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THE

LONDON ENCYCLOPÆDIA.

MITHRIDATES, the name of seven kings of Pontus. See PONTUS.

MITHRIDATES VII., surnamed Eupator the Great, succeeded to the throne at the age of eleven years, about A. A. C. 123. The beginning of his reign was marked by ambition, cruelty, and artifice. He murdered his own mother, who had been left by his father coheiress of the kingdom; and he fortified his constitution by antidotes against the poison with which his enemies at court might attempt to destroy him. He early inured his body to hardship, and employed himself in the most manly exercises, often remaining whole months in the country, and making frozen snow and the earth the place of his repose. Ambitious and cruel, he spared no pains to acquire power and dominion. He murdered the two sons whom his sister Laodice had by Ariarathes king of Cappadocia, and placed one of his own children, only eight years old, on the throne. These proceedings alarmed Nicomedes king of Bithynia, who had married Laodice the widow of Ariarathes. He suborned a youth to be king of Cappadocia, as the third son of Ariarathes; and Laodice was sent to Rome to impose upon the senate, and assure them that her third son was now alive, and that his claim to the kingdom of Cappadocia was just. Mithridates, on his part, sent to Rome Gordius the governor of his son; who solemnly declared before the Roman people, that the youth who sat on the throne of Cappadocia was the third son and lawful heir of Ariarathes, and that he was supported as such by Mithridates. The Roman senate, to settle the dispute, took Cappadocia from Mithridates, and Paphlagonia from Nicomedes. These two kingdoms, being thus separated from their original possessors, were presented with their freedom and independence; but the Cappadocians refused it, and received Ariobarzanes for king. Such were the first seeds of enmity between Rome and the king of Pontus. Mithridates, to destroy their power in Asia, ordered all the Romans in his dominions to be massacred in one night; when no fewer than 150,000, according to Plutarch, or 80,000, as Appian mentions, were made the victims of his cruelty. This called aloud for vengeance. Aquilius, and soon after Sylla, marched against Mithridates with a large army. The former was made prisoner; but Sylla obtained a victory over the king's generals; and another decisive engagement rendered him master of all Greece, Macedonia, Ionia, and Asia Minor. This ill fortune was aggravated by the loss of about 200,000 men, who were killed in the several engagements that had been fought; and Mithridates, weakened by repeated ill success by sea and land, sued for peace; which he obtained on condition of defraying the expenses which the Romans had incurred by the war, and of remaining satisfied with his paternal possessions. But Mithridates not long after took the field with an army of 140,000 infantry and 16,000 horsemen, which consisted of his own forces and those of his son-in-law Tigranes king of Armenia. With such a numerous army he soon made himself master of the Roman provinces in Asia; as the Romans, relying on his fidelity, had withdrawn the greatest part of their armies. But the news of his warlike preparations were no sooner heard than Lucullus marched into Asia, and blocked up the camp of Mithridates, who was then besieging Cyzicus. The Asiatic monarch escaped, and fled into the heart of his kingdom. Lucullus pursued him, and would have taken him prisoner after a battle, had not the avarice of his soldiers prevented. The appointment of Glabrio to the command instead of Lucullus, was favorable to Mithridates, who recovered the greatest part of his dominions. The sudden arrival of Pompey, however, soon put an end to his victories. A battle was fought near the Euphrates by moon-light, and a universal overthrow ensued. Mithridates, bold in his misfortunes, rushed through the thickest ranks of the enemy at the head of 800 horsemen, 500 of whom perished in the attempt to follow him. He fled to Tigranes, but that monarch now refused him an asylum. He however found a safe retreat among the Scythians; and though destitute of power, friends, and resources, yet he still meditated the overthrow of the Roman empire. But his wild projects were rejected by his followers, and he sued for peace. Pompey declared that, to obtain it, Mithridates must ask it in person. Scorning to trust to his enemy, he resolved to conquer or die; but his subjects refused to follow him, and revolting, made his son Pharnaces king, who, according to some, ordered him to be put to death. This unnatural treatment broke the heart of Mithridates; he obliged his wife to poison herself, and attempted to do the same. But the frequent antidotes he had taken in youth fortified his constitution against the poison; and, when this failed, he attempted to stab himself. The blow not proving mortal, a Gaul, at his own request, gave him the fatal stroke, about A. A. C. 64. Such was the miserable end of a man, who, according to Roman authors, proved a more powerful and indefatigable adversary to Rome than Pyrrhus, Perseus, Antiochus, or even Hannibal himself. Mithridates has been commended for his virtues, and censured for his vices. As

a commander he deserves the most unbounded applause; and it creates admiration to see him waging war, with such success, during so many years, against the most powerful people on earth, led to the field by a Sylla, a Lucullus, and a Pompey. The greatest rejoicings took place in Rome and in the Roman armies at the news of his death: twelve weeks were appointed for public thanksgivings to the gods; and Pompey, who had sent the first intelligence of his death to Rome, and partly hastened his fall, was rewarded with uncommon honors. It is said that Mithridates conquered twenty-four nations, whose different languages he knew, and spoke with the same fluency as his own. He was acquainted with the Greek language, and even wrote in it a treatise on botany. His skill in physic is well known. Superstition as well as nature had united to render him great; and Justin says his birth was accompanied by the appearance of two large comets, for seventy days successively, whose splendor excelled that of the meridian sun.

MITHRIDATICUM BELLUM, the Mithridatic war, one of the longest and most celebrated wars ever carried on by the Romans against a foreign power. See PONTUS.

MIT'IGATE, *v. a.* } Fr. *mitiger;* Lat. *miti-*
MITIGA'TION, *n. s.* } *go.* To temper; allay; alleviate: mitigation, abatement, or qualification, of that which is harsh, penal, or painful.

Mishaps are mastered by advice discreet,
And counsel *mitigates* the greatest smart.
Faerie Queene.

We could greatly wish that the rigour of their opinion were allayed and *mitigated.* *Hooker.*

They caused divers subjects to be indicted of sundry crimes; and when the bills were found they committed them, and suffered them to languish long in prison, to extort from them great fines and ransoms, which they termed compositions and *mitigations.* *Bacon's Henry VII.*

I undertook
Before thee; and, not repenting, this obtain
Of right, that I may *mitigate* their doom,
On me derived. *Milton's Paradise Lost.*

A man has frequent opportunity of *mitigating* the fierceness of a party, of softening the envious, quieting the angry, and rectifying the prejudiced.
Addison's Spectator.

Since that period, remedies have been applied to it, if not of permanent cure, at least of temporary *mitigation.* *Canning.*

MITRA, in Roman antiquity, a cap or covering for the head, worn by the ladies, and sometimes by the men; but it was looked upon as a mark of effeminacy in the last, especially when it was tied upon their heads.

MI'TRE, *n. s.* } Fr. *mitre;* Lat. *mitra;* Gr.
MI'TRED, *adj.* } μιτρα. An ornament or crown for the head; particularly a priestly or episcopal crown: hence a carpenter's pointed joint, i. e. like the acute-angled ornaments of a mitre.

Nor Pantheus, thee, thy *mitre,* nor the bands
Of awful Phœbus, saved from impious hands.
Dryden.

Mitred abbots, among us, were those that were exempt from the diocesan's jurisdiction, as having within their own precincts episcopal authority, and being lords in parliament were called abbots sovereign.
Ayliffe's Parergon.

Shall the loud herald our success relate,
Or *mitred* priest appoint the solemn day? *Prior.*

Bishopricks or burning, *mitres* or faggots, have been the rewards of different persons, according as they pronounced these consecrated syllables, or not.
Watts.

A MITRE is a sacerdotal cap pointed and cleft at top, worn by bishops and certain abbots on solemn occasions. The high-priest among the Jews wore a mitre, as did also the inferior priests.

MITRE, in architecture, is an angle that is just 45°, or half a right one. If the angle be a quarter of a right angle, they call it a half mitre. To describe such angles, they have an instrument called the mitre square; with this they strike mitre lines on their quarters or battens; and for despatch they have a mitre box, as they call it, which is made of two pieces of wood, each about an inch thick, one nailed upright on the edge of the other; the upper piece has the mitre lines struck upon it on both sides, and a kerf to direct the saw in cutting the mitre joints readily, by only applying the piece into this box.

MITRE is used by the writers of the Irish history for a sort of base money, which was very common there about 1270, and for thirty years before and after. There were several other pieces called, according to the figures impressed upon them, rosaries, lionades, eagles, &c. They were imported from France and other countries, and were so much below the proper currency, that they were not worth a halfpenny each. They were at length decried in 1300, and good coins struck in their place. These were the first Irish coins in which the sceptre was left out. They were struck in the reign of Edward, the son of Henry III., and are still found among the other antiquities of that country. They have the king's head in a triangle full-faced. The penny, when well preserved, weighs 22 grs.; the halfpenny 10½ grs.

MITROWITZ, a town on an island in the river Save in the Austrian states of Sclavonia. It is the chief place of the frontier district of Peter Waradein, and has a good trade in hides and cattle. It was ceded to Austria by the Turks, in 1699. Population 3500. Sixteen miles S. S. W. of Peter Waradein.

MITTAU, or MIETAU, the capital of the government of Courland, in European Russia, is situated on the river Aa, in the province of Semigallia. It has above 12,000 inhabitants, of whom nearly half are Germans, and about 1000 Jews. The town has generally an uninviting aspect; and the ramparts are fallen into decay. The churches are a Catholic, a Calvinist, and two Lutheran, in only one of which the service is performed in Lettonian, the language of the country: in the others the German is used. The public school of Mittau is the principal in Courland: it has also an academical gymnasium, founded by the duke of Courland, in 1775, but both like the ancient castle are in a decayed state. The manufactures are linen, stockings, leather, and soap. This town was for several years during his exile the residence of Louis XVIII. of France. It is 140 miles north of Konigsberg, and fifty-six west of Riga.

MIT'TENS, *n. s.* Fr. *mitaine;* Lat. *manica.* Gloves without fingers.

December must be expressed with a horrid aspect, as also January clad in Irish rug, holding in furred *mittens* the sign of Capricorn.
Peacham on Drawing.

MIT'TENT, *adj.* Lat. *mittens.* Sending out or forth.

The fluxion proceedeth from humours peccant in quantity or quality, thrust forth by the part *mittent* upon the inferior weak parts. *Wiseman's Surgery.*

MITTENWALD, the capital of the county of Wenderfels, Bavaria, is situated on the Iser, and has 1800 inhabitants. Thirteen miles N. N. W. of Innspruck.

MITTERBURG, a town of the Austrian kingdom of Illyria, has a castle and a rock, and a population of 1650. Thirty miles south-east of Trieste.

MIT'TIMUS, *n. s.* Lat. *mittimus, mitto,* to send. A warrant by which an offender is committed to prison.

The evil spirit hath said the evening before, tomorrow shalt thou be with me; and now Saul hasteth to make the devil no liar. Rather than fail, he gives himself his own *mittimus.* *Bp. Hall.*

MITTIMUS, in law, has two significations: 1. A writ for removing or transferring of records from one court to another. 2. A precept or command in writing, under the hand and seal of a justice of the peace, directed to the gaoler of some prison, for the receiving and safe keeping of an offender charged with any crime, until he be delivered by due course of law.

MITTWEYDA, a town of Saxony, in the circle of Leipsic, has manufactures of cotton, muslin, linen, hats, and worsted stockings. Population 3800. Old Mittweyda is a small adjoining village. Thirty-two miles west by south of Dresden. Both have often suffered by fire.

MITURE, a large river of the Caraccas, entering the Caribbean Sea, near the mouth of the gulf of Maracaibo, in lat. 11° 27′ N. There is a settlement of the same name on its banks.

MITYLENÆ, MITYLENE, or MYTELENE, in ancient geography, a powerful and affluent city, capital of the island of Lesbos. It received its name from Mitylene, the daughter of Macareus, a king of the country. It is greatly commended by the ancients for the stateliness of its buildings and the fruitfulness of its soil, but more particularly for the great men it produced: Pittacus, Alcæus, Sappho, Terpander, Theophanes, Hellanicus, &c., were all natives of Mitylene. It was long a seat of learning; and, with Rhodes and Athens, had the honor of having educated many of the great men of Rome and Greece. In the Peloponnesian war the Mityleneans suffered greatly for their revolt from Athens; and in the Mithridatic wars they had the boldness to resist the Romans, and disdain the treaties which had been made between Mithridates and Sylla. It is now called Metelin.

MITZLER (Laurence Charles de Kolof), a German musical composer of eminence, was born at Vettlesheim in 1711. He received his education at Anspach, and studied music under Erhman and Carby. In 1731 we find him at the university of Leipsic, where he made a respectable proficiency in mathematics and natural philosophy, and after a residence of twelve years gave public lectures in these branches of science. He published a treatise on the claims of music to be considered as a science, and lectured upon it. At length he accompanied a Polish nobleman to Warsaw, and grew into so great favor at court as to obtain from the king a patent of nobility. Other works of his are, a Musical Library, or an Analysis of Books and Writings on Music, Leipsic, 3 vols. published between the years 1738 and 1754; A Musical Illustration of the War carried on by the emperor Charles VI., against the Allied Forces, Wittenberg, 1753; The Elements of Thorough Bass, Leipsic, 1739; The Musical Oculist, &c., 1740; and a German Translation of Fux's Gradus ad Parnassum, 1742. His death took place in 1788.

MIX', *v. a.* & *v. n.* } Teut. *mischin;* Lat.
MIX'TION, *n. s.* } *misceo.* To mingle; unite
MIX'TURE. } to something else; form of different substances or materials; to be united in one substance: mixtion and mixture mean, intromission; the art of mixing; state of being mixed; or the mass formed; in particular that which is added or mixed.

A *mixed* multitude went up with them, and flocks and herds. *Exod.* xii. 38.

Ephraim hath *mixed* himself among the people.
Hos. vii. 8.

He sent out of his mouth a blast of fire, and out of his lips a flaming breath, and out of his tongue he cast out sparks and tempests; and they were all *mixed* together. 2 *Esdr.*

O happy *mixture,* wherein things contrary do so qualify and correct the one the danger of the other's excess, that neither boldness can make us presume, as well as we are kept under with the sense of our own wretchedness; nor, while we trust in the mercy of God through Christ Jesus, fear be able to tyrannise over us! *Hooker.*

Brothers, you *mix* your sadness with some fear;
This is the English not the Turkish court.
Shakspeare.

Come, phial!———
What if this *mixture* do not work at all? *Id.*

I have chosen an argument, *mixt* of religious and civil considerations; and likewise *mixt* between contemplative and active. *Bacon's Holy War.*

To raise desert and virtue by my fortune,
Though in a low estate, were greater glory,
Than to *mix* greatness with a prince that owns
No worth but that name only. *Massinger.*

Others, perceiving this rule to fall short, have pieced it out by the *mixtion* of vacuity among bodies, believing it is that which makes one rarer than another. *Digby on Bodies.*

She turns, on hospitable thoughts intent;
What choice to choose for delicacy best,
What order, so contrived as not to *mix*
Tastes, nor well joined, inelegant, but bring
Taste after taste, upheld with kindest change.
Milton.

But is there yet no other way, besides
These painful passages, how we may come
To death, and *mix* with our connatural dust?
Id.

Air, and ye elements, the eldest birth
Of nature's womb, that in quaternion run
Perpetual circle, multiform; and *mix*
And nourish all things. *Id.*

They are not to be lightly passed over as elementary or subterraneous *mixtions*. *Browne.*

Neither can God himself be otherwise understood, than as a mind free and disentangled from all corporeal *mixtures*, perceiving and moving all things. *Stillingfleet.*

Cicero doubts whether it were possible for a community to exist, that had not a prevailing *mixture* of piety in its constitution. *Addison's Freeholder.*

While we live in this world, where good and bad men are blended together, and where there is also a *mixture* of good and evil wisely distributed by God, to serve the ends of his providence. *Atterbury's Sermons.*

Those liquors are expelled out of the body, which, by their *mixture*, convert the aliment into an animal liquid. *Arbuthnot.*

I, by baleful furies led,
With monstrous *mixture* stained my mother's bed. *Pope.*

The best punch depends on a proper *mixture* of sugar and lemon. *Shenstone.*

MIXTURE is a compound of several different bodies in the same mass. Simple mixture consists only in the simple apposition of parts of different bodies to each other. Thus, when powders of different kinds are rubbed together, the mixture is only simple, and each of the powders retains its particular characters. In like manner, when oil and water are mixed together, though the parts of both are confounded, so that the liquor may appear to be homogeneous, we cannot say that there is any more than a simple apposition of the parts, as the oil and water may very easily be separated. But the case is very different when bodies are chemically mixed; for then one or both bodies assume new properties, and can by no means be discovered in their proper form without a particular chemical process adapted to this purpose. Hence chemical mixture is attended with many phenomena which are never observed in simple mixtures, such as heat, effervescence, &c. To chemical mixture belongs the union of acids and alkalies, the amalgamation of metals, solution of gums, &c., and upon it depend many of the principal operations of chemistry.

MIXTURE, in pharmacy, a medicine which differs from a julep in this respect, that it receives into its composition not only salts, extracts, and other substances dissoluble in water; but also earths, powders, and such substances as cannot be dissolved.

MIZMAZE, *n. s.* Of MAZE, reduplicated. A cant word to express a maze, labyrinth, or any thing confused.

Those who are accustomed to reason have got the true key of books, and the clue to lead them through the *mismaze* of variety of opinions and authors to truth. *Locke.*

MIZQUE, a province in the government of Santa Cruz de la Sierra, Peru, bounded south by the province of Yamparaes, south-west by that of Charcas, west by that of Cochabambas, and north by the Andes. It is of hot temperature, and produces wheat, maize, pulse, sugar-cane, and wine. Population 62,000. The capital is a decayed town of the same name.

MIZRAIM, or MISRAIM, the second son of Ham, and grandson of Noah; supposed to have been the same with Menes, the first king of Egypt. See EGYPT. Hence

MIZRAIM, or MISRAIM, is used in scripture to denote the Higher and Lower EGYPT, which see. It sometimes occurs singular, Mazor: 2 Kings xix.; Isaiah xix.; Micah vii.

MIZ'ZEN, *n. s.* Dan. and Swed. *mesan;* Ital. *mizzana;* Span. *mezana;* Belg. *bizaan;* Fr. *basenne.* The mast nearest a ship's stern.

