg be equal to the given distance of 40; then will the two lines on the sector form an angle of 40°, as was required. 2. The sector being opened, to find the degrees of its aperture. Take the extent from 60 to 60, and lay it off on the line of chords from the centre; the number whereon it terminates will show the degrees, &c., required. 3. To lay off any number of degrees upon the circumference of a circle. Open the sector till the distance between 60 and 60 be equal to the radius of the given circle; then take the parallel extent of the chord of the number of degrees on each leg of the sector, and lay it off on the circumference of the given circle. Hence any regular polygon may be easily inscribed in a given circle.

1. To divide a given line into any number of equal parts, suppose seven. Take the given line in your compasses; and setting one foot in a division of equal parts, that may be divided by 7, for example 70, whose seventh part is 10, open the sector till the other point fall exactly on 70, in the same line on the other leg. In this disposition, applying one point of the compasses to 10 in the same line, shut them till the other fall in 10 in the same line on the other leg, and this opening will be the seventh part of the given line. Note, if the line to be divided be too long to be applied to the legs of the sector, divide only one-half or one-fourth by seven, and the

double or quadruple thereof will be the seventh part of the whole. 2. To measure the lines of the perimeter of a polygon, one of which contains a given number of equal parts. Take the given line in your compasses, and set it parallel, upon the line of equal parts, to the number on each leg expressing its length. The sector remaining thus, set off the length of each of the other lines parallel to the former, and the number each of them falls on will express its length. 3. A right line being given, and the number of parts it contains, suppose 120, to take from it a shorter line containing any number of the same parts, suppose 25. Take the given line in your compasses, open the sector till the two feet fall on 120 on each leg; then will the distance between 25 on one leg, and the same number on the other, give the line required. 4. To multiply by the line of equal parts on the sector. Take the lateral distance from the centre of the line to the given multiplicator; open the sector till you fit that lateral distance to the parallel of 1 and 1, or 10 and 10, and keep the sector in that disposition; then take in the compasses the parallel distance of the multiplicand, which distance, measured laterally on the same line, will give the product required. Thus, suppose it were required to find the product of 8 multiplied by 4: take the lateral distance from the centre of the line to 4 in your compasses, i. e. place one foot of the compasses in the beginning of the divisions, and extend the other along the line to 4. Open the sector till you fit this lateral distance to the parallel of 1 and 1, or 10 and 10. Then take the parallel distance of 8, the multiplicand; i. e. extend the compasses from 8, in this line, on one leg, to 8 in the same line on the other; and that extent, measured laterally, will give the product required. 5. To divide by the line of equal parts on the sector. Extend the compasses laterally from the beginning of the line to 1, and open the sector till you fit that extent to the parallel of the divisor; then take the parallel distance of the dividend; which extent, measured in a lateral direction, will give the quotient required. Thus, suppose it were required to divide 36 by 4; extend the compasses laterally, the beginning of the line to 1, and fit to that extent the parallel of 4, the divisor; then extend the compasses parallel from 36 on one leg to 36 on the other, and that extent, measured laterally, will give 9, the quotient required. 6. Proportion by the line of equal parts. Make the lateral distance of the second term the parallel distance of the first term; the parallel distance of the third term is the fourth proportional. *Example.*—To find a fourth proportional to 8, 4, and 6, take the lateral distance of 4, and make it the parallel distance of 8; then the parallel distance of 6, extended from the centre, shall reach to the fourth proportional 3. In the same manner, a third proportional is found to two numbers. Thus, to find a third proportional to 8 and 4, the sector remaining as in the former example, the parallel distance of 4, extended from the centre, shall reach to the third proportional 2. In all these cases, if the number to be made a parallel distance be too great for the sector, some aliquot part of it is to be taken, and the answer is to be multiplied by the number by which the first number was divided.

1. To inscribe a regular polygon in a given circle. Take the semidiameter of the given circle in the compasses, and adjust it to the number 6, on the line of polygons, on each leg of the sector; then, the sector remaining thus opened, take the distance of the two equal numbers, expressing the number of sides the polygon is to have; e. gr. the distance from 5 to 5 for a pentagon, from 7 to 7 for a heptagon, &c. These distances, carried about the circumference of the circle, will divide it into so many equal parts. 2. To describe a regular polygon, e. gr. a pentagon, on a given right line. Take the length of the line in the compasses, and apply it to the extent of the number 5, 5, on the lines of polygons. The sector thus opened, upon the same lines take the extent from 6 to 6; this will be the semidiameter of the circle the polygon is to be inscribed in. If then, with this distance from the ends of the given line, you describe two arches of a circle, their intersection will be the centre of the circle. 3. On a right line, to describe an isosceles triangle, having the angles at the base double that at the vertex. Open the sector, till the ends of the given line fall on 10 and 10 on each leg; then take the distance from 6 to 6. This will be the length of the two equal sides of the triangle.

By the several lines disposed on the sector, we have scales to several radii; so that, having a length or radius given, not exceeding the length of the sector when opened, we find the chord, sine, &c., thereto: e. gr. Suppose the chord, sine, or tangent, of 10° , to a radius of three inches required; make three inches the aperture, between 60 and 60, on the lines of chords of the two legs; then will the same extent reach from 45 to 45 on the line of tangents, and from 90 to 90 on the line of the sines on the other side; so that to whatever radius the line of chords is set, to the same are all the others set. In this disposition, therefore, if the aperture between 10 and 10, on the lines of chords, be taken with the compasses, it will give the chord of 10° . If the aperture of 10 and 10 be in like manner taken on the lines of sines, it will be the sine of 10° . Lastly, if the aperture of 10 and 10 be in like manner taken on the lines of tangents, it gives the tangent of 10° . If the chord, or tangent, of 70° were required; for the chord, the aperture of half the arch, viz. 35, must be taken, as before; which distance, repeated twice, gives the chord of 70° . To find the tangent of 70° to the same radius, the small line of tangents must be used, the other only reaching to 45; making, therefore, three inches the aperture between 45 and 45 on the small line; the extent between 70 and 70° on the same, will be the tangent of 70° to three inches radius. To find the secant of an arch, make the given radius the aperture between 0 and 0 on the lines of secants; then will the aperture of 10 and 10, or 70 and 70, on the said lines, give the tangent of 10° or 70° . If the converse of any of these things were required, that is, if the radius be required, to which a given line is the sine, tangent, or secant, it is but making the given line, if a chord, the aperture on the line of chords, between 10 and 10, and then the sector will stand at the radius required; that is, the aperture between 60 and 60 on the said line is the radius.

If the given line were a sine, tangent, or secant, it is but the making 't the aperture of the given number of degrees, then will the distance of 90 and 90 on the sines, of 45 and 45 on the tangents, of 0 and 0 on the secants, be the radius.

SECULAR, *adj.* } Fr. *seculier*; Lat. *secularis*.
SECULARLY, *adv.* } *laris*. Not spiritual; relating to affairs of the present world; worldly: in the Romish church not bound by monastic rule.

This, in every several man's actions of common life, appertaineth unto moral, in publick and polittick secular affairs, unto civil wisdom. *Hooker.*

Then shall they seek to avail themselves of names, Places, and titles; and with these to join Secular power, though feigning still to act By spiritual. *Milton's Paradise Lost.*

Those northern nations easily embraced the religion of those they subdued, and by their devotion gave great authority and reverence, and thereby ease, to the clergy, both secular and regular. *Temple.*

Littleless and *secularity* of spirit is the greatest enemy to contemplation.

Burnet's Theory of the Earth.

In France vast numbers of ecclesiasticks, secular and religious, live upon the labours of others.

Addison.

The secular year was kept but once in a century.

Id.

SECULAR is peculiarly used for a person who lives at liberty in the world, not shut up in a monastery, in which sense it stands opposed to regular. The Romish clergy are divided into secular and regular, of which the latter are bound by monastic rules, the former not.

SECULAR GAMES, in antiquity, were solemn games held among the Romans once in an age. These games lasted three days and as many nights; during which time sacrifices were performed, theatrical shows exhibited, with combats, sports, &c., in the circus. The occasion of these games, according to Valerius Maximus, was to stop the progress of a plague. Valerius Publicola was the first who celebrated them at Rome, A. U. C. 245. The solemnity was as follows:—

The whole world were invited by a herald to a feast which they had never seen already, nor ever should see again. Some days before the games began, the quinceciviri, in the capitol and the Palatine temple, distributed to the people purifying compositions, of various kinds, as flambeaux, sulphur, &c. From hence the populace passed to Diana's temple on the Aventine Mount, with wheat, barley, and oats, as an offering. After this, whole nights were spent in devotion to the Destinies. When the time of the games was fully come, the people assembled in the *Campus Martius*, and sacrificed to Jupiter, Juno, Apollo, Latona, Diana, the *Parcæ*, Ceres, Pluto, and Proserpine. On the first night of the feast the emperor, with the quinceciviri, caused three altars to be erected on the banks of the Tiber, which they sprinkled with the blood of three lambs, and then proceeded to regular sacrifice. A space was next marked out for a theatre, which was illuminated with innumerable flambeaux and fires. Here they sung hymns, and celebrated all kinds of sports. On the day after, having offered victims at the capitol, they went into the *Campus Martius*, and celebrated sports to the

honor of Apollo and Diana. These lasted till the next day, when the noble matrons, at the hour appointed by the oracle, went to the capitol to sing hymns to Jupiter. On the third day, which concluded the solemnity, twenty-seven boys and as many girls sung in the temple of Palatine Apollo hymns and verses in Greek and Latin, to recommend the city to the protection of those deities whom they designed particularly to honor by their sacrifices. The inimitable carmen secular of Horace was composed for this last day in the secular games, held by Augustus. It has been much disputed whether these games were held every 100, or every 110 years. Valerius Antius, Varro, and Livy, are quoted in support of the former opinion; in favor of the latter may be produced the quinceciviri registers, the edicts of Augustus, and the words of Horace in the secular poem, *cœtus undenos decies per annos*. It was a general belief that the girls who bore a part in the song should be soonest married; and that the children who did not dance and sing at the coming of Apollo, should die unmarried, and at an early period of life.

SECULAR POEM, a poem sung or rehearsed at the secular games; of which kind we have a very fine piece among the works of Horace, being a sapphic ode at the end of his epodes.

SECULARIZATION, the act of converting a regular person, place, or benefice, into a secular one. Almost all the cathedral churches were anciently regular; that is, the canons were to be religious; but they have been since secularized. For the secularization of a regular church, there is required the authority of the pope, that of the prince, the bishop of the place, the patron, and even the consent of the people. Religious that want to be released from their vow, obtain briefs of secularization from the pope.

SECUNDINE, *n. s.* Fr. *secondines*, *secondes*; Lat. *secundæ*, viz. partes, quod nascentem infantem sequantur. Ainsworth. The membrane in which the embryo is wrapped; and the after birth.

The casting of the skin is by the ancients compared to the breaking of the *secundine*, or cawl, but not rightly; for the *secundine* is but a general cover, not shaped according to the parts, but the skin is.

Bacon's Natural History.

Future ages lie

Wrapped in their sacred *secundine* a sleep. *Cowley.*

If the *fœtus* be taken out of the womb inclosed in the *secundines*, it will continue to live, and the blood to circulate. *Ray.*

SECUNDINES, in anatomy, are the chorion and amnios, with the placenta, &c. See ANATOMY and MIDWIFERY.

SECUNDREPORE, the name of two towns in Hindostan, one in the province of Ajmeer, district of Jyepore; the other in the province of Allahabad, district of Gazyppoor.