The *mizzen* is a mast in the stern or back part of a ship: in some large ships there are two such masts; that standing next the main mast is called the main *mizzen*, and the other near the poop the bonaventure *mizzen:* the length of a *mizzen* mast is half that of the main mast, or the same with that of the main topmast from the quarterdeck, and the length of the *mizzen* topmast is half that. *Bailey.*

A commander at sea had his leg fractured by the fall of his *mizzen* topmast. *Wiseman's Surgery.*

MIZ'ZLE, or MISTLE, *v. n.* From MIST, which see. To rain in small or dew-like drops.

A woman of fashion who is employed in remarks upon the weather, who observes from morning to noon that it is likely to rain, and from noon to night that it spits, that it *mizzles*, that it is set in for a wet evening; and, being incapable of any other discourse, is as insipid a companion, and just as pedantic, as he who quotes Aristotle over his tea, or talks Greek at a card-table. *B. Thornton.*

MNEMONICS, or artificial memory, had its advocates and professors in the ancient world. Herodotus tells us it was accurately taught and practised in Egypt; whence it travelled to Greece. Chiron, the astronomer, we know, also arranged the stars upon a method of this kind twelve centuries before Christ. The Romans, likewise, cultivated this art with success.—Cic. de Rhet. lib. iii., and de Orat. lib. ii.; Quint. Inst. Orat. lib. xi.

In modern times artificial memory has been elaborately treated by Dr. Grey, in his well known Memoria Technica. We have been favored, for the use of this work, with a communication from Mr. Todd, of Winchester, accompanying his splendid Historical Tablets and Medallions, 4to., founded on the principle, but exhibiting much more simplicity than Dr. Grey's scheme. This author quotes a happy passage from Addison, as suggesting the original idea of his work.

'There is one advantage,' says that great writer, Dialogues upon Ancient Medals, 'that seems to me very considerable, which is the great help to memory one finds in medals: for my own part, I am very much embarrassed in the names and ranks of the several Roman emperors, and find it difficult to recollect upon occasion the different parts of their history; but your medallists, upon the first naming of an emperor, will immediately tell you his age, family, and life. To remember where he enters in the succession, they only consider in what part of the cabinet he lies; and, by running over in their thoughts such a particular drawer, will give you an account of all the remarkable parts of his reign.' But this is not all. 'For this too,' says the same author, 'is an advantage medals have over books—that they tell their story much quicker, and sum up a whole volume in twenty

or thirty reverses. They are indeed the best epitomes in the world, and let you see, with one cast of an eye, the substance of above a hundred pages. Another use of medals is, that they not only show you the actions of an emperor, but at the same time mark out the year in which they were performed. Every exploit has its date set to it. A cabinet of medals is a body of history.'

'It was the conviction of these facts,' continues Mr. Todd, 'united with the preceding observations, that suggested the idea upon which the following tablets are founded. The theory is simply this:—Instead of a large room or building, which, as we have already explained, was formerly made use of for this purpose, there is a cabinet or associating key, Plate MNEMONICS, fig. 1, consisting of nine distinct parts, arranged and disposed in order. Each of these parts, or tablets (as they are afterwards called), is distinguished by its peculiar color, and subdivided into twelve equal squares, or compartments, the whole of which are numbered in consecutive order. Each color occurs twice, but in such regular order, and so far separated, that no mistake can easily arise: five perfectly distinct colors, thus arranged, being less liable to confusion than nine not so well contrasted. They appear thus:—

Blue.	Brown.	Green.	Pink.	Yellow.
1	2	3	4	5
6	7	8	9	

Frequently repeat these, and revolve them in your thoughts, till you have obtained such an accurate knowledge of their relative situation, as to be enabled to run them over one after another without hesitation, and in any order that may be necessary. Impress them, by these means, so strongly upon the momory, that every part, and every single square in each part, may be perfectly familiar to the mind's eye, even long after the engraving is removed. These compartments are intended, as the subsequent plates will exemplify, for the reception of one or more series of medals, properly arranged, commemorating a regular succession of events, the names of sovereigns, or other historical subjects which you may wish to remember, with the date of each attached. And it will afterwards be found almost impossible, when reviewing the several parts and subdivisions of this cabinet or key, not to associate the medal, together with its inscription, previously annexed to each particular square. A very few repetitions, with ordinary attention, will be found sufficient to impress the series almost indelibly upon the memory.

'But we shall frequently find it necessary to know and preserve something more than the mere idea of things; we shall wish for, 2. The ready and accurate remembrance of their dates: the accomplishment of which is usually found to be a very difficult and uncertain task. It will be generally admitted that there is the greatest difficulty in retaining numbers. They are like grains of sand, which will not cohere in the order in which we place them; but by transmuting figures into letters, which easily cohere in every form of combination, we fix and retain numbers in the mind with the same ease and certainty with which we remember words; and if language could have been so contrived, that the same word, or nearly the same word, which gave the name of a thing, should also have contained its date, there would have been little, if any, difficulty in the attainment.

'In the first place, then, it is necessary to learn perfectly the numerical key, Plate MNEMONICS, fig. 2, which, corresponding with the first part of the cabinet, consists of twelve squares, in each of which will be found its proper figure, together with one consonant, and one vowel, or diphthong.* These letters are to represent the figures to which they are respectively attached; so that you may be able, at pleasure, to form any number into a technical syllable, or to resolve such a syllable already formed into the number which it stands for. Thus,

10 may be represented by	*az* or *by*.
325	*tel* or *idu*.
431	*fib* or *ota*.
1491	*afna* or *bona*.
200	*eg*.
4000	*oth*.

and so for any other numbers.

Now, to remember the date of any single event in history or chronology, a word is formed, the beginning of which, being invariably the first syllable or syllables of the thing for which a date is sought, will, by frequent repetition, of course suggest the latter or chronological part, which is so contrived, by the method already explained, as to give the date. Thus, the Deluge happened in the year B. C. 2348; this is signified by the technical word Del*étor*—Del. standing for DELUGE, and *étor* for 2348. So, the emperor Constantine the Great removed the seat of empire to Constantinople, A. D. 328; for this you have the word Constán*ter*—Constán. standing for CONSTANTINE, and *ter* for 328. A reference to the tablets will, it is hoped, clear up any little obscurity in this description.

'The situation or locality of any medal in the tablet, having already suggested the general and relative period of the event sought—which indeed will often be sufficient for the occasion—the technical word will not fail to furnish the

* Note.—The diphthongs are to be considered but as one letter, or rather as representing only one figure. Note, also, that *y* may be pronounced as *wi*, for the more easily distinguishing it from *i*; as *syt*, 603, pronounced *swit*. The letters are assigned to the figures somewhat arbitrarily; but the following reasons, trifling as they are, may contribute to impress the series more deeply on the memory. Vowels —*a*, *e*, *i*, *o*, *u*, in order, naturally represent 1, 2, 3, 4, 5. The diphthongs represent the total of the two vowels of which they are composed, as *au* (composed of *a* 1, and *u* 5,) stands for 6; and so of the rest. Consonants.—When they can be conveniently retained, the initials are made use of, as *t* for three, *f* four, *s* six, and *n* nine. The letter *p* is the emphatic letter in the Latin word *sep*tem, seven, and *r* may be easily remembered for eight. The first consonant *b* represents 1, and *l*, being the Roman letter for 50, stands for 5. For the cipher, 0, you have the two last letters of the alphabet, *y* and *z*. For 100 there is *g*, and *th* for *th*ousand.

particular year in which it happened. First, the tablet: then the square; and, lastly, the word which brings the date; they are so linked together, and have been so closely associated in your mind, from first to last, that it will be almost impossible to retain a separate idea of either, unconnected with the others. Those things which are first and always seen together, learnt together, and deposited together in the mind, will not be recollected, except in the same connexion: the memory will restore with equal readiness and fidelity that which was entrusted to it with so much care, and in such particular order. And to render this connexion more complete and useful, as well as to shorten his first labor, the student should commit the technical words and lines to memory chiefly from the medals themselves, and occasionally repeat them with the tablets, either actually or mentally, before his eyes: for vision, or the sense of seeing, is to be considered throughout as the very essence of our system.'

We may add, there is an appropriate explanation to each series of tablets, and the reader is assured, by way of encouragement, that the whole may be perfectly learnt, without the aid of extraordinary abilities, in the space of a few days; and, what is more, that when once well learnt, and supported by occasional practice, it will never be forgotten.

MNEMOSYNE, in the mythology, the daughter of Cœlus and Terra. She married Jupiter, by whom she had the nine Muses. Mnemosyne signifies 'memory;' and therefore the poets rightly called Memory the mother of the Muses, because it is to that mental endowment that mankind are indebted for their progress in science

MNIUM, marsh moss, a genus of the natural order of musci, and cryptogamia class of plants. The anthera is operculated; the calyptra smooth, the female capitulum naked and powdery, remote. There are numerous species, of which several are natives of Britain; but none have any remarkable property except the two following.

M. fontanum is an elegant moss, frequent in bogs, and on the borders of cold springs. It is from two to four inches high: the stalks are simple at the base, and covered with a rusty down; but higher up are red, and divided into several round, single, taper branches, which proceed nearly from the same point. The leaves are not more than one-twelfth of an inch long, lanceolate and acute, of a whitish green color; and so thinly set that the red stalk appears between them. This moss, as it may be seen at a considerable distance, is a good mark to lead to the discovery of clear and cold springs. Linnè informs us that the Laplanders are well acquainted with this sign. Mr. Withering informs us that, wherever this moss grows, a spring of fresh water may be found without much digging.

M. hygrometricum, grows in woods, heaths, garden-walks, walls, old trees, decayed wood, and where coals or cinders have been laid. It is stemless, has tips inversely egg-shaped, nodding, and bright yellow. If the fruit-stalk is moistened at the base with a little water or steam, the head makes three or four revolutions: if the head is moistened, it turns back again.

MO, or Moe, *adj.* & *adv.* Sax. ma, mape; Goth. *mar; mer;* Scotch, *mae.* An old method of writing More, which see.

And if ye vouchsauf that it be so
Telle me anon withouten wordes *mo*
And I wol early shapen me therefore.
Chaucer. Cant. Tales.

With oxbows, and oxyokes, with other things *mo*,
For oxteem and horse teem in plough for to go.
Tusser.

Calliope and muses *mo*,
Soon as your oaken pipe begins to sound
Their ivory lutes lay by. *Spenser.*

Sing no more ditties, sing no *mo*,
Of dumps so dull and heavy;
The frauds of men were ever so,
Since Summer first was leafy. *Shakspeare.*

MOAB, in ancient geography, a country of Arabia Petræa; so called from Moab the son of Lot, to whose posterity this country was allotted by divine appointment, Deut. ii. 9. It was originally occupied by the Emims, a race of giants extirpated by the Moabites, ib. 10. Moab anciently lay to the south of Ammon, before Sihon the Amorite stripped both nations of a part of their territory, afterwards occupied by the Israelites, Numb. xxii.; and then Moab was bounded by the Arnon on the north, the Asphaltites on the west, the brook Zared and the mountains Abarim on the east. See Mab.

MOAN, *v. a., v. n.,* & *n. s.* Sax. mœnan, to grieve. To lament; express grief; grieve: as a substantive it means audible grief or lamentation; a low sorrowful noise.

I have disabled mine estate,
By shewing something a more swelling port
Than my faint means would grant continuance;
Nor do I now make *moan* to be abridged
From such a noble rate.
Shakspeare. Merchant of Venice.

The fresh stream ran by her, and murmured her *moans;*
The salt tears fell from her, and softened the stones.
Shakspeare.

Sullen *moans*,
Hollow groans,
And cries of tortured ghosts. *Pope's St. Cæcilia.*

The generous band redressive searched
Into the horrors of the gloomy jail,
Unpitied and unheard, where misery *moans. Thomson.*

MOAT, *n. s.* & *v. a.* Fr. *motte;* Span. and Port. *meta;* barb. Lat. *mota;* or, as Minsheu quaintly says, 'quod sit submota terra, et immersa aqua.' A canal or ditch round a building or enclosed grounds: to surround with such a canal.

The castle I found of good strength, having a great *moat* round about it, the work of a noble gentleman, of whose unthrifty son he had bought it.
Sidney.

I will presently to St. Luke's; there at the *moated* Grange resides this dejected Mariana.
Shakspeare. Measure for Measure.

The fortress thrice himself in person stormed;
Your valor bravely did the assault sustain,
And filled the *moats* and ditches with the slain.
Dryden.

An arm of Lethe, with a gentle flow,
The palace *moats*, and o'er the pebbles creeps,
And with soft murmurs calls the coming sleeps. *Id.*

Moat, or ditch, in fortification. The brink of the moat, next the rampart, is called the scarp; and the opposite one, the counterscarp. A dry moat round a large place, with a strong garrison, is preferable to one full of water; because the passage may be disputed inch by inch, and the besiegers, when lodged in it, are continually exposed to the bombs, granades, and other fireworks, which are thrown incessantly from the rampart into their works. In the middle of dry moats there is sometimes another small one, called cuneite; which is generally dug so deep till they find water to fill it. The deepest and broadest moats are accounted the best: but a deep one is preferable to a broad one: the ordinary breadth is about twenty fathoms, and the depth about sixteen. To drain a moat that is full of water, they dig a trench deeper than the level of the water, to let it run off; and then throw hurdles upon the mud and slime, covering them with earth or bundles of rushes, to make a firm passage. See Fortification.

MOATAZALITES, or Separatists, a religious sect among the Turks, who deny all forms and qualities in the Divine Being; or who divest God of his attributes.

MOB, *n. s.* & *v. a.*
Mob'ile,
Mobil'ity,
Mob'le, *v. a.*
} Lat. *mobile*, moveable (applied metaphorically to a crowd). The crowd; a tumult: to overbear with clamor: mobile (Fr. *mobile*) is also used for the crowd, but is a gallicism: mobility is used both in the literal sense of the power of being moved, activity or nimbleness; and for the populace, or crowd, 'Moved with a feather, tickled by a straw.' To moble, written also mable, perhaps by a ludicrous allusion to the Fr. *je m'habille*, says Johnson, 'is to dress grossly or inelegantly.'

But who, oh! who, had seen the *mobled* queen,
Run barefoot up and down. *Shakspeare. Hamlet.*

Iron, having stood long in a window, being thence taken, and by a cork balanced in water, where it may have a free *mobility*, will bewray a kind of inquietude. *Wotton.*

The present age hath attempted perpetual motions, whose revolutions might out-last the exemplary *mobility*, and out-measure time itself. *Browne's Vulgar Errours.*

She singled out with her eye as commander-in-chief of the *mobility*. *Dryden's Don Sebastian.*

Dreams are but interludes, which fancy makes,
When monarch reason sleeps, this mimick wakes;
Compounds a medley of disjointed things,
A court of cobblers, and a *mob* of kings. *Dryden.*

The *mobile* are uneasy without a ruler, they are restless with one. *L'Estrange.*

Long experience has found it true of the unthinking *mobile*, that the closer they shut their eyes the wider they open their hands. *South.*

A cluster of *mob* were making themselves merry with their betters. *Addison's Freeholder.*

You tell, it is ingenite, active force,
Mobility, or native power to move;
Words which mean nothing. *Blackmore.*

The Romans had the advantage by the bulk of their ships, and the fleet of Antiochus in the swiftness and *mobility* of theirs, which served them in great stead in the flight. *Arbuthnot.*

By this time I suppose you have ventured to take your fingers out of your ears, being delivered from the deafening shouts of the most zealous *mob* that ever strained their lungs in the cause of religion. *Cowper's Letters.*

Mobile, a small country, post town, and port of entry, Alabama territory, on the west side of the river of the same name at its entrance into Mobile Bay; thirty-three miles north of Mobile Point, which is on the east side of the mouth of the bay, fifty west by north of Pensacola, ten W. S. W. of Blakeley, 100 by land, and 120 by water south of St. Stephen's, 170 E. N. E. of New Orleans. The site of the town is on a beautiful and extensive plain, elevated about twenty feet above the level of the river, and open to refreshing breezes from the bay, of which it commands a handsome prospect. The approach to the harbour, for vessels drawing more than eight feet of water, is circuitous and difficult. Within a low grassy island, which lies opposite to the town, there is a good shelter for vessels.

Mobile was taken possession of by the United States in 1813, at which time it contained about 100 houses, mostly mean decaying wooden buildings of one story. It has since increased considerably, and is now in a very flourishing state, and has considerable trade. It contains a Roman Catholic church, and a printing office, and is defended by a fort. The shipping owned here, in 1816, amounted to 594 tons. A steam boat was then plying between this town and St. Stephen's, and another was building, which was to ply between Mobile and New Orleans, through lake Pontchartrain.

Mobile, a river of Alabama, which is formed by the union of the Alabama and Tombigbee. It widens into a large bay and communicates with the Gulf of Mexico.

Mobile Island, an island formed by the divided stream of the river Mobile, about twenty-six miles long, and five wide. Long. 87° 55′ W., lat. 31° N.

Mobile, Perpetuum. See Motion.

Mobile, Primum, in the ancient astronomy, was a ninth heaven or sphere, imagined above those of the planets and fixed stars. This was supposed to be the first mover, and to carry all the lower spheres round along with it; by its rapidity communicating to them a motion whereby they revolved in twenty-four hours. But the diurnal revolution of the planets is now accounted for, without the assistance of any such primum mobile.

MOCENIGO (Andrew), a native of Venice, in the sixteenth century. He served his country with zeal, being employed in various public affairs, which he managed with success. He was the author of a History of the War sustained by the Republic of Venice, in consequence of the League of Cambray, in four books, which is esteemed for its accuracy. He also wrote a Latin poem on the war with Bajazet II.

MOCHA, a large city of the province of Yemen, Arabia, the principal port of the Red Sea. It was first visited in 1513, by Alphonso Albuquerque, but was then of little consequence. In 1610 we have the first account of any attempt to open a trade here by the British expeditions under Sharpey and Sir Henry Middleton; when

the latter was surprised, and made prisoner, with a number of his men. He afterwards compelled the government to make him redress: and ever since Mocha has continued the chief emporium of this part of the world. The Dutch first established a factory there: they were followed by the French in 1708, and soon after by the English. We had nearly monopolised the small but steady trade carrying on till 1803, when the Americans became formidable rivals in the coffee trade; and soon took off the largest quantity. We believe this was the case down to the late period of the opening of the East India trade.