SECUNDUS (Julius), a Roman orator, who flourished under Titus Vespasian, and published Orations, &c.

SECUNDUS (Nicholas Everard), a descendant of an ancient and honorable family in the Netherlands, was born in the neighbourhood of Middleburgh, and was in high favor with the emperor Charles V., having been employed by that monarch in several Nations of considerable im-

portance. He was first a member of the grand parliament or council of Mechlin; afterwards president of the states of Holland and Zealand at the Hague; and, lastly, held a similar office at Mechlin, where he died, August 5th, 1532, aged seventy. These various employments did not occupy the whole of Everard's time. Notwithstanding the multiplicity of his business, he found leisure to cultivate letters with great success, and even to act as preceptor to his own children, who were five sons and three daughters, and all took the name of Nicholas from their father.

SECUNDUS (Joannes Nicolaus, or John Nicholas), youngest son of the preceding, improved the education given him by his father, and became a most eminent writer of Latin poetry. Poetry, however, was by no means the profession which his father wished him to follow. He intended him for the law, and, when he could no longer direct his studies himself, placed him under the care of Jacobus Valeardus. This man is said to have been every way well qualified to discharge the important trust which was committed to him; and he certainly grieved the affection of his pupil, who, in one of his poems, mentions the death of Valeardus with every appearance of unfeigned sorrow. Another tutor was provided, but the law did not suit Secundus. Poetry, painting, and sculpture, had engaged his mind at a very early period. Secundus wrote verses when only ten years old; and, from the vast quantity which he left behind him, such writing was evidently his principal employment. He found time, however, to carve figures of all his own family, of his mistresses, of the emperor Charles V., of several eminent personages of those times, and of many of his intimate friends; and in the last edition of his works, published by Scriverius at Leyden, 1631, there is a print of one of his mistresses, with this inscription round it, *VATIS AMATORIS JULIA SCULPTA MANU*. Secundus having nearly attained the age of twenty-one, and being determined to comply with the wishes of his father, quitted Mechlin, and went to France, where at Bourges he studied the civil law under the celebrated Andreas Alciatus. Alciatus was one of the most learned civilians of that age. But what endeared him most to our author was his acquaintance with literature and his taste in poetry. Having studied a year under this eminent professor, and taken his degrees, Secundus returned to Mechlin, where he remained a few months. In 1533 he went into Spain, with warm recommendations to the count of Nassau and other persons of high rank; and soon afterwards became secretary to the cardinal archbishop of Toledo, in a department of business which required a facility in writing with elegance the Latin language. During his residence with this cardinal, he wrote his *Basia*, a series of wanton poems, of which the fifth, seventh, and ninth carmina of Catullus seem to have given the hint. Secundus was not, however, a servile imitator of Catullus. His expressions seem to have been borrowed rather from Tibullus and Propertius; and, in the warmth of his descriptions, he surpasses every thing that has been written on similar subjects by Catullus,

Tibullus, Propertius, C. Gallus, Ovid, or even Horace. In 1535 he accompanied Charles V. to the siege of Tunis, but gained no laurel as a soldier. The hardships of that memorable siege were little suited to the disposition of a votary of Venus and the Muses; and, upon an enterprise which might have furnished ample matter for an epic poem, it is remarkable that Secundus wrote nothing worthy of preservation. Having returned from his martial expedition, he was sent by the cardinal to Rome to congratulate the pope upon the success of the emperor's arms; but was taken so ill on the road that he was not able to complete his journey. He was advised to seek the benefit of his native air; and that happily recovered him. Having quitted the service of the cardinal, he was employed in the same office by the bishop of Utrecht; and so great was his fame for classical elegance that he was called upon to fill the post of private Latin secretary to the emperor, who was then in Italy; but, before he could enter upon it, death put a stop to his career of glory. Having arrived at St. Amand, to meet with the bishop of Utrecht, he was on the 8th of October, 1536, cut off by a violent fever, in his twenty-fifth year. He was interred in the church of the Benedictines, of which his patron, the bishop, was abbot; and his relations erected to his memory a marble monument, with a Latin inscription. His works have gone through several editions, of which the best and most copious is that of Scriverius. It consists of *Julia*, *Eleg. lib. i.*; *Amores*, *Eleg. lib. ii.*; *ad Diversos*, *Eleg. lib. iii.*; *Basia*, styled by the editor *incomparabilis et divinus prorsus liber*; *Epigrammata*; *Odarum liber unus*; *Epistolarum liber unus Elegiaca*; *Epistolarum liber alter, heroico carmine scriptus*; *Funerum liber unus*; *Sylvæ et Carminum fragmenta*; *Pœmata nonnulla fratrum*; *Itineraria Secundi Tria*, &c.; *Epistolæ totidem, soluta oratione*. To these works ample testimonies are prefixed by Lelius, Gregory Gyraldus, the elder Scaliger, Theodore Beza, and others, who all speak of them with rapture. A French critic, indeed, after having affirmed that the genius of Secundus never produced any thing which was not excellent in its kind, adds, with too much truth, 'Mais sa muse est un peu trop lascive.' For this fault our author makes an apology in a Latin epigram addressed to the grammarians; but, as the poet observes,—

Immodest words admit of no defence,

For want of decency is want of sense.

SECURE', *adj. & v. a.* } *Lat. securus.* Free
SECURELY, *adv.* } from fear; exempt
SECUREMENT, *n. s.* } from, terror; easy;
SECURITY. } assured; confident;
careless; the derivatives corresponding.

Gideon smote the host, for the host were secure.

Judges.

When they had taken security of Jason, they let them go. *Acts xvii. 9.*

Love, that now long time securely slept
In Venus' lap, unarmed then and naked,
'Gan rear his head, by Clotho being waked.

Spenser.

There is scarcely truth enough alive to make societies secure; but security enough to make fellowships accurst. *Shakspeare.*

'Tis done, like Hector, but *securely* done,
A little proudly, and great deal misprising
The knight opposed.