The country around Mocha is a dreary plain bounded by mountains, and consisting entirely of arid sand. Around the town, indeed, date trees appear in considerable numbers; but their stunted growth shows the poverty of the soil. The climate is intensely hot. The south-east wind blows here for eight months in the year over the burning sands of the interior, and, for the other four months, a north-west wind which has passed over the sands of Arabia. The appearance of the town and its three chief minarets from the sea is handsome; all its buildings are white washed, and the dead line of the flat roofs is agreeably broken by several noble tombs. On entering the place, the filth of the streets and open spaces is sufficiently disgusting: the houses are found to be built of unburnt bricks, with little lime; and hence, if a house be awhile neglected, it becomes a heap of rubbish and mud. The dola's residence is large and lofty, having one front to the sea, and another to a square. Another side is filled up by the residence of the secretary of state, and by an extensive serai built by the Turks. The best houses are facing the sea. They have turreted tops, with ornaments in white stucco. The windows are small, and the upper ones usually circular, formed by thin strata of a transparent stone found in the neighbourhood. The interior is ill contrived, the passages being long and narrow, and the stair-cases steep. The lower ranks live in wicker huts, covered in the inside with mats, and on the outside with a little clay thatched.

The town of Mocha is supposed by lord Valentia to contain about 5000 inhabitants, and is enclosed by a wall about sixteen feet high extending for about half a mile, in nearly a straight line facing the sea. It is too thin every where to resist a cannon shot, or to bear the firing of cannon upon it; while the forts towards the sea would be levelled to the ground by a single broadside from a man of war. They chiefly serve to exclude the Wahabees, whose only mode of reducing a town is to storm it by cavalry. The garrison consists of about 200 musqueteers, and eighty horse.

The staple of Mocha is coffee, of which this part of Arabia has the most excellent in the world. It is here a small shrub, rising to the height of sixteen or eighteen feet, and having leaves about five inches long and two broad. The fruit grows in clusters, and is gathered when of a deep red. Before 1803 nearly the whole quantity was conveyed from Mocha to Jidda, whence it was conveyed to Alexandria, Constantinople, and Europe. The quantity then sent to Jidda is estimated by lord Valentia at 16,000 bales of 305 lbs. each, making 4,880,000 lbs. In 1803, when the Americans began to export it on a great scale, the competition raised the price from thirty-six or forty to fifty dollars per bale. In the following years, 8000 bales were exported by the Americans, and 2000 by the British.

At Mocha are also obtained gum arabic, myrrh, and frankincense (brought from the opposite coast of Berbera in Africa); balm of Gilead or of Mecca, a resinous juice much used in the east as a cosmetic; senna; sharks' fins; rhinoceros' horns and hides; acacia; and civet. The imports from Bombay, chiefly in grain and piece goods, are of very considerable amount. From 1802 to 1806 inclusive they were as follows:

	Sicca rupees.
1802	2,082,531
1803	1,617,650
1804	2,107,010
1805	1,768,339
1806	1,574,452
Total,	9,149,982

or about £914,998 sterling. The returns are al most entirely in money or bullion.

About 250 Banians or Gentoo merchants, who are subject to great oppression, carry on this trade: they do not venture to bring their families thither; but their profits are great: and it is considered more eligible to treat with them than with the Moors or Turks. The English pay a duty of three per cent. on the business done; but other foreigners five. A three masted vessel must pay, on its arrival, duty to the amount of 384 dollars. Those with two masts half. This however is not paid, unless something be sold. Presents are also necessary for permission to land. Long. 43° 20′ E., lat. 13° 20′ N.

Mocha, an uninhabited island on the coast of Chili, upwards of sixty miles in circumference. It is very fertile, and was formerly settled by the Spaniards: at present it is frequented by the whalers of the United States and England, who begin fishing here, as it is well supplied with wild hogs. Lat. 38° 40′ S.

MOCHO Stone, *n. s.* From Mocha, and therefore more properly Mocha-stone.

Mocho-stones are related to the agat, of a clear horny grey, with declinations representing mosses, shrubs, and branches, black, brown, red, in the substance of the stone. *Woodward.*

MOCK, *v. a., v. n., n. s., & adj.*
Mock'able, *adj.*
Mock'er, *n. s.*
Mock'ery, *n. s.*
Mock'ing-bird, *n. s.*
Mock'ingly, *adv.*
} Fr. *mocquer;* Wel. *moccio;* Gr. μωκαω. To imitate in derision; to mimic; ridicule: hence to deceive by false appearances or pretensions; delude; tantalise: as a neuter verb, to make contemptuous sport: as a substantive it signifies ridicule; contempt; sneer; gibe; mimicry: mockable is exposed or liable to derision: mocker, one who practises it; a scorner; scoffer: mockery, derision; scorn; insulting imitation or merriment; vain attempt, or show: mocking-bird, a species of parrot, remarkable for imitating other birds: mockingly, contemptuously; insultingly; delusively.

I am as one *mocked* of his neighbour; the just upright man is *mocked* to scorn. *Job* xii. 4.

Fools make a *mock* at sin. *Prov.* xiv. 9.

Of the holy place they made a *mockery*.
2 *Mac.* viii. 17.

The forlorn maiden whom your eyes have seen,
The laughing-stock of fortune's *mockeries*,
And the only daughter of a king and queen.
Faerie Queene.

A new method they have of turning things that are serious into *mockery*; an act of contradiction by way of scorn, wherewith we were long sithence forewarned. *Hooker.*

Many thousand widows
Shall this his *mock mock* out of their dear husbands;
Mock mothers from their sons, *mock* castles down.
Shakspeare.

We'll dishorn the spirit,
And *mock* him home to Windsor. *Id.*

Tell the pleasant prince, this *mock* of his
Hath turned his balls to gun-stones. *Id.*

I long, till Edward fall by war's mischance,
For *mocking* marriage with a dame of France. *Id.*

Those that are good manners at the court, are as ridiculous in the country, as the behaviour of the country is most *mockable* at court. *Id.*

Our very priests must become *mockers*, if they shall encounter such ridiculous subjects as you. *Id.*

To have done, is to hang quite out of fashion,
Like rusty mail in monumental *mockery*. *Id.*

Now reach a strain, my lute,
Above her *mock*, or be for ever mute. *Crashaw.*

At first every man thinks his fellow *mocks* him; but now, perceiving this serious confusion, their only answer was silence, and ceasing. *Bp. Hall.*

He will not
Mock us with his blest sight, then snatch him hence,
Soon shall we see our hope return. *Milton.*

What shall be the portion of those who have affronted God, derided his word, and made a *mock* of every thing that is sacred? *Tillotson.*

The *mock* astrologer, El astrologo fingido.
Dryden.

That superior greatness and *mock* majesty, which is ascribed to the prince of fallen angels, is admirably preserved. *Spectator.*

Let them have a care how they intrude upon so great and holy an ordinance, in which God is so seldom *mocked* but it is to the *mocker's* confusion.
South's Sermons.

Heaven's fuller influence *mocks* our dazzled sight,
Too great its brightness, and too strong its light.
Prior.

Colin makes *mock* at all her piteous smart,
A lass that Cicely hight, had won his heart.
Gay.

What though no friends in sable weeds appear,
Grieve for an hour, perhaps, then mourn a year,
And bear about the *mockery* of woe
To midnight dances. *Pope's Miscellanies.*

Why should publick *mockery* in print be a better test of truth than severe railing sarcasms? *Watts.*

Grace at meals is now generally so performed, as to look more like a *mockery* upon devotion, than any solemn application of the mind unto God. *Law.*

MO'CKEL, *adj.* The same with mickle. See MICKLE. It is variously written mickle, mickel, mochil, mochel, muckle. Much; many.

The body bigg, and mightily pight,
Thoroughly rooted, and wond'rous height,
Whilom had been the king of the field,
And *mockell* mast to the husband did yield.
Spenser.

MOCWANPOOR, a district of Northern Hindostan, situated between 27° and 28° of N. lat., and bounded to the south by the districts of Bettiah and Tirhoot in Bahar. The fertile valley of this name is of no great extent, not stretching further to the eastward than six or seven miles, and terminating near Nagdeo on the Hettowrah side. It yields abundance and great variety of rice, and the cultivators enjoy considerable immunities from the Nepaul government, to which the district belongs. The ancient rajah was deposed by the Goorkhalies.

MOCWANPOOR, a town in Northern Hindostan, the capital of the district of the same name, stands in lat. 27° 28′ N., long. 85° 18′ E. The hill fort is distinguishable by the naked eye from the banks of the Kurrah, and is a place of strength. When the Nepaulese were pressed by the Chinese, the regent and some of the principal chiefs despatched a great part of their valuable property to this fort; and in 1762 Cossim Ali's general, Goorgeen Khan, made an attempt on it, but did not succeed.

MODE, *n. s.* / MO'DAL, *adj.* / MODAL'ITY, *n. s.* } Fr. *mode*, *modale*; Ital. *modo*; Lat. *modus*, *modalis*. Form; fashion; custom; manner; way; outward variety; degree; gradation; state as to outward things: modal is relating to the form or manner, as distinct from the essence of a subject or thing: modality, external or accidental difference.

My death
Changes the *mode*: for what in me was purchased,
Falls upon thee in a much fairer sort,
For thou the garland wearest successively.
Shakspeare.

When we speak of faculties of the soul, we assert not with the schools their real distinction from it, but only a *modal* diversity. *Glanville.*

The duty itself being resolved upon, the *mode* of doing it may easily be found. *Taylor's Guide.*

There are certain garbs and *modes* of speaking which vary with the times; the fashion of our clothes being not more subject to alteration than that of our speech. *Denham.*

Our Saviour beheld
A table richly spread, in regal *mode*,
With dishes piled.
Milton's Paradise Regained.

They were invited from all parts; and the favour of learning was the humour and *mode* of the age.
Temple.

The motions of the mouth by which the voice is discriminated, are the natural elements of speech; and the application of them in their several compositions, or words made of them, to signify things, or the *modalities* of things, and so to serve for communication of notions, is artificial. *Holder.*

We are to prefer the blessings of Providence before the splended curiosities of *mode* and imagination.
L'Estrange.

As we see on coins the different faces of persons, we see too their different habits and dresses, according to the *mode* that prevailed. *Addison on Medals.*

What *modes* of sight betwixt each wide extreme,
The mole's dim curtain, and the lynx's beam;
Of smell, the headlong lioness between,
And hound sagacious on the tainted green. *Pope.*

If faith itself has diff'rent dresses worn,
What wonder *modes* in wit should take their turn?
Id.

A *mode* is that which cannot subsist in and of itself, but is always esteemed as belonging to, and subsisting by, the help of some substance, which, for that reason, is called its subject. *Watts's Logic.*

Few allow *mode* to be called a being in the same perfect sense as a substance is, and some *modes* have evidently more of real entity than others.

Watts.

Though wrong the *mode*, comply; more sense is shewn
In wearing others follies than your own. *Young.*

MODE, or MOOD, in GRAMMAR. See that article.

MODE, in metaphysics, seems properly to denote the manner of a thing's existence: but Mr. Locke uses the word in a sense somewhat different from its ordinary signification. 'Such complex ideas, which, however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependencies on, or affections of substances,' he calls modes. Of these there are two sorts; First, those which are only variations, or different combinations of the same simple idea, without the mixture of any other, as a dozen or a score; which are nothing but the ideas of so many distinct units added together: these he calls simple modes. Secondly: There are others compounded of simple ideas of several kinds put together to make one complex one; v. g. beauty, consisting of a certain composition of color and figure, causing delight in the beholder: theft, which being the concealed change of the possession of any thing without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds; and these he calls mixed modes.

MODE, in music, a regular disposition of the air and accompaniments relative to certain principal sounds upon which a piece of music is formed, and which are called the essential sounds of the mode. There is this difference between the mode and the tone, that the latter only determines the principal sound, and indicates the place which is most proper to be occupied by that system which ought to constitute the bass of the air; whereas the former regulates the thirds, and modifies the whole scale agreeably to its fundamental sounds. Our modes are not, like those of the ancients, characterised by any sentiment which they tend to excite, but result from our system of harmony alone. The sounds essential to the mode are three, and form together one perfect chord. 1. The tonic or key, which is the fundamental note both of the tone and of the mode: See TONE and TONIC. 2. The dominant, which is a fifth from the tonic. 3. The mediant which properly constitutes the mode, and which is a third from the same tonic. As this third may be of two kinds, there are of consequence two different modes. When the mediant forms a greater third with the tonic the mode is major; when the third is lesser, it is minor. The major mode is immediately generated by the resonance of sounding bodies, which exhibit the third major of the fundamental sound; but the minor mode is not the product of nature; it is only found by analogy and inversion. This is equally true upon the system of Sig. Tartini as upon that of M. Rameau. This last author has explained the origin of this minor mode in different ways, of which his interpreter M. d'Alembert was satisfied with none. For this reason he has founded this origin on a different principle. See MUSIC. When the mode is once determined, every note in the scale assumes a mean expressive of its relation to the fundamental sound, and peculiar to the place which it occupies in that particular mode. We subjoin the names of all the notes significant of their relative values and places in each particular mode, taking the octave at ut as an example of the major mode, and of la as an example of the minor.

Major,	ut	re	mi	fa	sol	la	si	ut
Minor,	la	si	ut	re	mi	fa	sol	la
	Tonic.	Second Note.	Mediant.	Sub-dominant. or Fourth Note.	Dominant.	Sub-dominant. or Sixth Note.	Seventh Note.	Octave.

When the seventh note is only a semitone distant from the highest in the octave, i. e. when it forms a third major with the dominant, as si natural in the major mode, or sol sharp in the minor, that seventh sound is then called a sensible note, because it discovers the tonic and renders the tone appreciable. Nor does each gradation only assume that name which is suitable to it; but the nature of each interval is determined according to its relation to the mode. The rules established for this are as follows: 1. The second note must form a second major above the tonic, the fourth note and the dominant should form a fourth and fifth exactly true; and this equally in both modes. 2. In the major mode, the mediant or third, the sixth and the seventh from the tonic, should always be major; for by this the mode is characterised. For the same reason these three intervals ought always to be minor in the minor mode; nevertheless, as it is necessary that the sensible note should likewise there be perceived, which cannot be effectuated without a false relation whilst the sixth note still remains minor; this occasions exceptions, of which, in the course of the air or harmony, care must be taken. But it is always necessary that the cleff, with its transpositions, should preserve all the intervals, as determined with relation to the tonic according to the species of the mode. (See *Cleff*, in Rousseau's Musical Dictionary.) As all the natural chords in the octave of ut give, with relation to that tonic, all the intervals prescribed for the major mode, and as the case is the same with the octave of la for the minor mode, the preceding example may serve as a formula for the rule of the intervals in each mode. This rule has its source in the generation of harmony. If you give a perfect major chord to the tonic, to the dominant, and the sub-dominant, you will have all the sounds of the diatonic scale for the major mode; to obtain that of the minor, leaving still its third major to the dominant, give a third minor to the two other chords. Such is the analogy of the mode. There are properly only two modes; but there are twelve different sounds in

the octave which may be made fundamental sounds, and of consequence form as many keys or tones; and, as each of these tones is susceptible of the major or minor mode, music may be composed in twenty-four modes. Nay, in the manner of writing music, there are even thirty-four possible modes; but in practice ten are excluded; which, when thoroughly examined, are nothing but a repetition of the other ten, under relations much more difficult, in which all the chords must change their names, and where it must cost any one some trouble to know what he is about. Such is the major mode upon a note raised above its natural pitch by a semitone, and the minor mode upon a note depressed by a semitone. The composer does not always continue in the same mode, nor in the same key, in which he has begun an air; but, whether to alter the expression or introduce variety, modes and keys are frequently changed, according to the analogy of harmony; yet always returning to those which have been first heard; this is called modulation. Thence arises a new division of modes into such as are principal and such as are relative; the principal is that in which the piece begins and ends; the relative modes are such as the composer interweaves with the principal in the flow of the harmony. Others have proposed a third species, which they call a mixed mode, because it participates the modulation of both the others, or rather because it is composed of them; a mixture which they did not reckon an inconveniency, but rather an advantage, as it increases the variety and gives the composer a greater latitude both in air and harmony. This new mode, not being found by the analysis of the three chords, like the two former, is not determined, like them, by harmonies essential to the mode, but by an entire scale which is peculiar to itself, as well in rising as descending; so that, in the two modes above-mentioned, the scale is investigated by the chords, and in this mixed mode the chords are investigated by the scale. The following notes exhibit the form of this scale in succession, as well rising as descending; mi fa sol la si ut re mi. Of which the essential difference is, as to the melody, in the position of the two semitones; of which the first is found between the first and the second note, and the last between the fifth and sixth; and, with respect to the harmony, the difference consists in this, that upon its tonic it carries a third minor in the beginning, and major in ending, in the accompaniment of this scale, as well in rising as descending.

MOD'EL, *n. s.* & *v. a.* } Fr. *modele, modeler*;
MOD'ELLER, *n. s.* } Lat. *modulus*. Outward representation; pattern; mould; representation: to model is to shape after a pattern; mould; form: a modeller, one who plans, contrives, or shapes the outward forms of things.

A fault it would be if some king should build his mansion-house by the *model* of Solomon's palace.
Hooker.

I'll draw the form and *model* of our battle;
Limit each leader to his several charge,
And part in just proportion our small strength.
Shakspeare.

I have commended to his goodness
The *model* of our chaste loves, his young daughter.
Id.

England! *model* to thy inward greatness,
Like little body with a mighty heart. *Id.*

They cannot see sin in those means they use, with intent to reform to their *models* what they call religion. *King Charles.*

When they come to *model* heaven,
And calculate the stars, how they will wield
The mighty frame. *Milton's Paradise Lost.*

Our great *modellers* of gardens have their magazines of plants to dispose of. *Spectator.*

You have the *models* of several ancient temples, though the temples and the gods are perished.
Addison.

The government is *modelled* after the same manner with that of the Cantons, as much as so small a community can imitate those of so large an extent.
Id. on Italy.

As he who presumes steps into the throne of God, so he that despairs measures providence by his own little contracted *model*. *South.*

People seldom improve when they have no other *model* but themselves to copy after. *Goldsmith.*

MODEL is particularly used in building, for an artificial pattern made of wood, stone, plaster, or other matter, with all its parts and proportions, for the better conducting and executing some great work, and to give an idea of the effect it will have in large. In all great buildings, it is much the surest way to make a model in relievo, and not to trust to a bare design or draught. There are also models for the building of ships, &c., and for extraordinary staircases, &c. They also use models in painting and sculpture; whence, in the academies, they give the term model to a naked man, disposed in several postures, to afford an opportunity to the scholars to design him in various views and attitudes.

Models, in imitation of any natural or artificial substance, are most usually made by means of moulds composed of plaster of Paris. For the purpose of making these moulds, this kind of plaster is much more fit than any other substance, on account of the power it has of absorbing water, and soon condensing into a hard substance, even after it has been rendered so thin as to be of the consistence of cream. This happens in a shorter or longer time as the plaster is of a better or worse quality; and its good or bad properties depend very much upon its age, to which, therefore, particular regard ought to be had. It is sold in the shops at very different prices; the finest being made use of for casts, and the middling sorts for moulds. It may be very easily colored by almost any kind of powder excepting what contains an alkaline salt; for this would chemically decompose the substance of it, and render it useless. A very considerable quantity of chalk would also render it soft and useless, but lime hardens it to a great degree. The addition of common size will likewise render it much harder than if mere water is made use of. In making either moulds or models, however, the mixture must not be made too thick at first; for if this is done, and more water added to thin it, the composition must always prove brittle and of a bad quality. The particular manner of making models, or casts, as they are called, de-

pends on the form of the subject to be taken. The process is easy where the parts are elevated only in a slight degree, or where they form only a right or obtuse angle with the principal surface from which they project; but where the parts project in smaller angles, or from curves inclined towards the principal surface, the work is more difficult. This observation, however, holds good only with regard to hard and inflexible bodies; for such as are soft may often be freed from the mould, even though they have the shape last mentioned. The moulds are to be made of various degrees of thickness, according to the size of the model to be cast; and may be from half an inch to an inch, or, if very large, an inch and a half. Where a number of models are to be taken from one mould, it is necessary to have it of a stronger contexture than where only a few are required.

Models of Living Persons. Besides the models which are taken from inanimate bodies, it has been frequently attempted to take the exact resemblance of people while living, by using their face as the original of a model, whence to take a mould; and the operation, however disagreeable, has been submitted to by persons of the highest ranks in life. A considerable difficulty occurs in this, however, by reason of the person's being apt to shrink and distort his features when the liquid is poured upon him; neither is he altogether without danger of suffocation unless the operator well understands his business. To avoid the former inconvenience it will be proper to mix the plaster with warm instead of cold water, by which means the person will be under no temptation to shrink; and, to prevent any danger of a fatal accident, the following method is to be practised:—Having laid the person horizontally on his back, the head must first be raised by a pillow to the exact position in which it is naturally carried when the body is erect; then the parts to be represented must be very thinly covered over with fine oil of almonds by a painter's brush; the face is then to be first covered with fine fluid plaster, beginning at the upper part of the forehead, and spreading it over the eyes, which are to be kept closed, yet not so strongly as to cause any unnatural wrinkles. Cover then the nose and ears, plugging first up the meatus and torii with cotton, and the nostrils with a small quantity of tow rolled up, of a proper size, to exclude the plaster. During the time that the nose is thus stopped, the person is to breathe through the mouth: in this state the fluid plaster is to be brought down low enough to cover the upper lip, observing to leave the rolls of tow projecting out of the plaster. When the operation is thus far carried on, the plaster must be suffered to harden; after which the tow may be withdrawn, and the nostrils left free and open for breathing. The mouth is then to be closed in its natural position, and the plaster brought down to the extremity of the chin. Begin then to cover that part of the breast which is to be represented, and spread the plaster to the outsides of the arms and upwards in such a manner as to meet and join that which is previously laid on the face: when the whole of the mass has acquired its due hardness it is to be cautiously lifted without breaking. After the mould is constructed it must be seasoned with linseed oil, litharge, &c.; and when the mould is cast it is to be separated from the model by means of a small mallet and chisel. The eyes, which are necessarily shown closed, are to be carved, so that the eye-lids may be represented in an elevated posture; the nostrils hollowed out; and the back part of the head, from which, on account of the hair, no mould can be taken, must be finished according to the skill of the artist. The edges of the model are then to be neatly smoothed off, and the bust fixed on its pedestal.

When models are made of such large objects, that the model itself must be of considerable size, it is vain to attempt making it in the way above described. Such models must be constructed by the hand with some soft substance, as wax, clay, putty, &c.; and, it being necessary to keep all the proportions with mathematical exactness, the construction of a single model of this kind must be a work of great labor and expense, as well as of time. A beautiful model was made, in wood, of the New Town of Edinburgh, before it was begun to be built. A model was also made of a bridge over the Neva, of uncommon strength as well as elegance. But, of all the models which have been undertaken by human industry, perhaps the most remarkable is that which was constructed by general Pfiffer, to represent the mountainous parts of Switzerland. It was composed of 142 compartments, of different sizes and forms, respectively numbered, and so artfully put together that they could be separated and replaced with the greatest ease. The model itself was twenty feet and a half long, and twelve broad, and formed on a scale which represented two English miles and a quarter by an English foot; comprehending part of the cantons of Zug, Zurich, Schweitz, Underwalden, Lucerne, Berne, and a small part of the mountains of Glarus; in all, an extent of country of eighteen leagues and a half in length and twelve in breadth. The highest point of this model, from the level of the centre, which is the lake of Lucerne, was about ten inches; and as the most elevated mountain represented therein rises 1475 toises, or 9440 feet, above the lake of Lucerne, at a gross calculation, the height of an inch in the model was about 900 feet. The whole was painted of different colors, in such a manner as to represent objects as they exist in nature. So minute also was the accuracy of the plan that it comprised not only all the mountains, lakes, rivers, towns, villages, and forests, but every cottage, bridge, torrent, road, and even every path. The principal materials employed in the construction of this extraordinary model were a mixture of charcoal, lime, clay, a little pitch, with a thin coat of wax; and it was so hard that it might be trod upon without damage. It was begun in 1766, when the general was about fifty years of age, and employed him till August 1785; during all which long space of time his task was not only most laborious, but even dangerous. He raised the plans with his own hands on the spot, took the elevation of mountains, and laid them down in their several proportions. In the prosecution of this employ-

ment he was twice arrested as a spy; and, in the popular cantons, was frequently forced to work by moonlight, in order to avoid the jealousy of the peasants, who imagined that their liberty would be endangered should such a plan of their country be taken. Being often obliged to remain on the tops of some of the Alps, where no provisions could be procured, he took along with him a few milch goats. When any part was finished he sent for the people residing near the spot, and desired them to examine each mountain with accuracy, to see whether it corresponded, as far as the smallness of the scale would admit, with its natural appearance; and then, by frequently retouching, he corrected the deficiencies. Even after the model was finished he continued his Alpine expeditions with the same ardor as ever, and with a degree of vigor that would fatigue a much younger person. All his elevations were taken from the level of the lake of Lucerne: which, according to Saussure, is 1408 feet above the level of the Mediterranean.

In *painting* this is the name given to a man or woman who is procured to exhibit him or herself in a state of nudity for the advantage of the students. These models are provided in all academies and schools for painting, and it is customary for the students who have acquired a tolerable use of the pencil to be introduced to this kind of study, and urged to exertion and emulation in it. By this means the details and proportions of the human shape, the play of the muscles, the varieties of expression, &c., are displayed and inculcated far better than by any course of lectures or any study of former works. The term model is, however, at the same time extended to the great masters and to their admirable performances, and it is clear that the enlarged meaning we first applied to it fully warrants such an extension.

It is desirable that the living models used in an academy, or even in a private painting room, should be changed as frequently as possible, or the student is in danger of falling into mannerism. Millin speaks of a model, of the name of Deschamps, who did duty in this way upwards of forty years in the academy at Paris, and grows quite facetious in alluding to the facility with which this person's form and features might be recognised, in every variety of subject or of expression, in all the paintings of the students of that period.

MODENA, a duchy of Italy, extending between the Po and the Appennines, which bound it north and south; or from long. 9° 54′ to 11° 20′ E., and from lat. 44° 6′ to 44° 55′ N. It is bounded east by the states of the church, and west by Parma, and is an inland tract of country, eighty-four miles in length, with a medium breadth of twenty-five. The territory, strictly speaking, consists only of the six districts of Modena, Reggio, Mirandola, Correggio, Carpi, and Navellara; but the principality of Massa and Carrara will by law revert, on the death of its present sovereign, to the house of Modena. The extent and population of the six districts of Modena Proper is 1740 square miles, with 332,000 inhabitants; Massa and Carrara is 320 square miles, with 38,000 inhabitants. Total 2060 square miles, and 370,000 inhabitants. The chief towns are Modena, having 20,000 inhabitants; Reggio 13,300; Massa 10,000; Mirandola 8200; Navellara 4100; Correggio 3500.

The country is one gently undulating plain, rising into considerable elevations, but not mountainous, except in the southern provinces, where it is traversed by the Appennines. Its rivers are the Po, the Crostolo, the Panaro, and the Secchia, and a number of small tributary streams and rivulets. The climate is beautifully mild and clear, and the soil rich and fruitful, except in the higher districts, in corn, wine, olives, mulberry-trees, hemp, and pasturage, but the corn raised is not equal to the consumption. Cattle are reared in large numbers; bees likewise are objects of attention; but the chief article of culture and manufacture is silk. The other manufactures consist of canvas, leather, paper, and glass. The best marble of Italy is found at Carrara, and a kind of mineral oil (olio di fossa) in various subterraneous cavities; also amber and petroleum.

This duchy forms a small independent state, possessed in full sovereignty by the archduke of Este. The revenue is £140,000 sterling, and the regular troops 1500 men. The family is one of the most ancient in Europe. In 1796 the duke was expelled by the French, and soon after resigned his claims in favor of his son-in-law the archduke Ferdinand of Austria. In the treaty of Campo Formio, the Modenese possessions were incorporated with the Cisalpine republic, and the archduke received as an indemnity the Brisgall and Ortenall in Suabia. In 1814 the congress of Vienna restored to the archduke Francis of Este the territory of Modena, with the limits which it had before the peace of Campo Formio; and gave to his mother, the archduchess Maria Beatrix, the duchy of Massa and principality of Carrara, to revert, on the death of the archduchess, to her son.

MODENA, the capital of the above duchy, is situated in a delightful valley between the Panaro and Secchia. It has a citadel, and is surrounded with ramparts, which together however have little strength. The houses are well built, and the streets clean and regular. The finest is the Strada Maestra, but almost all of them are bordered with arcades. The population is about 20,000. The best public building is the ducal palace, situated in a large square. The cathedral is a mean Gothic building, only remarkable for its marble tower, said to be one of the highest in Italy. The other churches claim little attention, with the exception of those of St. Vicenzo and St. Agostino. The college is spacious and handsome; its library containing about 80,000 volumes, among which are many rare editions of the fifteenth century, and several valuable MSS. The traveller finds here better inns and baths than in most other places in Italy. The trade is not considerable. It is twenty-two miles W. N. W. of Bologna, and thirty E. S. E. of Parma.

MOD'ERATE, *adj.* & *v. a.* — Fr. *moderé*;
MOD'ERATELY, *adv.* — Ital. *moderato*;
MOD'ERATENESS, *n. s.* — Lat. *moderatus*.
MOD'ERATOR. — Temperate; so-

ber; qualified; reasonable; mild; not in an extreme: hence to regulate; restrain; pacify; qualify; repress: the *adv.* & *n. s.* corresponding: a moderator is a person who acts with a view to calm or restrain others; and particularly one who presides with this view at a disputation or discussion.

Sound sleep cometh of *moderate* eating, but pangs of the belly are with an insatiable man.
Ecclus. xxxi. 20.

With equal measure she did *moderate*
The strong extremities of their rage. *Spenser.*

Was it the purpose of these churches, which abolished all popish ceremonies, to come back again to the middle point of evenness and *moderation?*
Hooker.

There's not so much left as to furnish out
A *moderate* table. *Shakspeare. Timon of Athens.*

Sometimes the *moderator* is more troublesome than the actor. *Bacon's Essays.*

Sorrows, because they are lingering guests, I will entertain but *moderately;* knowing, that the more they are made of, the longer they will continue.
Bp. Hall.

Equally inured
By *moderation* either state to bear,
Prosperous or adverse. *Milton's Paradise Lost.*

Angling was, after tedious study, a calmer of unquiet thoughts, a *moderator* of passions, and a procurer of contentedness. *Walton.*

How does Philopolis seasonably commit the opponent with the respondent, like a long-practised *moderator?* *More.*

Each nymph but *moderately* fair,
Commands with no less rigor here. *Waller.*

More *moderate* gifts might have prolonged his date,
Too early fitted for a better state. *Dryden.*

These are tenets which the *moderatest* of the Romanists will not venture to affirm. *Smalridge.*

Ye swarthy nations of the torrid zone,
How well to you is this great bounty known!
For frequent gales from the wide ocean rise
To fan your air, and *moderate* your skies.
Blackmore.

A zeal in things pertaining to God, according to knowledge, and yet duly tempered with candour and prudence, is the true notion of that much talked of, much misunderstood virtue, *moderation.*
Atterbury.

By its astringent quality it *moderates* the relaxing quality of warm water. *Arbuthnot on Aliments.*

Blood in a healthy state, when let out, its red part should congeal strongly and soon, in a mass *moderately* tough, and swim in the serum. *Id.*

In *moderation* placing all my glory,
While tories call me whig, and whigs a tory.
Pope.

Fixed to one part, but *moderate* to the rest. *Id.*

A number of *moderate* members managed with so much art as to obtain a majority, in a thin house, for passing a vote, that the king's concessions were a ground for a future settlement. *Swift.*

The first person who speaks when the court is set, opens the case to the judge, chairman, or *moderator* of the assembly, and gives his own reasons for his opinion. *Watts.*

Whilst shame keeps its watch, virtue is not wholly extinguished from the heart, nor will *moderation* be utterly exiled from the minds of tyrants. *Burke.*

MOD'ERN, *adj.* & *n. s.* MOD'ERNISE, *v. a.* MOD'ERNISM, *n. s.* MOD'ERNNESS, *n. s.* } Fr. *moderne;* Ital. Span. and Port. *moderno;* barb. Lat. *modernus,* either a corruption of hodiernus, 'vel potius ab adverbio *modò,* modernus, ut *à die* diurnus.' Late; recent; arising in late time: Shakspeare uses it for vulgar, common: as a substantive it is chiefly used in the plural, for those who live or have lived in recent times: to modernise is to adapt something ancient to modern form or usage: a modernism is something unduly modern or unclassical, being itself 'a modernism' of Swift's: modernness, lateness; novelty.

Trifles, such as we present *modern* friends withal.
Shakspeare.

The justice,
With eyes severe and beard of formal cut,
Full of wise saws and *modern* instances. *Id.*

Some of the ancient, and likewise divers of the *modern* writers, that have laboured in natural magic, have noted a sympathy between the sun and certain herbs. *Bacon.*

There are *moderns* who, with a slight variation, adopt the opinion of Plato. *Boyle on Colours.*

The glorious parallels then downward bring
To *modern* wonders, and to Britain's king.
Prior.

Some by old words to fame have made pretence;
Antients in phrase, mere *moderns* in their sense!
Pope.

Scribblers send us over their trash in prose and verse, with abominable curtailings and quaint *modernisms.* *Swift.*

In this part of our work, where caprice has long wantoned without control, and vanity sought praise by petty reformation, I have endeavoured to proceed with a scholar's reverence for antiquity. I have attempted a few alterations, and among these perhaps the greatest part is from the *modern* to the ancient practice. *Dr. Johnson's Preface to Dictionary.*

MOD'EST, *adj.* MOD'ESTLY, *adv.* MOD'ESTY, *n. s.* MODESTY-PIECE. } Fr. *modeste;* Ital. Span. and Port. *modesto;* Lat. *modestus,* from *modus.* Strictly; in the perfect mode or right manner: chaste; becoming; moderate; not forward, impudent, or presuming: modesty is opposed, therefore, both to arrogance and looseness, or licentiousness of behaviour: modesty-piece is defined in the extract.

They cannot with *modesty* think to have found out absolutely the best which the wit of man may devise. *Hooker.*

Resolve me with all *modest* haste, which way
Thou mightest deserve, or they impose this usage.
Shakspeare.

Mrs. Ford, the honest woman, the *modest* wife; the virtuous creature, that hath the jealous fool to her husband. *Id.*

Bid the cheek be ready with a blush
Modest as morning, when she coldly eyes
The youthful Phœbus.
Id. Troilus and Cressida.

A lord will hear you play;
But I am doubtful of your *modesties,*
Lest over-eying of his odd behaviour,
You break into some merry passion.
Shakspeare.

True piety is *modest,* and stands not upon terms of reputation, in the business of God. *Bp. Hall.*

Poverty is like a girdle about our loins, it binds hard, but it is *modest* and useful. *Jer. Taylor.*

Her face, as in a nymph, displayed
A fair fierce boy, or in a boy betrayed
The blushing beauties of a *modest* maid.
Dryden.

During the last four years, by a *modest* computation, there have been brought into Brest above six millions sterling in bullion. *Addison.*

A narrow lace which runs along the upper part of the stays before, being a part of the tucker, is called the *modesty-piece.* *Id.*

Tho' learned, well-bred; and tho' well-bred, sincere,
Modestly bold, and humanly severe. *Pope.*

First he *modestly* conjectures,
His pupil might be tired with lectures:
Which helped to mortify his pride,
Yet gave him not the heart to chide. *Swift.*

Of boasting more than of a tomb afraid;
A soldier should be *modest* as a maid. *Young.*

Talk not to a lady in a way that *modesty* will not permit her to answer. *Clarissa.*

MODICA, a district and town of southern Sicily, in the Val di Noto: the district, about thirty miles in length and ten in breadth, contains five other good towns, and about 80,000 inhabitants. It has an independent court of justice. The town is situated on the river Scieli, and surrounded by some of the most imposing scenery of this beautiful island; where the fruits of almost all climates mingle, and the corn, wine, and oil are abundant. Its manufactures are chiefly domestic, and the inhabitants are largely connected with agriculture. They are said to amount to upwards of 20,000. It is thirty miles W. S. W. of Syncum, and forty-five S. S. W. of Catania.

MOD'ICUM. Lat. *modicum.* A small portion or pittance.