Shakspeare. Troilus and Cressida.

How senseless then and dead a soul hath he
Which thinks his soul doth with his body die;
Or thinks not so, but so would have it be,
That he might sin with more *security*!

Davies.

Marvellous *security* is always dangerous, when men
will not believe any bees to be in a hive, until they
have a sharp sense of their stings.

Hayward.

Confidence then bore thee on *secure*

To meet no danger.

Milton.

Haply too *secure* of our discharge
From penalty.

Id.

Nothing left

That might his happy state *secure*.

Id.

His daring foe *securely* him defied.

Id.

They, like Judas, desire death; Cain, on the con-
trary, grew afraid thereof, and obtained *securement*
from it.

Browne's Vulgar Errors.

If the providence of God be taken away, what *se-
curity* have we against those innumerable dangers to
which human nature is continually exposed?

Tillotson.

But thou, *secure* of soul, unbent with woes,
The more thy fortune frowns, the more oppose.

Dryden.

I spread a cloud before the victor's sight,
Sustained the vanquished, and *secured* his flight;
Even then *secured* him, when I sought with joy
The vowed destruction of ungrateful Troy.

Id.

Secure from fortune's blows,

Secure of what I cannot lose,

In my small pinnacle I can sail.

Id. Horace.

A soul that can *securely* death defy,
And count it nature's privilege to die.

Id. Juvenal.

Actions have their preference, not according to the
transient pleasure or pain that accompanies or follows
them here, but as they serve to *secure* that perfect
durable happiness hereafter.

Locke.

Deeper to wound, she shuns the fight;

She drops her arms to gain the field:

Secures her conquest by her flight,

And triumphs when she seems to yield.

Prior.

It concerns the most *secure* of his strength, to pray
to God not to expose him to an enemy.

Rogers.

The portion of their wealth they design for the
uses of the poor, they may throw into one of these
publick repositories, *secure* that it will be well em-
ployed.

Atterbury.

We live and act as if we were perfectly *secure* of
the final event of things, however we may behave
ourselves.

Id.

Whether any of the reasonings are inconsistent, I
securely leave to the judgment of the reader.

Id.

The Romans do not seem to have known the secret
of paper credit, and *securities* upon mortgages.

Id. on Coins.

It is possible for a man, who hath the appearance
of religion, to be wicked and an hypocrite; but it is
impossible for a man who openly declares against
religion to give any reasonable *security* that he will
not be false and cruel.

Swift.

Exchequer bills have been generally reckoned the
surest and most sacred of all *securities*.

Id. Examiner.

Some, who gave their advice for entering into a
war, alledged that we should have no *security* for our
trade while Spain was subject to a prince of the
Bourbon family.

Id.

Nothing can be more artful than the address of
Ulysses: he *secures* himself of a powerful advocate,
by paying an ingenuous and laudable deference to
his friend.

Broome.

Where two or three sciences are pursued at the

same time, if one of them be dry, as logick, let
another be more entertaining, to *secure* the mind
from weariness.

Watts.

SECUTORES, a species of gladiators among
the Romans, whose arms were a helmet, a shield,
and a sword or a leaden bullet. They were
armed in this manner, because they had to con-
tend with the *retarii*, who were dressed in a
short tunic, bore a three-pointed lance in their
left hand, and a net in their right. The *retarius*
attempted to cast his net over the head of the se-
cutor; and, if he succeeded, he drew it together
and slew him with his trident; but, if he missed
his aim, he immediately betook himself to flight
till he could find a second opportunity of en-
tangling his adversary with his net. He was
pursued by the secutor in his flight.

SEDAN, *n. s.* I believe because first made
at Sedan.—Johnson. A kind of portable coach;
a chair.

Some beg for absent persons, feign them sick,
Close mewed in their *sedans* for want of air,
And for their wives produce an empty chair.

Dryden.

By a tax of Cato's it was provided that women's
wearing cloaths, ornament, and *sedan*, exceeding
12*l.* 1*s.* 10*d.* halfpenny, should pay 30*s.* in the
hundred pound value.

Arbuthnot

SEDAN, a considerable town of France, in the
department of the Ardennes, situated on the
right bank of the Meuse, and strongly fortified,
partly by Vauban. The old castle, in which
Turenne was born, is now converted into a fine
arsenal. The town is divided into Upper and
Lower, and is very uneven and irregular, but not
ill-built. Sedan has been long noted for its ma-
nufactures of superfine woollens, of fire-arms
and copper articles; it has likewise a cannon
foundry. It was formerly the seat of a Protes-
tant university. Inhabitants 11,000. Thirty-
seven miles south-east of Charlemont, and 170
north-east of Paris. Long. 4 57 50" E., lat. 49
42 29' N.

SEDATE, *adj.* } Lat. *sedatus*. Calm;
SEDATELY, *adv.* } quiet; still; unrudded; un-
SEDATE'NESS, *n. s.* } disturbed: the adverb and
noun substantive corresponding.

With countenance calm and soul *sedate*,

Thus Turnus.

Dryden's Æneid.

That has most weight with them that appears *se-
dately* to come from their parents' reason.

Locke.

There is a particular *sedateness* in their conversa-
tion and behaviour that qualifies them for council,
with a great intrepidity that fits them for action.

Addison on the War.

Disputation carries away the mind from that calm
and *sedate* temper which is so necessary to contem-
plate truth.

Watts.

SEDATIVES, in medicine, a general name for
such medicines as weaken the powers of nature,
such as blood-letting, cooling salts, purgatives,
&c.