What *modicums* of wit he utters; his evasions have ears thus long. *Shakspeare. Troilus and Cressida.*

Though hard their fate,
A cruise of water, and an ear of corn,
Yet still they grudged that *modicum.* *Dryden.*

Though nature weigh our talents, and dispense
To every man his *modicum* of sense,
And conversation in its better part
May be esteemed a gift, and not an art,
Yet much depends, as in the tiller's toil,
On culture and the sowing of the soil. *Cowper.*

MOD'IFY, *v. a.* & *v. n.* Fr. *modifier*, of Lat. *modo* and *facere.* MODIFI'ABLE, or MODIF'ICABLE, *adj.* MODIFICA'TION, *n. s.* To change the mode, external shape, or qualities of a thing: hence to soften; to moderate; and, as a neuter verb, to extenuate: the adjective and noun substantive follow these significations.

Yet there is that property in all letters, of aptness to be conjoined in syllables and words through the voluble motions of the organs, that they *modify* and discriminate the voice without appearing to discontinue it. *Holder.*

The chief of all signs is human voice, and the several *modifications* thereof by the organs of speech, the letters of the alphabet, formed by the motions of the mouth. *Id.*

Of his grace
He modifies his first severe decree,
The keener edge of battle to rebate. *Dryden.*

After all this descanting and *modifying* upon the matter, there is hazard on the yielding side. *L'Estrange.*

It appears to be more difficult to conceive a distinct, visible image in the uniform, invariable essence of God, than in variously *modifiable* matter; but the manner how I see either still escapes my comprehension. *Locke.*

The middle parts of the broad beam of white light which fell upon the paper, did, without any confine of shadow to *modify* it, become coloured all over with one uniform colour, the color being always the same in the middle of the paper as at the edges. *Newton.*

If these powers of cogitation, volition and sensation, are neither inherent in a matter as such, nor acquirable to matter by any motion and *modification* of it, it necessarily follows that they proceed from some cogitative substance, some incorporeal inhabitant within us, which we call spirit. *Bentley.*

As the generality of meat-roasting, with its several *modifications*, as to beef, mutton, pullets, &c., does not inhere in any one part of the jack; so neither does consciousness, with its several modes of sensation, intellection, volition, &c., inhere in any one, but is the result from the mechanical composition of the whole animal. *Pope.*

MODIL'LON. Fr. *modillon;* Lat. *modiolus.* A kind of bracket.

The *modillons* or dentelli make a noble shew by their graceful projections. *Spectator.*

Modillons, in architecture, are little brackets which are often set under the corinthian and composite orders, and serve to support the projecture of the larmier or drip: this part must be distinguished from the great model, which is the diameter of the pillar; for, as the proportion of an edifice in general depends on the diameter of the pillar, so the size and number of the *modillons*, as also the interval between them, ought to have due relation to the whole fabrick. *Harris.*

MO'DISH, *adj.* MO'DISHLY, *adv.* MO'DISHNESS, *n. s.* Fr. *mode.* See MODE. According to mode, fashion, or custom: modishness is used for an affectation of the fashion.

But you, perhaps, expect a *modish* feast,
With amorous songs, and wanton dances graced. *Dryden.*

Young children should not be much perplexed about putting off their hats, and making legs *modishly.* *Locke.*

Hypocrisy, at the fashionable end of the town, is very different from hypocrisy in the city; the *modish* hypocrite endeavours to appear more vitious than he really is, the other kind of hypocrite more virtuous. *Addison's Spectator.*

MODREVIUS (Andrew Frichius), secretary to Sigismund Augustus king of Poland, who acquired considerable reputation by his learning and works. He left the Romish church, favoring the Lutherans and Antitrinitarians, and took great pains to unite all Christian societies under the same communion. Grotius has placed him among the reconcilers of the different schemes of religion. His principal work is entitled De Republicâ Emendendâ; printed in 1554.

MOD'ULATE, *v. a.* MODULA'TION, *n. s.* MOD'ULATOR. Lat. *modulor.* To form sounds to a given key, or into concord: modulation is the act of doing this, or the harmony affected; a modulator he who modulates.

The nose, lips, teeth, palate, jaw, tongue, weasand, lungs, muscles of the chest, diaphragm, and muscles of the body, all serve to make or modulate the sound. *Grew's Cosmologia.*

The speech, as it is a sound resulting from the *modulation* of the air, has most affinity to the spirit, but, as it is uttered by the tongue, has immediate cognation with the body, and so is the fittest instrument

to manage a commerce between the invisible powers and human souls cloathed in flesh.

Government of the Tongue.

The number of the simple original minerals has not been rightly fixed: the matter of two or more kinds being mixed together, and, by the different proportion and *modulation* of that matter variously diversified, have been reputed all different kinds.

Woodward.

The tongue is the grand instrument of taste, the faithful judge of all our nourishment, the artful *modulator* of our voice, and the necessary servant of mastication. *Derham.*

Could any person so *modulate* her voice as to deceive so many? *Broome*

Innumerous songsters in the freshening shade,
Their *modulations* mix, mellifluous.

Thomson's Seasons.

Echo propagates around
Each charm of *modulated* sound. *Anon.*

MODULATION, in reading. See READING.

MODULATION, in music, is susceptible of several different significations. It frequently means no more than an air, or a number of musical sounds properly connected and arranged. Thus it answers to what Mr. Malcolm understands by the word tune when he does not expressly treat concerning the tuning of instruments. Thus likewise it expresses the French word chant; for which reason, in music, the one word is often expressed by the other. But the precise and technical acceptation to which it ought to be confined is the art of composing melody or harmony agreeably to the laws prescribed by any particular key, that of changing the key, or of regularly and legitimately passing from one key to another.

Modulation, says Rousseau, is properly the manner of ascertaining and managing the modes; but at this time the word most frequently signifies the art of conducting the harmony and the air successively through several modes, in a manner agreeable to the ear, and conformed to rules. If the different modes be produced by harmony, thence likewise must spring the laws of modulation. These are simple in conception, but difficult in practice. To modulate properly in the same tone it is necessary, 1. To run through all the sounds of it in an agreeable air, frequently repeating the sounds most essential to it, and dwelling upon these with the most remarkable emphasis; that is to say, that the chord containing the sensible notes, and that of the tonic, should frequently be heard in it, but under different appearances, and obtained by different procedures to prevent monotony. 2. That reposes or cadences should only be established upon these two chords: the greatest liberty, however, which ought to be taken with this rule is, that a cadence or repose may be established on the chord of the subdominant. 3. In short that none of the sounds of the mode ought ever to be altered; for without quitting it we cannot introduce a sharp or a flat which does not belong to it, nor abstract any one which in reality does belong to it. But, passing from one mode to another, we must consult analogy, we must consider the relations which a key bears to the other notes in the series, and to the number of sounds common to both the modes, that from which we pass, and that into which we enter. If we pass from a mode major, whether we consider the fifth from the key as having the most simple relation with it except that of the octave, or whether we consider it as the first sound which enters into the harmonics of the same key, we shall always find that this fifth, which is the dominant of the mode, is the chord upon which we may establish the modulation most analogous to that of the principal key. This dominant, which constituted one of the harmonics of the first key, makes also one of its own peculiar key, of which it is the fundamental sound. There is then a connexion between these two chords. Besides, that same dominant carrying, as well as the tonic, a perfect chord major upon the principle of resonance, these two chords are only different one from the other by the dissonance, which, passing from the key to the dominant, is the sixth superadded, and when reascending from the dominant to the key is the seventh. Now these two chords, thus distinguished by the dissonance which is suitable to each, by the sounds which compose them when arranged in order, form precisely the octave, or the diatonic scale, which we call a gammut, which determines the mode. This series of the key, altered only by a sharp, forms the scale belonging to the mode of the dominant; which shows how striking the analogy is between these two tones, and gives the easiest opportunity of passing from one to the other by means of one single alteration alone. The mode then of the dominant is the first which presents itself after that of the key in the order of modulations. The same simplicity of relations which we find between a tonic and its dominant is likewise found between the same tonic and its subdominant: for that fifth, in ascending, which is formed by the dominant with the tonic, is likewise formed by the sub-dominant in descending: but that subdominant does not form a fifth with the tonic, except by inversion; it is directly a fourth if we take that tonic below, as it ought to be; and which fixes the degree of their relations: for in this sense the fourth, whose ratio is as 3 to 4, immediately follows the fifth, whose ratio is as 2 to 3. So that, if that subdominant does not enter into the chord of the tonic, in return the tonic enters into its perfect chord. For let *ut mi sol* be the chord of the tonic, that of the sub-dominant shall be *fa la ut*: thus it is the *ut* which here forms the connexion, and the two other sounds of this new chord, are exactly the two dissonances of the preceding. Besides we need not alter more sounds for this new mode than for that of the dominant; they are both in the one and the other quite the same chords of the principal mode, except one. Add a flat to the sensible note *si* or B, and all the notes in the mode of *ut* or C will serve for that of *fa* or F. The mode of the sub-dominant then is scarcely less analogous to the principal mode than that of the dominant. After having made use of the first modulation in order to pass from a principal mode *ut* or C, to that of the dominant *sol* or G, we are obliged to make use of the second to return to the principal mode: for, if *sol* or G be the dominant in the mode of *ut* or C, *ut* is the subdominant in the mode of *sol*:

thus one of these modulations is no less necessary than the other. The third sound which enters into the chord of the tonic is that of the third formed by its mediant; and after the preceding it is likewise the most simple of relations, $\frac{3}{2}$. Here then is a new modulation which presents itself, and which is so much the more analogous, because two of the sounds of the principal tonic enter likewise into the minor chord of its mediant: for, the former chord being *ut mi sol*, the latter must be *mi sol si*, where it may be perceived that *mi* and *sol* are common. But what renders this modulation a little more remote is the number of sounds which are necessary to be altered, even for the minor mode, which is most suitable to this *mi*.

Rousseau, in his Musical Dictionary, has given the formula of a scale both for the major and minor; now, by applying this formula to the minor mode, we find nothing in reality but the fourth sound *fa* heightened by a sharp in ascending; but in rising we find two others which are altered, viz. the principal tonic *ut*, and its second *re*, which here becomes a sensible note: it is certain that the alteration of so many sounds, and particularly of the tonic, must remove the mode and weaken the analogy. If we should invert the third as we have inverted the fifth, and take that third below the tonic on the sixth note *la* which ought here to be called a sub-mediant, or the mediant below, we shall form upon this note *la* a modulation more analogous to the principal tone than that of *mi*; for, as the perfect chord of this sub-mediant is *la ut mi*, there once more we find, as in that of the mediant, two of the sounds which enter into the chord of the tonic, viz. *ut* and *mi*: and moreover, since the scale of this new key is composed, at least in descending, of the same sounds with that of the principal key; and since it has only two sounds altered in ascending, i. e. one fewer than the series of the mediant, it follows that the modulation of this sixth note is preferable to that of the mediant; and by so much the more that there the principal tonic forms one of the sounds essential to the mode; which is more proper for approximating the idea of the modulation. The *mi* may afterwards follow. Here then are four sounds, *mi fa sol la*, upon each of which we may modulate in passing from the major mode of *ut*. *Re* and *si* remain, which are the two harmonics of the dominant. This last, as being a sensible note, cannot become a tonic by any proper modulation, at least it cannot immediately become one: this would be an abrupt application of ideas too much opposed to the same sounds, and would likewise be to give it a harmony too remote from the principal sound. As to the second note, *re*, we may likewise, by favor of a consonant procedure in the fundamental base, modulate upon it in a third minor; but this must only be continued for an instant, that the audience may not have time to forget the modulation of *ut*, which is itself altered in that place; otherwise, instead of returning immediately to *ut*, we must pass through intermediate modes, where we must run great hazard of deviation. By following the same analogies we may modulate in the following order, to make our exit from a minor mode: first upon the mediant, afterwards the dominant, next the sub-dominant, then the sub-mediant, or sixth note. The mode of each of these accessory keys is determined by its mediant taken from the principal sound. For instance, issuing from the major mode of *ut* to modulate upon its mediant, we render the mode of that mediant minor; because *sol*, the dominant of the principal sound, forms a third minor with that mediant, which is *mi*. On the contrary, in our egress from the minor mode of *la*, we modulate upon its mediant *ut* in the major mode; because *mi*, the dominant of the tone whence we issue, forms a third major with the key of that into which we enter, &c. These rules, comprehended in one general formula, import, that the modes of the dominant and of the sub-dominant are like that of the tonic, and that the mediant and the sixth note require a mode opposed. We must, however, remark, that by the right which we have of passing from the major to the minor, and vice versâ, upon the same key, we may likewise change the order of modes from one key to another: but, whilst we thus remove from the natural modulation, we must presently think of our return; for it is a general rule that every piece of music ought to terminate in that key with which it began. In his Musical Dictionary, plate B, figs. 6 and 7, Rousseau has collected, in two examples, which are very short, all the modes to which we may immediately pass; the first in passing from the major mode, and the second from the minor. Each note indicates a particular modulation; and the value of the notes in each example likewise shows the relative duration suitable to each of these modes, according to its relation with the principal mode. These immediate transitions from one mode to another furnish us with the means of passing by the same rules to modes still more remote, and from thence to return to the principal mode, of which we should never lose sight. But it is not sufficient to know what course we ought to pursue; we must likewise be acquainted with the method of entering into it. A summary, therefore, of the precepts given in this department shall immediately follow. In melody, to discover and introduce the modulation which we have chosen, nothing is necessary but to render perceptible the alterations which it causes in the sounds of that mode whence we issue, to make them proper for the mode into which we enter. Are we now in the major mode of *ut*? there needs no more than to sound the note *fa* sharp that we may discover the mode of the dominant; or a *si* flat, that we may show the mode of the sub-dominant. Afterwards we may run over the sounds essential to the mode in which we enter; if it be well chosen our modulation will always be just. In harmony the difficulty is a little increased; for, as it is necessary that the change of modes should be made at the same time through all the parts, care must be taken of the harmony, and of the air, that we may avoid pursuing different modulations at the same time. Huygens remarks, that the prohibition of two fifths in immediate succession proceeds upon this rule as its principal: in reality between two parts it is scarcely possible to form

a number of just fifths in uninterrupted succession without operating in two different modes. All the possible modes of passing from one mode to another are reducible to five with respect to the major mode, and to four with respect to the minor; which, in the Musical Dictionary, plate B fig. 8, will be found implied in a fundamental basis intended for each modulation. If there be any other modulation which cannot be resolved into some one of these nine, unless that modulation be enharmonic, it must infallibly be illegitimate. See MUSIC.

MOD'ULE, *n. s.* Lat. *modulus*. A model. The word is redundant in our language.

My heart hath one poor string to stay it by,
Which holds but till thy news be uttered;
And then, all this thou see'st, is but a clod
And *module* of confounded royalty. *Shakspeare.*

MO'DUS, *n. s.* Lat. *modus*. Strictly a mode; but used particularly for the compensation or mode by which tithes, or an equivalent for them, are paid.

One terrible circumstance of this bill, is turning the tithe of flax and hemp into what the lawyers call a *modus*, or a certain sum in lieu of a tenth part of the product. *Swift.*

MOE, *adj.* Sax. ma. See Mo. More; a greater number.

The chronicles of England mention no *moe* than only six kings bearing the name of Edward since the conquest, therefore it cannot be there should be more. *Hooker.*

MOEHSEN (John Charles William), M. D., was born at Berlin in 1722, and studied at the universities of Jena and Halle. Taking the degree of M. D. at the age of twenty, he returned to Berlin, and succeeded his grandfather, M. Horch, as physician to the gymnasium of Joachim. In 1778 he was appointed physician to Frederick the Great, whom he attended in the war of the Bavarian succession. He now became a member of various learned institutions, and in 1795 was chosen an associate of the royal academy of arts and sciences at Berlin. His death took place in the same year. His works relate to the history of medicine and its professors, including De Medicis Equestria Dignitate ornatis, 1768, 4to.; A Catalogue of a Collection of Engraved Portraits of celebrated Physicians, 1771, 4to.; A Description of Medals or Jettons struck in honor of Physicians, with Memoirs explaining the Coinage of the Ancients, as connected with Medical History and Literature, 1773, 2 vols. 4to.; and Remarkable Experiments to Determine the Utility of Inoculation for the Small-Pox, 1782, 8vo.

MŒRIS, a king of Egypt, the last of 300, who are said to have reigned between Menes and Sesostris. He ordered the lake to be dug which bears his name, and reigned sixty-eight years.

MŒRIS, a celebrated artificial lake of Egypt, said to have been 220 miles in circumference, intended as a reservoir for the waters of the Nile during its extraordinary overflowings. There were two pyramids in it, one half of which lay under water.—*Herodot.* lib. ii. c. 12.

MOGADOR, or MOGODOR, so named from Sidi Mogodol, an Arab saint, called also Suerah, a town of Morocco entirely built since 1760, has a handsome appearance from the sea, the houses being of stone. Like those of all Mahometan towns, however, the streets are very narrow, and standing on a desert spot of sand nearly surrounded by the sea; the town has no water but what is brought from half a mile distance: for its vegetables it is obliged to send from four to twelve miles. There are, indeed, two towns here; one, which may more properly be called the citadel, containing the custom-house, treasury, the residence of the Alkaid, and the houses of the foreign merchants; and an outer town lately inhabited by the Jews who are not foreign merchants: but this part of Mogador is also walled and fortified. The houses of the foreign merchants are spacious, having from eight to twelve rooms on a floor, opening into a gallery which surrounds the house inside, and encloses an interior space, generally used as a warehouse. The roofs are flat and serve as a walk in the evening, far preferable to those on the ground, which present nothing but barren sands drifting before the wind. The port is within a little island a mile in circuit, and a quarter of a mile from the main; it can only receive small vessels: several good batteries defend its entrance. It is the emporium of the foreign, and indeed of the entire trade of Morocco, and has 10,000 inhabitants.

The exports in 1804 were,

	lbs.	
Almonds	600,000	chiefly to Holland.
Gum arabic	300,000	Holland and England.
—— senega	100,000	England.
—— sandarach	30,000	England and Holland.
Bees' wax	200,000	Leghorn, Marseilles, Cadiz and Lisbon.
Olive oil	60,000	Holland and Lisbon.
Cow and calf skins	120,000	London, Leghorn, and Marseilles.
Wool	100,000	Holland and Marseilles.
Ostrich feathers	500	London.
Elephants' teeth	800	Holland.
Pomegranate peels	50,000	Ditto.
Dates	25,000	London and Lisbon.
Anniseed	6000	Holland.
Gingence and fennel seed	2500	Ditto.
Tallow	1500	Teneriffe.
	dozens.	
Goat skins	130,000	England.