SEDATIVES, in the new system of medicine,
are denied to have any existence. Opium was
long considered by physicians as a sedative, be-
cause it allays pain, and induces sleep, &c., but
its first and chief effect is highly stimulant, and
these are only the consequences of the indirect
debility that arises in the body, when the stimu-
lant effect is gone off (see **OPIMUM**), as is the case
in excess of wine, spirits, and all other intoxicat-

ing liquors. In short, the late Dr. Brown and his followers, insist, that what have hitherto been reckoned sedative powers are only inferior degrees of stimuli, and that no direct sedatives, as such, exist in nature.

SEDATIVE SALT, in the old system of chemistry, borax, now called boracic acid.

SE DEFENDENDO, in law, a plea used for him that is charged with the death of another, by alleging that he was under a necessity of doing what he did in his own defence: as that the other assaulted him in such a manner that, if he had not done what he did, he must have been in hazard of his own life. See HOMICIDE and MURDER.

SEDENTARY, *adj.* Fr. *sedentaire*; Ital. *sedentario*; Lat. *sedentarius*, of *sedeo*. Passed in sitting still; wanting motion or action.

A *sedentary* life, appropriate to all students, crushes the bowels; and, for want of stirring the body, suffers the spirits to lie dormant.

Harvey on Consumptions.

The *sedentary* earth,

That better might with far less compass move,
Served by more noble than herself, attains
Her end without least motion. *Milton.*

Till length of years,

And *sedentary* numbness, craze my limbs
To a contemptible old age obscure. *Id. Agonistes.*

The soul, considered abstractedly from its passions, is of a remiss *sedentary* nature, slow in its resolves, and languishing in its executions.

Addison's Spectator.

The blood of labouring people is more dense and heavy than those who live a *sedentary* life.

Arbutnot.

SEDGE, *n. s.* } Sax. *fæcǝ*. A growth of
SEDGY, *adj.* } narrow flags; a narrow flag.

He hid himself in the *sedges* adjoining. *Sandys.*
Adonis, painted by a running brook,
And Cytherea all in *sedges* hid;
Which seem to move and wanton with her breath,
Even as the waving *sedges* play with wind.

Shakspeare.

On the gentle Severn's *sedgy* bank,
In single opposition, hand to hand,
He did confound the best part of an hour,
In changing hardiment with great Glendower.

Id. Henry IV.

In hotter countries a fly called luccielle, that shineth as the glowworm, is chiefly upon fens and marshes; yet is not seen but in the height of summer, and *sedge* or other green of the fens gives as good shade as bushes. *Bacon.*

My bonds I brake,
Fled from my guard, and, in a muddy lake,
Amongst the *sedges*, all the night lay hid. *Denham.*
Niphates, with inverted urn,
And drooping *sedge*, shall his Armenia mourn.

Dryden.

Old father Thames raised up his reverend head,
But feared the fate of Simoeis would return:
Deep in his ooze he sought his *sedgy* bed,
And shrunk his waters back into his urn. *Id.*

SEDHOUT, a noted fortress of Hindostan, in the province of Golcondah, and district of Cuddapah. It is the capital of a small district of the same name, belonging to the British, and was taken by Meer Joomla, about the year 1650. At this period Sedhout and the adjoining district were celebrated for their diamond mines, which

do not now exist. The fortress is six miles north-east of Cuddapah.

SEDIMENT, *n. s.* Fr. *sediment*; Lat. *sedimentum*. That which subsides or settles at the bottom.

The salt water rises into a kind of scum on the top, and partly goeth into a *sediment* in the bottom, and so is rather a separation than an evaporation.

Bacon's Natural History.

It is not bare agitation, but the *sediment* at the bottom, that troubles and defiles the water.

South's Sermons.

That matter sunk not down till last of all, settling at the surface of the *sediment*, and covering all the rest. *Woodward.*

SEDITION, *n. s.* Fr. *sedition*; Lat. *seditio*. A tumult; insurrection; popular commotion.

That sunshine brewed a shower for him,
That washed his father's fortunes forth of France,
And heaped *sedition* on his crown at home.

Shakspeare. Henry VI.

In soothing them, we nourished 'gainst our senate
The cockle of rebellion, insolence, *sedition*,

Id. Coriolanus.

The cause why I have brought this army hither,
Is to remove proud Somerset from the king,
Seditious to his grace and to the state.

Id. Henry VI.

Very many of the nobility in Edinborough, at that time, did not appear yet in this *seditious* behaviour;

Clarendon.

Thou returnest

From flight, *seditious* angel. *Milton.*

But, if she has deformed this earthly life
With murderous rapine and *seditious* strife,
In everlasting darkness must she lie;
Still more unhappy that she cannot die. *Prior.*

SEDITION, in the civil law, is used for a factious commotion of the people, or an assembly of a number of citizens without lawful authority, tending to disturb the peace and order of society. This offence is of different kinds: some *seditions* more immediately threatening the supreme power, and the subversion of the constitution; others tending only towards the redress of private grievances. Among the Romans, therefore, it was variously punished, according as its end and tendency threatened greater mischief. See lib. 1. Cod. de *Seditiosis*; and Mat. de Crimin. lib. ii. n. 5, de *Læsa Majestate*. In the punishment the authors and ringleaders were justly distinguished from those who, with less wicked intention, joined and made part of the multitude. The same distinction holds in the law of England and in that of Scotland. Some kinds of *sedition* in England amount to high treason, and come within the statute 25 Edw. III. as levying war against the king. And several *seditions* are mentioned in the Scottish acts of parliament as treasonable.—Bayne's Crim. Law of Scotland, pp. 33, 34. The law of Scotland makes riotous and tumultuous assemblies a species of *sedition*. But the law there, as well as in England, is now chiefly regulated by the riot act, made 1 Geo. I.; only it is to be observed that the proper officers in Scotland, to make the proclamation thereby enacted, are sheriffs, stewards, and bailies of regalities, or their deputies; magistrates of royal boroughs, and all other inferior judges and magistrates; high and petty constables, or other officers of the peace,

in any county, stewardry, city, or town. And in that part of the island, the punishment of the offence is any thing short of death which the judges, in their discretion, may appoint.