Besides gold-dust, mats, carpets, mules, and minor articles; total value £128,000.

The imports in the same year (including £25,000 in Spanish dollars) amounted to £150,000 in ship timber, arms, ammunition, woollens, linens, cottons, lead, bar iron, hardware, tea, sugar, spices, trinkets, &c. The ports with which Mogador principally trades are London, Amsterdam, Leghorn, Lisbon, Cadiz, and Teneriffe. The population is estimated by Mr. Jackson at 10,000. Long 9° 20′ W., lat. 31° 50′ N.

MOGULS, a celebrated nation of Asia, whose conquests were formerly most rapid and extensive. They deduce, we are told, their origin from Japhet, or, as they call him, Japhis, the son of Noah. His son Turk, they say, was the first king, or khan, of those nations afterwards known by the separate names of Turks, Tartars, and Moguls; and the Tartars, especially, assert that their proper designation is Turks. To this prince is attributed many of those inventions which barbarous nations commonly ascribe to their first sovereigns. He was succeeded by Taunak; in whose reign the whole posterity of Turk were divided into four large tribes, called the ordas of Erlat, Gialiar, Kaugin, Berlas or Perlas; of which last came the famous Timur Beg, or Tamerlane. From this time to that of Alanza khan we meet with nothing remarkable. In his reign the Turks, being immersed in all kinds of luxury, universally apostatised into idolatry. Having two sons, Tartar and Mogul, he divided his dominions among them, and thus gave rise to the two empires of the Tartars and Moguls.

The two nations had not long existed before they began to make war upon each other; and, after long contention, Il Khan, emperor of the Moguls, was totally overthrown by Siuntz Khan, emperor of the Tartars; and so great was the defeat that the Mogul nation was almost exterminated. Only two of Il Khan's family survived. These were Kajan his youngest son, and Nagos his nephew, who were both of an age, and had both been married the same year. These two princes, with their wives, had been taken prisoners by Siuntz Khan, but made their escape to their own country. Here they seized upon all the cattle which had not been carried off by the Tartars; then, stripping some of the slain, they took their clothes, and retired into the mountains. They passed several mountains without much difficulty; but at last advanced to the foot of one exceedingly high, which had no way over it but a very small path made by certain animals, called in the Tartar language archara. This path they made use of, though it was so strait that only one could pass at a time, and he was in the most imminent danger of breaking his neck at the least false step. Having ascended the mountain on one side by this path, they descended by the same on the other side; and were agreeably surprised to find themselves in a most delightful tract, interspersed with rivulets and meadows, abounding with a vast variety of fruits, and enclosed on all sides by inaccessible mountains, so as to shelter them from all future pursuits of the Tartars. Here they lived some time, and gave this beautiful country the name of Irgana-kon, from its situation; Irgana, signifying in the old language of the Moguls, a valley, and Kon, a steep height. In process of time these two families very much increased. Kajan, whose posterity was the most numerous, called his descendants Kajath but the people springing from Nagos were divided into two tribes; Nagoster and Durlagan. These two Mogul princes and their descendants lived in this place for more than 400 years; but the latter then finding it too narrow for them, meditated a return to the country whence their ancestors had been expelled. For some time however they found this impracticable, as the path that conducted their ancestors had long been destroyed. At last they discovered that one part of the high mountain above mentioned was not very thick in a certain place; and that it consisted of iron ore. To this, having first set fire to a layer of wood and another of charcoal, laid along the foot of the mountain, they applied seventy large bellows, and at last melted the mountain in such a manner that an opening was made, large enough for a loaded camel to pass; and through this passage they all marched out.

The Moguls, having thus issued as it were from a new world, overthrew the Tartars in their turn; and continued to be a very considerable nation, till the time of their great hero Temujin, afterwards called Jenghiz Khan, whom they extol in the most extravagant manner. It is difficult, however, to say how far their dominions extended at this time. It seems certain that great part of the vast region now called Tartary was then in a state of considerable civilisation, and extremely populous, as mention is made of many cities which the Moguls destroyed; and the incredible multitudes whom they slaughtered show the populousness of the country. On the east the country of the Moguls and Tartars had the great desert which divides Tartary from China; on the west it had the empire of Karazm, founded by Mahmud Gazni; and on the south were the countries now named Hindostan, Siam, Pegu, Tonquin, and Cochin-China. Thus it comprehended the east part of modern Tartary, and all Siberia. The whole region was divided among a great number of Aymacks, or tribes; who had each one or more khans, according as it was more or less numerous, or divided into branches. Among these, that of the Karaites was the most powerful; their prince assumed the title of grand Khan, and the Moguls were tributary to him; but, according to the Chinese historians, both were tributary to the emperor of Kitay or Katay. China was divided into two parts: the nine southern provinces were then in the hands of the Chinese emperors of the Song dynasty, who kept their court at Hang-chew, the capital of the proaince of Che-kyang (see CHINA); the five north provinces, excepting part of Shensi, were possessed by the Kin, a people of Eastern Tartary, from whom are descended the Manchew Tartars, at present masters of China. This vast dominion was named Kitay, and was divided into two parts: that which belonged to China was properly called Kitay; and the part which belonged to Tartary Karakitay, in which some include the territories of the Moguls, Karaites, and other tribes, which are the subject of the present article. The west part of the empire of Kitay was possessed by a Turkish prince, who had lately founded a new kingdom there, called Hya; whose capital was Hya-chew, now Ninghya in Shensi, whence the kingdom took its name. On the west of Hya lay Tangut; a country of great extent, and formerly very powerful; but reduced to a low state, and divided among many princes; some of whom were subject to the emperor of Haya, and others to the emperor of China. All Tartary to the west as far as the Caspian Sea,

with the greater part of Little Bukharia, which then passed under the general name of Turkeston, was subject to Ghurkhan, Khurkhan, or Kavar Khan; to whom even the Gazni monarchs were tributary. This Ghurkhan had been prince of the west Kitan or Lyau; who, driven out of Kitay by the king, settled in little Bukharia, and the country to the north, where they founded a powerful state, about A. D. 1124. Thus the Moguls, properly so called, had but a very small extent of empire which could be called their own, if indeed they had any, when Temujin made his appearance. This hero is said by the Tartars to have been of divine origin, as his family could be traced no farther back than ten generations, the mother of whom became pregnant by a spirit. The names and transactions of his predecessors are equally uncertain and unimportant; but he himself was born in 1163, and is said to have come into the world with congealed blood in his hands; whence it was prognosticated that he would be a great warrior, and obtain the victory over all his enemies. This prediction, if any such there was, Temujin most literally fulfilled.

At the time of his father's decease, his subjects amounted to between 30,000 and 40,000 families; but of these two-thirds quickly deserted, and Temujin was left almost without subjects. When only thirteen years of age, he fought a bloody battle against these revolters: but either was defeated, or gained an indecisive victory; so that he remained in obscurity for twenty-seven years longer. His good fortune at last he owed to the friendship of Vang Khan, who ruled over a great number of Tartar tribes north of Kitay, and was named Prester John among the Europeans. This prince took Temujin under his protection; and, a rebellion being afterwards raised against himself, Temujin was made his general, and the khan was kept in possession of his throne; soon after which, Temujin subdued the tribes which had revolted from himself, and treated them with the utmost barbarity. This happened in 1201; but Vang Khan, instead of continuing the friend of Temujin, now became jealous, and resolved to destroy him by treachery. With this view he proposed a marriage between Temujin's son Juji and his own daughter, and another between Temujin's daughter and his own son. Temujin was invited by the Vang Khan to celebrate this double marriage; but, receiving intelligence of his intention, he excused himself to Vang Khan's messengers, and desired that the ceremony might be put off to some other time. A few days after the departure of these messengers, Badu and Kishlik, two brothers, who kept the horses of one of Vang Khan's chief domestics, came and informed Temujin that the grand khan, finding he had missed his aim, was resolved to set out instantly, and surprise him next morning, before he could suspect any danger. Temujin, on this, quitted his camp in the night, and retired with all his people to some distance. He was scarcely gone when Vang Khan's troops arrived, and discharged an incredible number of arrows among the empty tents; but finding nobody there, they pursued Temujin in such haste that they fell into great disorder. In this condition they were suddenly attacked and routed by Temujin; after which an open war with Vang Khan took place. By this quarrel almost all the princes of Tartary were put in motion, some siding with Temujin, and others with Vang Khan. But at last Vang Khan was overthrown in a battle, where he lost 40,000 men; and was obliged to fly for refuge to a prince named Tayyan Khan, who was Temujin's father-in-law, and by whom he was ungenerously put to death. Temujin immediately began to sieze on his dominions, great part of which voluntarily submitted; but a confederacy was formed against him by a number of Vang Khan's tributaries, at the head of whom was Jamuka, a prince who had already distinguished himself by his enmity to Temujin; and even Tayyan Khan himself was drawn into the plot, through jealousy of his son-in-law's good fortune. But Temujin was well prepared; and in 1204 attacked Tayyan Khan, routed his army, killed himself, and took Jemuka prisoner, whose head he caused instantly to be struck off; after which he marched against the other tribes who had conspired against him. Them he quickly reduced; took a city called Kashim, where he put all to the sword who had borne arms against him; and reduced all the Mogul tribes in 1205. Temujin now, having none to oppose him, called a general diet, to be held on the first day of spring 1206. To this diet were summoned all the great lords, both Moguls and Tartars; and, in the mean time, to establish good order in the army, he divided his soldiers into bodies of 10,000, 1000, 100, and ten men, with their respective officers, all subordinate to the generals, or those who commanded the bodies of 10,000; and these were to act under his own sons. On the day of holding the diet, the princes of the blood and great lords appeared dressed in white. Temujin, dressed in the same manner, with his crown on his head, sat down on his throne, and was complimented by the whole assembly; who confirmed the Mogul empire to him and his successors, adding all those kingdoms which he had subdued, the descendants of whose vanquished khans were deprived of all right or title to them; after which he was proclaimed emperor with much ceremony. During this inauguration, a pretended prophet declared that he came from God to tell the assembly that thenceforth Temujin should assume the name of Jenghiz Khan, or the most great Khan of khans; prophecying also that all his posterity should be khans from generation to generation. This prophecy, which was no doubt a trick of Temujin's, had a surprising effect on his subjects. Jenghiz Khan, having now reduced under his subjection all the wandering tribes of Moguls and Tartars, began to think of reducing those countries to the south and south-west of his own, where the inhabitants were much more civilised that his own subjects, and the countries full of fortified cities. He began with the emperor of Hya, whose dominions he invaded in 1209, who at last submitted to become his tributary. But in the mean time Jenghiz Khan himself was supposed to be tributary to the emperor of Kitay; who, in 1210, sent him an officer, demanding the customary tribute.

This was refused with the utmost indignation, and a war commenced, which only ended with the dissolution of the empire of Kitay. In 1216 Jenghiz Khan resolved to carry his arms westward, and therefore left his general Muchuli to pursue his conquests in Kitay. In his journey westward he overthrew an army of 300,000 Tartars, who had revolted against him; and, in 1218, sent ambassadors, desiring an alliance with Mohammed Karazm Shah, emperor of Gazna. His ambassador was haughtily treated; however, the alliance was concluded, but soon after broken through the treachery of the Gaznian monarch's subjects. This brought on a war attended with the most dreadful devastations, and which ended with the entire destruction of the empire of Karazm or Gazna, as related under the article Gazna. After the reduction of Karazm, part of the Moguls broke into Iran or Persia, where also they made large conquests, while others of their armies invaded Georgia and the countries to the west; all this time committing such enormities that the Chinese historians say both men and spirits burst with indignation. In 1225 Jenghiz Khan returned to Hya, where he made war on the emperor for having sheltered some of his enemies. The event was, that the emperor was slain, and his kingdom conquered, or rather destroyed; which, however, was the last exploit of this most cruel conqueror, who died in 1227, as he marched to complete the destruction of the Chinese.

At the death of Jenghiz Khan the Mogul empire extended over a prodigious tract of country; being more than 1800 leagues in length from east to west, and upwards of 1000 in breadth from north to south. Its princes, however, were still insatiable, and pushed on their conquests on all sides. Otkay was acknowledged emperor after Jenghiz Khan; and had under his immediate government Mogulestan (the country of the Moguls properly so called), Kitay, and the countries eastward to the Tartarian Sea. Jagatay his brother governed under him a great part of the western conquests. The country of the Kipjacks, and others on the east, and north-east, north, and north-west were governed by Batu or Patu the son of Juji, who had been killed in the wars; while Tuli or Toley, another son of Jenghiz Khan, had Khorassan, Persia, and what part of India was conquered. On the east side the Mogul arms were still attended with success; not only the empire of Kitay, but the southern part of China was conquered. On the west side matters continued much in the same way till 1254, when Magu, or Menko, the fourth khan of the Moguls, who was afterwards killed at a siege in China, raised a great army, which he gave to his brother Hulaku, to extend his dominions westward. In 1255 he entered Iran, where he suppressed the Ismaelians or Assassins (see Assassins); and two years afterwards he advanced to Bagdad, which he took, and cruelly put the khalif to death, treating the city with no more lenity than the Moguls usually treated those which fell into their hands. Every thing was put to fire and sword; and in the city and its neighbourhood the number of slain, it is said, amounted to 1,600,000. The next year he invaded Syria; the city of Damascus was delivered up, and, as it made no resistance, the inhabitants were spared; but Aleppo being taken by storm, a greater slaughter ensued there than had taken place at Bagdad, not even the children in their cradles being spared. Some cities of this country revolted in a year or two after; but falling again into the hands of the Moguls, they were plundered, and the inhabitants made slaves, or butchered without mercy. Hulaku died in 1264, and at his death we may fix the greatest extent of the Mogul empire. It now comprehended the whole continent of Asia, excepting part of Hindostan, Siam, Pegu, Cochin China, and a few countries of Lesser Asia, which had not been attacked by them; and during all these vast conquests no Mogul army had been conquered, except one by Jaloloddin. From this period, however, the empire began to decline. The ambition of the khans having prompted them to invade the kingdoms of Japan and Cochin-China, they were miserably disappointed in their attempts, and lost a great number of men. The same bad success attended them in Hindostan; and in a short time this mighty empire broke into several smaller ones. The governors of Persia, being of the family o Jenghiz Khan, owned no allegiance to any superior; those of Tartary did the same. The Chinese threw off the yoke; and thus the continent of Asia wore much the same face that it had done before Jenghiz Khan began his conquests.

The successors of Hulaku reigned in Persia till 1335; but that year Abusaid Khan, the eighth from Hulaku, dying, the affairs of that country fell into confusion for want of a prince of the race of Jenghiz Khan. The empire, therefore, was divided among a great number of petty princes, who fought against each other almost without intermission, till, in 1369, Timur Bek, or Tamerlane, one of these princes, having conquered a number of others, was crowned at Balkh, with the pompous title of Saheb Karan; that is, 'the emperor of the age, and conqueror of the world.' As he had just before taken that city, and destroyed one of his most formidable rivals, who had shut himself up in it, the new emperor began his reign with beheading some of the inhabitants, imprisoning others, burning their houses, and selling the women and children for slaves. In 1370 he crossed the Sihun, made war on the Getes, and attacked Karazm. Next year he granted a peace to his enemies; but, two years after, he again invaded the country of the Getes, and by the year 1379 had fully conquered that country as well as Korazan; and from that time he continued to extend his conquests in much the same manner as Jenghiz Khan had done, though with less cruelty. In 1387 he had reduced Armenia, Georgia, and all Persia; the conquest of which last was completed by the reduction of Ispahan, 70,000 of the inhabitants of which were slaughtered on account of a sedition. After the reduction of Persia, Timur turned his arms northward and westward, subduing all the countries to the Euphrates. He took Bagdad, subdued Syria, and, having ravaged great part of Russia, returned to

Persia in 1396, where he splendidly feasted his whole army. In 1398 he invaded Hindostan, crossed the Indus on the 17th of September, reduced several fortresses, and made a vast number of captives. However, being afraid lest, in case of any emergency, these prisoners might take part with the enemy, he ordered his soldiers to put all their Indian slaves to death; and, in consequence of this inhuman order, more than 100,000 of these poor wretches were slaughtered in less than an hour. In the beginning of 1399 Timur was met by the Indian army, whom, after a desperate battle, he defeated with great slaughter, and soon after took the city of Delhi, the capital of the country. Here he seated himself on the throne of the Indian emperors, and here the sharifs, kadis, and principal inhabitants of the city, came to make their submission, and begged for mercy. The tame elephants and rhinoceroses likewise were brought to kneel before him, as they had been accustomed to do to the Indian emperors, and made a great cry as if they implored his clemency. These war-elephants, 120 in number, were, at his return, sent to Samarcand, and to the province where his sons resided. After this, at the request of the lords of the court, Timur made a great feast; at which he distributed presents to the princes and principal officers. Delhi at this time consisted of three cities called Seyri, Old Delhi, and Jehan Penah. Seyri was surrounded with a wall in form of a circle. Old Delhi was the same, but much larger, lying south-west of the other. These two parts were joined on each side by a wall; and the third, lying between them, was called Jehan Penah, which was larger than Old Delhi. Penah had ten gates; Seyri had seven, three of which looked towards Jehan Penah; this last had thirteen gates, six to the north-west, and seven to the south-east. Every thing seemed to be quiet, when, on the 12th of January 1399, the soldiers of Timur, being assembled at one of the gates of Delhi, insulted the inhabitants. The great emirs were ordered to put a stop to these disorders, but could not; and, the gates being open, above 15,000 more soldiers got in, while a far greater number of troops committed greater disorders in Seyri and Jehan Penah. The inhabitants in despair fell on them, while the disorder was increased by the admission of more troops; so that by the morning of the 13th the whole army was entered, and this great city was totally destroyed, and the people massacred or sold for slaves. The spoils in jewels, plate, &c., were immense. On the 15th, in Old Delhi, the Indians retired into the great mosque to defend themselves; but being attacked by the Tartars, they were slaughtered, and a dreadful carnage ensued throughout the whole city. The artisans were divided among the princes and commanders; but the masons were reserved for the emperor, to build a spacious stone mosque at Samarcand.