SEDLEY (Sir Charles), an English poet and wit, the son of Sir John Sedley, of Aylesford, in Kent, born about 1639. At the restoration he came to London to join the general jubilee, and commenced wit, courtier, poet, and gallant. He was so much admired that he became a kind of oracle among the poets; which made king Charles tell him that nature had given him a patent to be Apollo's viceroy. The productions of his pen were some plays, and some delicately tender amorous poems, in which the softness of his verses was so exquisite, as to be called by the duke of Buckingham Sedley's witchcraft. 'There were no marks of genius or true poetry to be described,' say the authors of the *Biographia Britannica*; 'the art wholly consisted in raising loose thoughts and lewd desires, without giving any alarm; and so the poison worked gently and irresistibly. Our author, we may be sure, did not escape the infection of his own art, or rather was first tainted himself before he spread the infection to others.' A very ingenious writer of the present day, however, speaks much more favorably of Sir Charles Sedley's writings. 'He studied human nature; and was distinguished for the art of making himself agreeable, particularly to the ladies; for the verses of lord Rochester, beginning with, 'Sedley has that prevailing gentle art,' &c., so often quoted, allude not to his writings, but to his personal address.'—Langhorn's *Effusions*, &c. But while he thus grew in reputation for wit, and in favor with the king, he grew poor and debauched; his estate was impaired, and his morals were corrupted. One of his follies, however, being followed by an indictment and a heavy fine, Sir Charles reformed, applied himself to business, and became a member of parliament, in which he was a frequent speaker. He was in the house of commons in the reign of James II., whose attempts upon the constitution he vigorously withstood; and he was very active in bringing on the Revolution. This was thought more extraordinary as he had received favors from James. But that prince had taken a fancy to Sir Charles's daughter, and, in consequence of his intrigues with her, he created her countess of Dorchester. This honor so far from pleasing, greatly shocked Sir Charles. However libertine he himself had been, yet he could not bear the thoughts of his daughter's dishonor; and, with regard to her exaltation, he only considered it as rendering her more conspicuously infamous. He therefore conceived a hatred for the king; and from this and other motives, perhaps patriotic, readily joined to dispossess him of his throne. 'I hate ingratitude,' said he, 'and therefore, as the king has made my daughter a countess, I will endeavour to make his daughter a queen; meaning the princess Mary, married to the prince of Orange, who deprived James of his crown at the Revolution. He lived to the beginning of queen Anne's reign; and his works were printed in 2 vols. 8vo. 1719.

SEDR, or SEDRE, the high-priest of the

sect of Ali among the Persians. The *sedre* is appointed by the emperor of Persia, who usually confers the dignity on his nearest relation. The jurisdiction of the *sedre* extends over all effects destined for pious purposes, over all mosques, hospitals, colleges, sepulchres, and monasteries. He disposes of all ecclesiastical employments, and nominates all the superiors of religious houses. His decisions in matters of religion are received as so many infallible oracles; he judges of all criminal matters in his own house without appeal. His authority is balanced by that of the mudstehid, or first theologue of the empire.

SEDUCE, *v. a.* } Fr. *seduire*; Lat. *seduco*.
 SEDUCEMENT, *n. s.* } To draw aside from the
 SEDUCER, } right; tempt; corrupt;
 SEDUCIBLE, *adj.* } deprave; deceive; se-
 SEDUCTION, *n. s.* } ducement is the practice
 of seduction: seducer and the other derivatives correspond.

In the latter times some shall depart from the faith, giving heed to *seducing* spirits. *1 Tim. iv. 1.*

Me the gold of France did not *seduce*,
 Although I did admit it as a motive
 The sooner to effect what I intended.

Shakspeare. Henry V.

A beauty-waining and distressed widow
 Seduced the pitch and height of all his thoughts
 To base declension. *Id. Richard III.*

Grant it me, O king; otherwise a *seducer* flourishes,
 and a poor maid is undone. *Shakspeare.*

I shall never gratify the spitefulness of a few with
 any sinister thoughts of all their allegiance, whom
 pious frauds have *seduced*. *King Charles.*

Whatsoever men's faith, patience, or perseverance
 were, any remarkable indulgence to this sin, the *se-*
duction of Balaam, was sure to bring judgments.

Hammond.

Subtle he needs must be who could *seduce*
 Angels. *Milton.*

To season them, and win them early to the love
 of virtue and true labour, ere any flattering *seduce-*
ment or vain principle seize them wandering, some
 easy and delightful book of education should be read
 to them. *Id. on Education.*

We owe much of our error to the power which
 our affections have over our so easy *seducible* under-
 standings. *Glanville.*

The deceiver soon found out this soft place of
 Adam's, and innocency itself did not secure him
 from this way of *seduction*. *Id. Scepstis.*

To procure the miseries of others in those extremi-
 ties, wherein we hold an hope to have no society our-
 selves, is a strain above Lucifer, and a project beyond
 the primary *seduction* of hell.

Browne's Vulgar Errors.

The vicious example of ages past poisons the
 curiosity of the present, affording a hint of sin unto
seducible spirits. *Browne.*

Nor let false friends *seduce* thy mind to fame
 By arrogating Jonson's hostile name;

Let father Flecknoe fire thy mind with praise,
 And uncle Ogleby thy envy raise. *Dryden.*

He, whose firm faith no reason could remove,
 Will melt before that soft *seducer*, love. *Id.*

There is a teaching by restraining *seducers*, and
 so removing the hindrances of knowledge. *South.*

Her hero's dangers touched the pitying power,
 The nymph's *seducements*, and the magic bower.

Pope.