After this terrible devastation, Timur marched into the different provinces of Hindostan, every where defeating the Indians who opposed him, and slaughtering the Ghebres or worshippers of fire. On the 25th of March he set out on his return, and on the 9th of May arrived at Samarcand. In a few months after his arrival, he was obliged to go into Persia, where affairs were in the utmost disorder by the misconduct of his son, whom he had appointed sovereign of that empire. Timur soon settled matters; after which he again set out on an expedition westward, reduced many places in Georgia which had not submitted, and conquered Syria. At the same time he quarrelled with Bajazet the Turkish sultan, then busied in an enterprise against Constantinople. Bajazet had demanded tribute from a prince who was under Timur's protection, and returned an insulting answer to the Tartar ambassadors, who were sent to him on that business. Timur, being an enthusiast in the cause of Mahometanism, and considering Bajazet as engaged in the cause of heaven when besieging a Christian city, was very unwilling to disturb him in so pious a work; and therefore undertook several expeditions against the princes of Syria and Georgia, to give the Turkish monarch time to cool. Among other places he again invested Bagdad, which had cast off its allegiance; and, having taken it by storm, made such a dreadful massacre of the inhabitants that 120 pyramids were erected with the heads of the slain. In the mean time Bajazet continued to give fresh provocation, by protecting one Kava Yusef, a robber, who had insulted the caravan of Mecca; so that Timur at length resolved to make war upon him. Bajazet, foreseeing the danger of bringing such a formidable enemy against himself, asked pardon, by a letter, for what was passed, and promised obedience to Timur's will for the future. This embassy was graciously received; and Timur returned for answer, that he would forbear hostilities, provided Bajazet would either put Kava Yusef to death, send him to the Tartar camp, or expel him out of his dominions. Along with the Turkish ambassadors he sent one of his own; telling Bajazet that he would march into the confines of Antolia, and there wait his final answer. Though Bajazet had seemed at first willing to come to an agreement with Timur, yet he now behaved in such an unsatisfactory manner that the Tartar monarch desired him to prepare for war; upon which he raised the siege of Constantinople; and, having met Timur with an army greatly inferior to the Tartars, was utterly defeated and taken prisoner. This victory was followed by the submission of many places of Lesser Asia to Timur; the Greek emperor owned himself his tributary, as did also the sultan of Egypt. After this, Timur once more returned to Georgia, which he cruelly ravaged; after which he marched to Samarcand, where he arrived in 1405. Here, being now old, this mighty conqueror began to look forward to that state which at one time or other is the dread of all mankind; and, to quiet the remorse of his conscience, came to the following curious resolution, which he communicated to his friends; viz. that 'as the vast conquests which he had made were not obtained without some violence, which had occasioned the destruction of a great number of God's creatures, he was resolved, by way of atonement for his past crimes, to perform some good action; namely, to make war on the infidels, and exterminate the idolaters of China.' This atonement, however, he did not live to

accomplish; for he died the same year of a burning fever, in the seventy-first year of his age, and thirty-sixth of his reign.

On the death of Tamerlane, his empire fell immediately into great disorder, and the civil wars continued for five or six years; but at last peace was restored, by the settlement of Shah Rukh, Timur's son, on the throne. He did not, however, enjoy the empire in its full extent, or indeed much above one-half of it; having only Karazm, Khorassan, Kandahar, Persia, and part of Hindostan. Neither was he able, though a brave and warlike prince, to extend his dominions, though he transmitted them to his son Ulag Beg. He proved a wise and learned monarch; and is famous for the astronomical tables which he caused to be composed. He was killed in 1448 by his son Abdollatiff, who six months after was put to death by his own soldiers. After the death of Abdollah, a grandson of Shah Rukh, seized the throne; but after reigning one year, was expelled by Abusaid Mirza, the grandson of Miran Shah, the son of Timur. His reign was one continued scene of wars and tumults; till at last he was defeated and taken prisoner by one Hassan Beg, who put him to death in 1468. From this time we may consider the empire of Timur as dissolved, though his descendants still reigned in Persia and Hindostan. On the death of the above mentioned monarch, his son Baber succeeded him, but was soon driven out by the Usbeck Tartars; after which he resided some time in Gazna, when he made incursions into Hindostan, and at length became master of the whole empire, excepting the kingdoms of Dekan, Guzerat, and Bengal. For the transactions subsequent to this period, see HINDOSTAN and INDIA.

MO'HAIR, *n. s.* Fr. *mohere, moire;* Belg. and Teut. *moor.* Stuff made of camels' or other hair.

> She, while her lover pants upon her breast,
> Can mark the figures on an Indian chest,
> And when she sees her friend in deep despair,
> Observes how much a chintz exceeds *mohair.*
>
> *Pope.*

MOHAIR, in commerce, is the hair of a kind of goat frequent about Angora in Turkey; the inhabitants of which city are all employed in the manufacture of camblets made of this hair. Some give the name mohair to the camblets or stuffs made of this hair: of these there are two kinds: the one smooth and plain, the other watered like tabbies. The difference between the two only consists in this, that the latter is calendered, the other not. There are also mohairs, both plain and watered, whose woof is of wool, cotton, or thread.

MOHAMMED (Sheick), the founder of the sect of the Wahebites, who derive their appellation from Abd el Waheb, the father of Mohammed, was born in Arabia, about the commencement of the eighteenth century, and claimed to be descended from the prophet of his religion. At an early age he formed the project of founding a new sect; and carefully studied the laws and traditions of the moslems. Ill-treated by his father, he at first fled and took refuge at Bassora; afterwards he travelled through Syria and Arabia. Mohammed Ibn Seoud, governor of one of the provinces of Arabia, at length gave him an asylum, and permitted him freely to propagate his opinions. From this chief he obtained a detachment of troops to assist his missionary labors; and, like his great namesake and predecessor, he offered to the choice of his hearers the alternative of conversion or death. On the death of his protector, he found the same favor with his successor, Abd el Aziz, who, at the head of his troops, converted to Wahebism all the tribes of the province of Nejd. An ineffectual attempt, made by the pacha of Bagdad, to crush this sect in 1798, added to their power; and in 1800 they made themselves for some time masters of Mecca. In the course of the expedition, however, Mohammed died at an advanced age; and Ebd el Aziz, who survived him a few years, was assassinated in 1803. The sect thus founded receive the Koran as of divine authority, but reject the traditions of the doctors; and their profession of faith is confined to the words, 'There is no other God but God,' without the addition, 'that Mahomet is the prophet of God.'

MOHAWK, a river of New York, North America, which rises about twenty miles north of Rome. It passes by Rome, Utica, Schenectady, &c., and flows into the Hudson by three mouths between Waterford and Troy. Its length from Rome to the Hudson is about 117 miles. It is connected with Wood Creek by a canal one mile and a half long. There are also canals at German Flats and Herkimer. A boat navigation has been opened for several years from Schenectady through the Mohawk, Wood Creek, Oneida Lake, and Oswego River, to the Lake Ontario. This river, about two miles west of the Hudson, has remarkable falls, called Cahoes or Cohoes. The river, just above the falls, is between 300 or 400 feet wide, and descends at high water in one sheet nearly seventy feet. About three quarters of a mile below, a bridge is erected across the river, from which there is a most sublime and beautiful view of the cataract.

MOHAWK, a river in Delaware county, New York, which unites with the Popachton and forms the Delaware.

MOHAWKS, a nation of North American Indians, acknowledged by the other tribes of the six nations to be the true old head of the confederacy. They were formerly very powerful, and inhabited the above country. Being strongly attached to the family of Sir William Johnston, a part of them emigrated with Sir John Johnston to Canada in 1776. About 300 of these reside in Upper Canada. The rest left their settlement at Hunter Fort in spring 1780, and settled on the Grand River. They had made great advances in civilisation; most of them could speak English, and many of them professed their faith in the Christian religion.

MOHILEV, a considerable government of West European Russia, to the east of the government of Minsk, lying between 28° 50′, and 32° 40′ of E. long., and 53° 5′ and 55° 10′ of N. lat. Its area is 18,500 square miles, and its population about 800,000, of whom the majority are Poles. Here are likewise great numbers of

Jews. It has an immense extent of forests, and marshes, which, however, contain iron ore that might be turned to good account. The soil is also in general fertile, and produces rye, barley, oats, maize, hemp, and flax, in abundance. The principal rivers are the Dnieper, the Druz, and the Sosha: the largest lake the Sennoje. Timber is conveyed to Riga and the ports of the Black Sea: the other exports are corn, cattle, leather, glass, and paper. The manufactures are confined to a few tanneries, paper mills, and glass and iron works. The other trade is not considerable. It is divided into twelve circles.

MOHILEV, a town of European Russia, the capital of the above government, is situated on the right bank of the Dnieper, and divided into four quarters, of which the castle, surrounded by an earthen mound, is the most conspicuous. It stands on a rising ground. In the centre of the town is an octagonal area, surrounded with neat stone buildings. The government offices, and archbishop's palace, are also handsome edifices. Here is a Greek and a Latin archbishop: the latter being the superior of all the Catholics in Russia and Poland. The Jesuits, on the suppression of their order, found an asylum here, and still retain their college. The population is about 12,500, part of whom manufacture leather, while others trade with Riga, Memel, and Dantzic, to which they export the country produce, and receive in return foreign goods; particularly thrown silk. The number of Jews is nearly 2000. It consists chiefly of one long street. The church is a very handsome building, of the architecture of Henry VII. On the Bailey Hill, on the north of the town, are some towers of its strong and ancient castle. In the vicinity of the town are large cotton mills. Market on Saturday. Population 5083.

MO'HOCK, *n. s.* The name of a nation of American Indians, given to ruffians who infested, or rather were imagined to infest, the streets of London.—Johnson.

From milk-sop he starts up *mohock*. *Prior.*
Who has not trembled at the *mohock's* name?
Gay.

Thou hast fallen upon me with the rage of a mad dog, or a *mohock*. *Dennis.*

MOIDOR', *n. s.* A Portuguese coin, rated at one pound seven shillings. See COINS.

MOI'ETY, *n. s.* Fr. *moitié*, from moien the middle; or Lat. *medietas*. Half; one of two equal parts.

This company being divided into two equal *moieties*, the one before, the other since the coming of Christ; that part which, since the coming of Christ, partly hath embraced, and partly shall embrace, the Christian religion, we term, as by a more proper name, the church of Christ. *Hooker.*

The death of Antony
Is not a single doom; in that name lay
A *moiety* of the world.
Shakspeare. Antony and Cleopatra.

As this is likely to produce a cessation of arms among one half of our island, it is reasonable that the more beautiful *moiety* of his majesty's subjects should establish a truce. *Addison.*

The militia was settled, a *moiety* of which should be nominated by the king, and the other *moiety* by the parliament. *Clarendon.*

MOIL, *v. a.* & *v. n.* Fr. *mouiller*; Scot. *muddle*. To dirt with mire or dirt: to labor in the mire; to toil or drudge in any way.

All they which were left were *moiled* with dirt and mire by reason of the deepness of the rotten way. *Knolles.*

Moil not too much under-ground, for the hope of mines is very uncertain. *Bacon's Essays.*

No more tug one another thus, nor *moil* yourselves, receive
Prize equal. *Chapman's Iliad.*

The name of the laborious William Noy, attorney-general to Charles the First, was anagrammatised, I *moyl* in Law. *Howel.*

Now he must *moil* and drudge for one he loaths
Dryden.

Oh the endless misery of the life I lead! cries the *moiling* husband; to spend all my days in ploughing. *L'Estrange.*

With thee 'twas Marian's dear delight
To *moil* all day, and merry-make at night. *Gay.*

MOINE (Peter le), a French poet, born at Chaumont in Bassigni, A D. 1602. He joined the society of Jesuits, and enjoyed several offices among them. He is chiefly known by his verses, which were collected into one vol. folio in 1671. They show genius and fancy, but are very extravagant and bombastic. Among his prose works are, 1. La Devotion aiseé, Paris, 1652, 8vo; 2. Pensées Morales; 3. A short Treatise on History, in 12mo. He died at Paris, August 22nd, 1672, aged seventy.

MOINE (Stephen le), a learned French protestant minister, born at Caen 1624. He was well skilled in the Greek, Latin, and oriental tongues, and professed divinity with high reputation at Leyden; where he died in 1689. Several dissertations of his are printed together, entitled Varia Sacra, in 2 vols. 4to. He also wrote other works.

MOISSAC, an ancient town and chief place of a subprefecture in the department of the Tarn-et-Garonne, France. It is a post town with an inferior court and a chamber of commerce, and contains 9000 inhabitants. This place is very advantageously situated on the right bank of the Tarn, which is here navigable, and favors a brisk trade that is carried on with Bourdeaux. It stands in a fruitful vale, surrounded by hills covered with vineyards and orchards, producing abundance of excellent fruit. Its manufactures consist of minots, a name given to a certain sort of meal for the supply of the colonies, in which the inhabitants trade, as also in corn, wine, oil, saffron, fish, salt, wool, &c. Among the objects worthy of note may be mentioned the bridge lately built over the Tarn, and the fountain. It is twenty-one miles north-west of Montauban, thirty-six E.S.E. of Agen, and 504 south of Paris.

MOIST, *adj.* & *v. a.* MOIS'TEN, *v. a.* MOIS'TENER, *n. s.* MOIST'NESS, MOIS'TURE. French *moite*; Arm. *moues*. Wet; damp; juicy: to moist or moisten is to make damp or wet in a small degree: moistener, the person or thing that moistens: moistness and moisture, state of being damp or moderately wet: hence a small quantity of liquid.

His breasts are full of milk, and his bones are *moistened* with marrow. *Job* xxi. 24.

Sometimes angling to a little river near hand, which, for the *moisture* it bestowed upon roots of some flourishing trees, was rewarded with their shadow. *Sidney.*

Write till your ink be dry; and with your tears
Moist it again; and frame some feeling line.
Shakspeare.

All my body's *moisture*
Scarce serves to quench my furnace-burning heat.
Id.

A pipe a little *moistened* on the inside, so as there be no drops left, maketh a more solemn sound than if the pipe were dry. *Bacon.*

Set such plants as require much *moisture* upon sandy, dry grounds. *Id. Natural History.*

Pleasure both kinds take in the *moistness* and density of the air. *Id.*

While dryness *moisture*, coldness heat resists,
All that we have, and that we are, subsists.
Denham.

The hills to their supply
Vapour, and exhalation dusk and *moist*,
Sent up amain. *Milton.*

When torrents from the mountains fall no more, the swelling river is reduced into his shallow bed, with scarce water to *moisten* his own pebbles. *Dryden's Æneid.*

The small particles of brick or stone the least *moistness* would join together. *Addison's Guardian.*

If some penurious source by chance appeared
Scanty of waters, when you scooped it dry,
And offered the full helmet up to Cato,
Did he not dash the untasted *moisture* from him?
Addison.

Why were the *moist* in number so outdone,
That to a thousand dry they are but one?
Blackmore.

Many who live well in a dry air, fall into all the diseases that depend upon a relaxation in a *moist* one. *Arbuthnot.*

Nor yet, when *moist* Arcturus clouds the sky,
The woods and fields their pleasing toils deny.
Pope.

The rose had been washed, just washed in a shower
Which Mary to Anna conveyed,
The plentiful *moisture* encumbered the flower,
And weighed down its beautiful head. *Cowper.*

MOIVRE (Abraham), F.R.S., an eminent mathematician, born at Vitri in Champagne in 1667. On the revocation of the edict of Nantes, he determined to fly into England rather than abandon the Protestant religion. Before he left France, he had begun to study mathematics; and, having perfected himself in that science in London, he resolved to teach it. Newton's Principia showed him how little progress he had made in a science of which he thought himself master. From this work he acquired a knowledge of the geometry of infinites with as great facility as he had learned the elementary geometry. His success in these studies procured him a seat in the Royal Society of London, and in the Academy of Sciences at Paris. His merit was so much esteemed that he was called in to decide the famous dispute between Leibnitz and Newton, concerning the differential calculus. He published a Treatise on Chances in 1738, and another on Annuities in 1752; both extremely accurate. The Philosophical Transactions contain many interesting memoirs of his composition, some on the method of fluxions; others on the lunula of Hippocrates; others on physical astronomy, in which he resolved many important problems; and others on the analysis of the games of chance. He died in London in 1754, aged eighty-seven. He was intimately acquainted with the best authors of antiquity; and was often consulted about difficult passages in their works.

MOKDASI, a title among the oriental Christians, similar to that of hadsji among the Turks, given to those pilgrims who have not only performed the journey to Jerusalem, but kept the passover in it, and assisted at all the ceremonies of the holy weeks.

MOKONTPORE, or MUKKUNPORE, a town of Hindostan, in the province of Agra, is situated on the bank of the Issah River, and contains the mausoleum of the celebrated Mahometan saint Syed Bedia Addeen, or Shah Mudar. Immense numbers of pilgrims resort to this tomb in the Jummad al Avul of every year, and remain here a fortnight. From all the large towns they go in bodies, distinguished by flags, and accompanied by drums and music. The town is chiefly occupied by attendants on the tomb, clothed in black, who lay the pilgrims under heavy contributions. Long. 80° 20′ E., lat. 26° 45′ N.

MOKSCHAN, a town of the government of Penza, European Russia. It has five churches, a monastery, and 4100 inhabitants, chiefly employed in agriculture. It stands near the river Moksha, thirty-six miles W.N.W. of Penza. Long. 44° 50′ E., lat. 58° 40′ N.

MOLA, a considerable but decayed town of Italy, in the south-east part of the kingdom of Naples, on the Adriatic, and in the province of Bari. It has a good harbour, but the streets are irregular and gloomy. The chief trade is in the products of the adjacent soil. Twelve miles south-east of Bari.

MOLA, or MOLA DI GAETA, a town of Italy, situated on the Via Appia, and around which are seen ruins of tombs and other structures. It is in the north-west part of the kingdom of Naples, in the Terra di Lavoro, and is a long straggling place, but has a pleasant neighbourhood, and a fort. The inhabitants, about 2000, live in great poverty, bearing the appearance of, and being in reality little better than banditti. The most remarkable ruins are those of the Villa Ciceronis, in the neighbourhood of Formiæ. Three miles north of Gaeta, and thirty-seven north-west of Naples.