Helen ascribes her *seduction* to Venus, and men-
 tions nothing of Paris. *Id.*

A woman who is above flattery, and despises all praise but that which flows from the approbation of her own heart, is, morally speaking, out of the reach of seduction. *Clarissa.*

I know that the devil is continually lying in wait to seduce and destroy the souls of men. *Paley.*

SEDUCTION, is the act of tempting and drawing aside from the right path, and comprehends every endeavour to corrupt any individual of the human race. This is the import of the word in its largest and most general sense; but it is commonly employed to express the act of tempting a virtuous woman to part with her chastity. The seducer of female innocence practises the same stratagems of fraud to get possession of a woman's person, that the swindler employs to get possession of his neighbour's goods or money; yet the law of honor, which pretends to abhor deceit, and which impels its votaries to murder every man who presumes, however justly, to suspect them of fraud, or to question their veracity, applauds the address of a successful intriguer, though it be well known that the seducer could not have obtained his end without swearing to the truth of a thousand falsehoods, and calling upon God to witness promises which he never meant to fulfil. The law of honor is indeed a very capricious rule, which accommodates itself to the pleasures and conveniences of high life; but the law of the land, which is enacted for the equal protection of high and low, may be supposed to view the guilt of seduction with a more impartial eye. Yet, for this offence, even the laws of this kingdom have provided no other punishment than a pecuniary satisfaction to the injured family, which, in England, can be obtained only by one of the quaintest fictions in the world, by the father's bringing his action against the seducer for the loss of his daughter's service during her pregnancy and nurturing. (See Paley's Moral Philosophy, book III., part. iii. chap. 3.) The moralist, however, who estimates the merit or demerit of actions, not by laws of human appointment, but their general consequences as established by the laws of nature, must consider the seducer as a criminal of the deepest guilt. In every civilised country, and in many countries where civilisation has made but small progress, the virtue of women is collected as it were into a single point, which they are to guard above all things, as that on which their happiness and reputation wholly depend. At first sight this may appear a capricious regulation; but a moment's reflection will convince us of the contrary. In the married state so much confidence is necessarily reposed in the fidelity of women to the beds of their

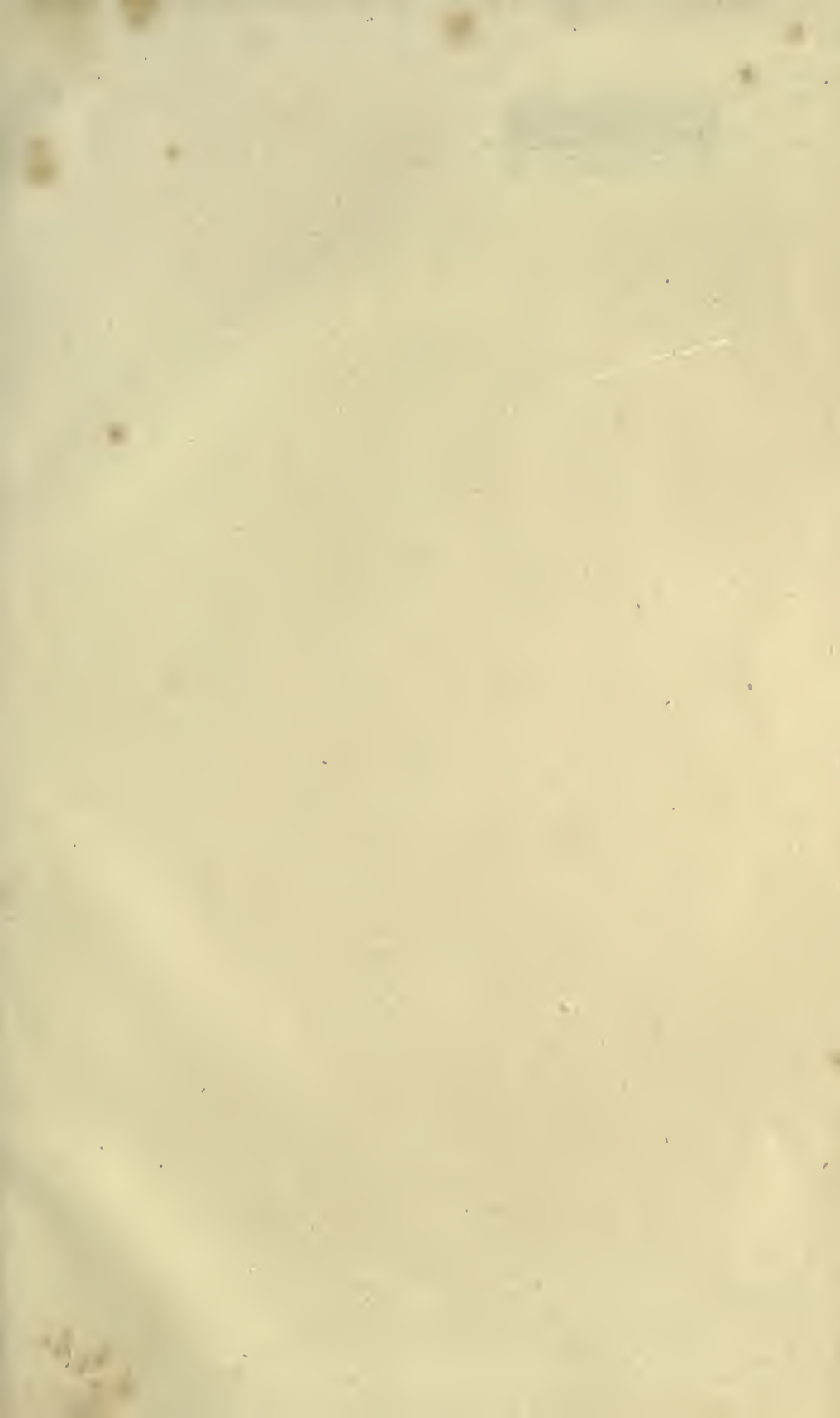
husbands, and evils so great result from the violation of that fidelity, that, whatever contributes in any degree to its preservation, must be agreeable to him who, in establishing the laws of nature, intended them to be subservient to the real happiness of all his creatures. But nothing contributes so much to preserve the fidelity of wives to their husbands as the impressing upon the minds of women the highest veneration for the virtue of chastity. She who, when unmarried, has been accustomed to grant favors to different men, will not find it easy, if indeed possible, to resist afterwards the allurements of variety, after marriage. It is therefore a wise institution, and agreeable to the will of Him who made us, to train up women so as that they may look upon the loss of their chastity as the most disgraceful of all crimes, as that which sinks them in the order of society, and robs them of all their value. In this light virtuous women actually look upon the loss of chastity. The importance of that virtue has been so deeply impressed upon their minds, and is so closely associated with the principle of honor, that they cannot think but with abhorrence upon the very deed by which it is lost. He therefore who, by fraud and falsehood, persuades the unsuspecting girl to deviate in one instance from the honor of the sex, weakens in a great degree her moral principle; and, if he reconcile her to a repetition of her crime, he destroys that principle entirely, as she has been taught to consider all other virtues as inferior to that of chastity. Hence it is that the hearts of prostitutes are generally steeled against the miseries of their fellow-creatures; that they lend their aid to the seducer in his practices upon other girls; that they lie and swear, and steal without compunction; and that too many of them hesitate not to commit murder, if it can serve any selfish purpose of their own. The loss of virtue, though the greatest that man or woman can sustain, is not the only injury which the seducer brings upon the girl whom he deceives. She cannot at once reconcile herself to prostitution, or even to the loss of character; and while a sense of shame remains in her mind, the misery which she suffers must be exquisite. She knows that she has forfeited what in the female character is most valued by both sexes; and she must be under the perpetual dread of a discovery. She cannot even confide in the honor of her seducer, who may reveal her secret in a fit of drunkenness, and thus rob her of her fame as well as of her virtue; and, while she is in this state of anxious uncertainty, the agony of her mind must be insupportable.

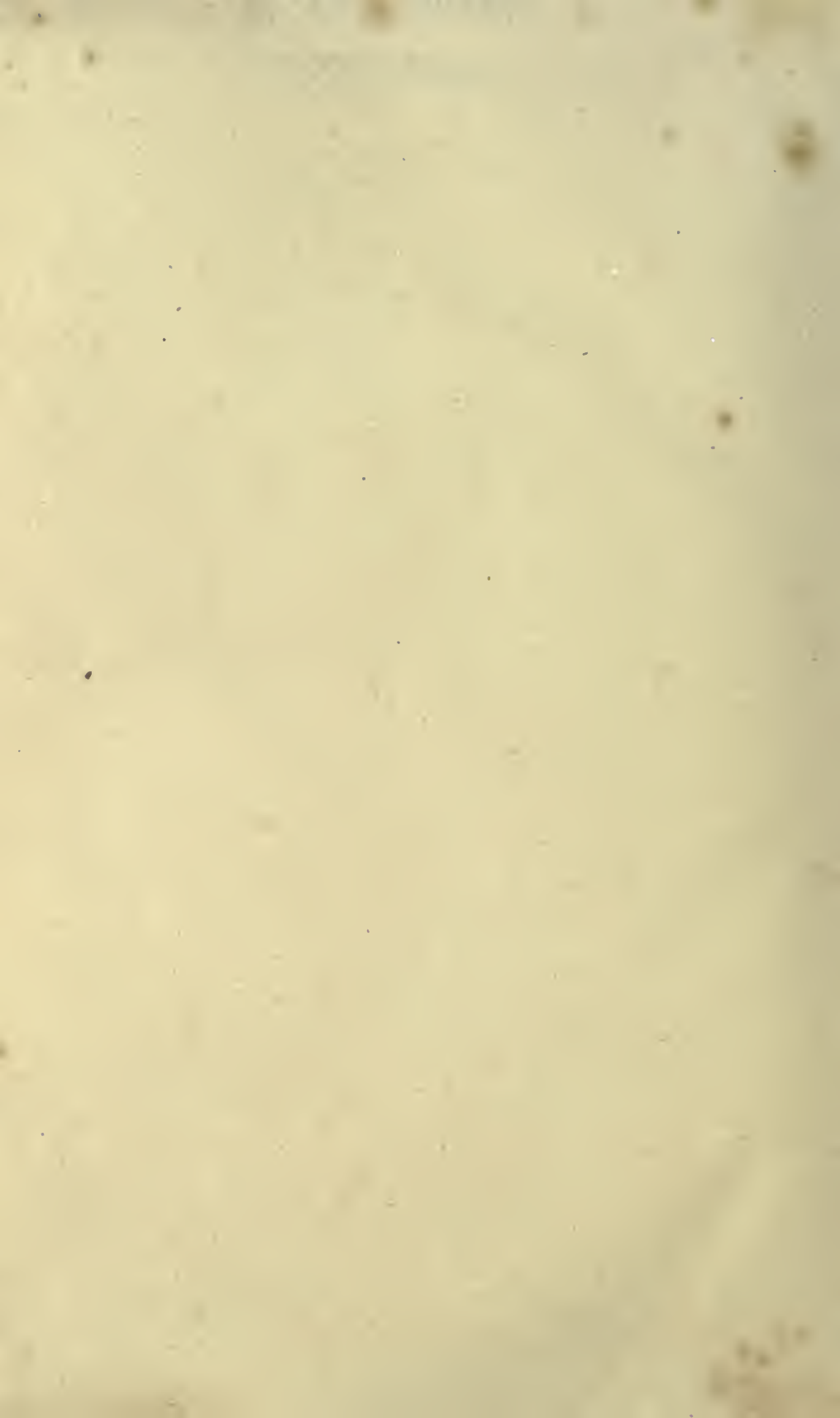
We shall resume this subject at the beginning of the next volume.

END OF VOL. XIX.

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