MOLA SALSA, salt cake, in antiquity, was barley parched, and afterwards ground to meal or flour, then mixed with salt and frankincense, with the addition of a little water. Thus prepared, it was sprinkled between the horns of the victim before it was killed in sacrifice. This act was called immolatio, and was common to the Greeks and Romans; with this difference, that the mola of the Romans was of wheat. The Greeks called it ἅλη or ἁλουχτη.

MOLAI (James de), the last grand master of the Knights Templars, was admitted into the order about 1265. On the death of William de Beaujeu, he was unanimously elected to the office of grand master. The great wealth and power

of the order, with their pride and dissolute manners, had at this time created them a multitude of enemies. In 1307 an order was issued for the general arrest of the knights throughout France. They were accused of heresy, impiety, and hideous crimes. Fifty-seven were burnt in the year 1311, and the order was abolished the following year by the council of Vienne. Molai was detained in prison at Paris till 1313, when his trial took place before commissioners appointed by the pope, and confessing the crimes alleged against him, he was condemned to perpetual seclusion. Having subsequently retracted his confession, he was executed as a relapsed heretic, and perished in the flames at Paris, March 18th, 1314.

MOLARES, or dentes molares, in anatomy, the large teeth, called in English the grinders. See ANATOMY.

MOLDAU, a large, rapid river of Bohemia, rising near the mountains that separate it from Bavaria, to the south-west of Prachatitz. It passes by Budweis, Teyn, and Prague, and joins the Elbe above Melnik. In its course it receives the Malsch, Buschnitz, Woltawa, Sasawa, and Miess, and is navigable as far as Hohenfurt.

MOLDAU, or MOLDAVA, a considerable river of Germany, rises in the Carpathian Mountains, traverses the Austrian province of the Bukowine, after which it enters the Turkish province of Moldavia, to which it gives name, and joins the Sereth at the town of Roman.

MOLDAVIA, a north-eastern province of European Turkey, situated between long. 26° 16′ 45″ and 28° 30′ 15″ E., and lat. 45° 25′ and 48° 13′ N., bounded on the east by Russia, on the west by Transylvania, on the north by Austrian Poland, and on the south by Wallachia and Bulgaria. Its length from north to south is nearly 200 miles; its breadth about 120, and its superficial extent since 1812, when its eastern division was ceded to Russia, not above 17,000 square miles. It is divided into Upper Moldavia, or Zara de Suss, and Lower Moldavia, or Zara de Schass; the first containing four, and the last nine minor districts. The surface of the country is one vast undulating plain, generally covered with grass, and without hedges or landmarks. The great Carpathian chain separates it from Transylvania; and various small lakes diversify the landscape. The principal rivers are the Danube, the Pruth, and the Sereth. The larger lakes those of Bratetsch and Dorohoe. The climate, though warm in summer, is severe in winter; and in the neighbourhood of marshes unhealthy in the warm season. Its chief products are wheat, barley, maize, and millet, wine, and tobacco. Large quantities of wine are exported to Poland and Russia. Some qualities bear a considerable resemblance to Champagne, and all the white wines of the mountains are fine. It has been estimated that more than a fortieth part of the arable land is in a state of tillage: the far greater part being in pasture, and supporting large numbers of cattle, beautiful horses, and sheep. The inhabitants are careful, likewise, of their breed of cattle, of which the annual export (chiefly to Silesia and Bohemia) is computed at 40,000: the export of horses is about 10,000; that of sheep 220,000. The total number of sheep and goats in the country has been estimated at more than 3,000,000. Hogs are also largely fed in the forests, and bees are abundant: their honey is sent to Constantinople; their wax to Venice. The mineral productions are considerable, but few of the mines are wrought. Several of the rivers bring down small particles of gold. The trade of Moldavia is small, and it has no manufactures but for home consumption. The chief commerce, especially that of woollens and silks, is managed by Greek merchants. The Jews settled here deal chiefly in jewellery; the Russians in leather and tobacco; the Turks in Morocco leather, groceries, and perfumes.

Moldavia composed part of the ancient kingdom of Dacia, finally conquered by Trajan. The present inhabitants are the descendants of Goths, Huns, Tartars, and other barbarous tribes. They are governed by princes, called hospodars, who are always Greeks, and appointed by the sultan. Most of the inhabitants profess Christianity; but both boyars (nobles) and peasants are free from the capitation tax paid by other rayahs, or tributary Christians.

Mr. Wilkinson gives the following account of the present state of the common people:—The boyars resemble the barons in the feudal times of Europe. 'Their religious notions, grounded upon the most ridiculous superstitions, are extremely singular. They firmly believe in all sorts of witchcraft, in apparitions of the dead, in ghosts, and in all kinds of miracles performed by the images of saints, and by the virtues of the holy water. In illness, they place an image near them, and when they recover, though it were through the assistance of the ablest physician, they attribute their return to health to the good offices of the image alone. Their observance of Lent days is so strict, that the threats of instant death would hardly prevail upon any one to taste the aliments specified in the endless catalogue of forbidden food. Their other christian duties, although similar to those of the superior classes of their countrymen, are carried to greater excess. Invoking the holy Virgin, or any saint, is always substituted for regular prayer. Divine providence is never directly addressed. The villages throughout the country are principally composed of peasants' huts, all built in the same style and of the same size. The walls are of clay, and the roofs thatched with straw, neither of which are calculated to protect the lodgers from the inclemency of the bad season. The ground floors are, however, occupied as long as the weather will permit, and in winter they retire to cells under ground, easily kept warm by means of a little fire made of dried dung and some branches of trees; which at the same time serves to cook their scanty food. Each family, however numerous, sleep in one of these subterraneous habitations, men, women, and children, all heaped up together; and their respective beds consist of one piece of coarse woollen-cloth, which serves in the double capacity of mattrass and covering.

'Their ordinary food is composed of a kind of dough, to which they give the name of mam malinga, made of the flour of Indian wheat, sometimes mixed with milk. The first two or

three days after a long Lent they sparingly indulge themselves in meat; but the greater part cannot afford even so great a treat, and content themselves with eggs fried with butter, and milk to their mammalinga. They continue the whole day out of doors at work, and they bear with indifference all the extremes of the weather. Their industry, however, is not of a very active kind, and they take frequent rest.

'Notwithstanding this mode of life, and the supposed influence of an ungenial climate, the generality of the peasants are a fine race of people. They have no peculiar turn of features which may be called characteristic; from long intercourse with foreign nations, their blood seems to have become a mixture of many. The Eastern black eye and dark hair, the Russian blue eye and light hair, the Greek and Roman nose, and those features which distinguish the Tartars, are equally common amongst all the orders of these two nations. The dress of the male peasants bears some resemblance to that of the Dacians, as represented in the figures on Trajan's pillar at Rome. Their feet are covered with sandals made of goat skin. They wear a kind of loose pantaloon, which is fastened to the waist by a tight leather belt, and closes from the knee downwards. The upper part of the garment is composed of a tight waistcoat, and a short jacket over it, of coarse cotton stuff; and in winter is added a white sheep-skin, which is hung over the shoulders in the manner of a hussar's pelisse. The head is not deprived of any part of its hair, which is twisted round behind, and a cap is used to cover it, also made of sheep-skin, but which in summer is exchanged for a large round hat. The beard is shaved, and the whiskers alone are left to their natural growth. The women are clothed from the neck to the ancles with a long gown of thick cotton stuff, of a light color, made tight at the waist in such a manner as to render the whole shape visible. They generally go barefooted, and they cover their heads with a common handkerchief, merely meant to keep up the hair On holidays they add to their common shift a colored gown of a better sort; they button it up from the waist to the neck, round which they wear, as an ornament, one or more strings of beads or paras, pierced through for the purpose.' Moldavia also contains a considerable number of gypsies.

Moldavia has few towns, its thinly scattered population not exceeding altogether 300,000.

Situated between Russia, Austria, and Turkey, this province often becomes the scene of hostile operations, and for the last century the inhabitants have hardly had time to breathe after one disastrous war, before another commenced. The administration of justice is in a very imperfect state; the frequent change of rulers, and the right which they have of annulling all the decrees of their predecessors, preventing all improvement: education is neglected: the revenue consists chiefly in a sort of capitation tax, collected in small monthly payments, and imposts on cattle and different sorts of provisions, affording a total of nearly £200,000. The direct tribute to the Porte is about £15,000; the presents to the sultan, his mother, and ministers, are said to amount to about an equal sum.

MOLE, *n.s.* Sax. mœl; Teut. *mahl*; French *mole*; Lat. *mola*. A natural spot on the skin.

To nourish hair upon the *moles* of the face, is the perpetuation of a very ancient custom.
Browne's Vulgar Errours.

Such in painting are the warts and *moles*, which, adding a likeness to the face, are not therefore to be omitted. *Dryden.*

That Timothy Trim and Jack were the same person, was proved, particularly by a *mole* under the left pap. *Arbuthnot.*

The peculiarities in Homer are marks and *moles*, by which every common eye distinguishes him.
Pope.

MOLE, *n. s.* Fr. *mole*; Lat. *moles*. A mound; or dyke.

Sion is streightened on the north side by the sea-ruined wall of the *mole*. *Sandys.*

With asphaltic slime the gathered beech
They fastened; and the *mole* immense wrought on
Over the foaming deep high-arched; a bridge,
Of length prodigious. *Milton's Paradise Lost.*

The great quantities of stones dug out of the rock could not easily conceal themselves, had they not been consumed in the *moles* and buildings of Naples.
Addison on Italy.

Bid the broad arch the dangerous flood contain,
The *mole* projected break the roaring main. *Pope.*

MOLE, *n.s.*, MOLE'CAST, MOLE'CATCHER, MOLE'HILL, MOLE'TRACK, MOLE'WARP, Belg. *mol*. An animal. The TALPA, which see: a molecast and molehill are the hillock thrown up by the mole: molecatcher, one who lives by catching and destroying these animals: moletrack, their course under ground: molewarp, another name for them.

Get *moulecatcher* cunningly *moule* for to kill,
And harrow and cast abroad every hill. *Tusser.*

You fill your solitariness with the conceits of the poets, whose liberal pens can as easily travel over mountains as *molehills*. *Sidney.*

Tread softly, that the blind *mole* may not
Hear a foot fall; we now are near his cell.
Shakspeare.

The *molewarp's* brains mixt therewithal,
And with the same the pismire's gall. *Drayton.*

The rocks, on which the salt-sea billows beat,
And Atlas tops, the clouds in height that pass,
Compared to his huge person *molehills* be. *Fairfax.*

A churchwarden, to express Saint Martin's in the Fields, caused to be engraved a martin sitting upon a *molehill* between two trees. *Peacham.*

Mountains, which to your Maker's view
Seem less than *molehills* do to you. *Roscommon.*

What is more obvious than a *mole*, and yet what more palpable argument of Providence? *More.*

Strange ignorance! that the same man who knows
How far yond' mount above this *molehill* shows,
Should not perceive a difference as great
Between small incomes and a vast estate! *Dryden.*

In Spring let the *molecasts* be spread, because they hinder the mowers. *Mortimer's Husbandry.*

The pot-trap is a deep earthen vessel set in the ground, with the brim even with the bottom of the *moletracks*. *Mortimer.*

Moles have perfect eyes, and holes for them through the skin, not much bigger than a pin's head.
Ray on the Creation.

Our politician having baffled conscience, must not be nonplused with inferior obligations; and, having leapt over such mountains, lie down before a *molehill*.
South's Sermons.

Thy arts of building from the bee receive;
Learn of the *mole* to plow, the worm to weave.
Pope.

Superficial writers, like the *mole*, often fancy themselves deep, when they are exceeding near the surface. *Shenstone.*

MOLE, in architecture, a massive work formed of large stones laid in the sea by means of coffer dams, extended either in a right line or an arch of a circle, before a port, which it serves to close; to defend the vessels in it from the impetuosity of the waves, and to prevent the passage of ships without leave.

MOLE, moles, among the Romans, was also used for a kind of mausoleum, built in manner of a round tower on a square base, insulate, encompassed with columns, and covered with a dome. The mole of the emperor Adrian, now the castle of St. Angelo, was the greatest and most stately of all the moles. It was crowned with a brazen pine-apple, wherein was a golden urn containing the ashes of the emperor.

MOLE, in zoology. See TALPA. Moles in the fields may be destroyed by taking a head or two of garlic, onion, or leek, and putting it into their holes; on which they will run out, and you may kill them with a spear or dog. Or pounded hellebore, white or black, with wheat-flour, the white of an egg, milk, and sweet wine, or metheglin, may be made into a paste, and pellets as big as a small nut may be put into their holes: the moles will eat this with pleasure, and will be killed by it. In places where you would not dig nor break much, the fuming their holes with brimstone, garlic, or other unsavory things, drives them away; and, if you put a dead mole into a common haunt, it will make them forsake it. Or take a mole-spear or staff, and where you see them cast go lightly; but not on the side betwixt them and the wind, lest they perceive you; and, at the first or second putting up of the earth, strike them with your mole-staff, downright, and mark which way the earth falls most; if she casts towards the left hand, strike somewhat on the right hand; and so on the contrary, to the casting up of the plain ground, strike down and there let it remain; then take out the tongue in the staff, and with the spattle, or flat edge, dig round about your grain to the end thereof, to see if you have killed her; and, if you have missed her, leave open the hole and step aside a little, and perhaps she will come to stop the hole again, for they love but very little air; and then strike her again; but, if you miss her, pour into the hole two gallons of water, and that will make her come out. Many may also be taken, when going out in a morning to feed, or coming home when fed.

MOLE-HILLS are a very great prejudice to pasture lands, not only in wasting so much of the land as they cover, but in hindering the scythe in mowing. In the west of England they use a peculiar kind of instrument for the breaking up of these; it is a flat board, very thick, and of about eight inches in diameter, into which there is fastened a perpendicular handle of three or four feet long. It has four broad and sharp iron teeth at the front, which readily cut through the hill, and spread the earth it consists of; and behind there is a large knob for breaking the clods. There is, however, a better instrument for destroying these hills, where they are in very great numbers. This is a kind of horse-machine; it has a sharp iron about three feet over, and with a strong back. It is about four or five inches broad, and has two long handles, for a horse to be harnessed to, and a cross bar of iron to strengthen it at the bottom of the handles, reaching from the one handle to the other. The middle of this cross bar is furnished with one, two, or more, sharp pieces of iron like small ploughshares, to cut the mole-hills into two, three, or more parts. The iron behind is of a semi-circular figure. A single horse is harnessed to this machine, and a boy must be employed to drive it, and a man to hold and guide it; the sharp irons or shares are the first things that meet the hill; they run through it, break its texture, and cut it into several parts; and the circular iron, following immediately behind them, cuts up the whole by the roots, and leaves the land level. This instrument will destroy as many mole-hills in one day as a common laborer can in eight, and would be of very great advantage to the kingdom if brought into general use. It is to be observed, that, this leaving a naked space in the place of every hill, it will be necessary to go over the land, and sow them with hay-seed, otherwise these spots will want the produce of grass the first years. The farmers in some parts of England are not willing to destroy the mole-hills, but let them stand from year to year, supposing that they get some ground by them, but the advantage by this means is so little that it does not balance the unsightliness and damage to the mowing.

MOLEST', *v. a.* } Fr. *molester;* Latin
MOLESTA'TION, *n. s.* § *molesto.* To disturb; vex; trouble.

No man shall meddle with them, or *molest* them in any matter. 1 *Mac.* x. 35.

If they will firmly persist concerning points which hitherto have been disputed of, they must agree that they have *molested* the church with needless opposition. *Hooker.*

The rich and the poor, the mighty and the weak, the fierce and the gentle, the crafty and the simple sorts of men, should live and converse together amicably, safely, and pleasantly, without *molesting*, wronging, oppressing, and devouring, but rather helping and benefiting each other. *Barrow.*

Though useless unto us, and rather of *molestation*, we refrain from killing swallows. *Browne.*

Pleasure and pain signify whatsoever delights or *molests* us. *Locke.*

An internal satisfaction and acquiescence, or dissatisfaction and *molestation* of spirit, attend the practice of virtue and vice respectively,
Norris's Miscellanies.

Both are doomed to death;
And the dead wake not to *molest* the living.
Rowe.

MOLESWORTH (Robert), lord viscount Molesworth, an eminent statesman and writer, born in Dublin in 1656. He was attainted by king James for his activity on the invasion by the prince of Orange; who, when settled on the throne, made him a member of the privy-council, and sent him envoy-extraordinary to Denmark.

Here he resided above three years, and then returned upon some disgust, without an audience of leave. Upon his return he drew up his Account of Denmark, in which he represented that government as arbitrary; and hence gave great offence to George prince of Denmark. The Danish envoy presented a memorial to king William concerning it; and furnished materials for an answer, which was executed by Dr. William King. Mr. Molesworth was member of the houses of commons in both kingdoms: king George I. made him a commissioner of trade and plantations, and advanced him to the peerage of Ireland, by the title of baron Philipstown, and viscount Molesworth of Swords. He died in 1725. He wrote an address to the house of commons, for the encouragement of agriculture; and translated Franco-Gallia, a Latin treatise of the civilian Hottoman.

MOLEVILLE (Francis Bertrand de), a French statesman and historian, born in 1744, first occupied the situation of attendant of the finances in Britanny. In October 1791 he was appointed minister of the marine. Being accused in the Legislative Assembly of having favored the emigration of the officers, in March 1792, he resigned his post. He subsequently took refuge in England, where he employed himself in literary undertakings. He died at Paris in 1819. Among his works are, A Chronological History of England, 6 vols. 8vo.; Memoirs relative to the last Year of the reign of Louis XVI.; and Annals of the French Revolution; all which were first published in English, being translated from the MSS. of the author.

MOLIERE (John Baptist), a famous French comedian, whose original name was Pocquelin. He was the son of a valet de chambre, and was born at Paris about 1620. He studied the classics under the Jesuits in the college of Clermont, and was designed for the bar; but, on quitting the law schools, he became an actor. From his fondness for the drama, he continued till his death to exhibit plays, which were greatly applauded. It is said the first motive of his going upon the stage was to enjoy the company of an actress, for whom he had contracted a violent affection. His last comedy was Le Malade Imaginaire, which was first acted in 1673; and Moliere died on the fourth night of its representation; some say in acting the very part of the dead man; but others say he died in his bed that night, from the bursting of a vein in his lungs by coughing. The king prevailed with the archbishop of Paris to suffer him to be buried in consecrated ground; though he had irritated the clergy by his Tartuffe. The best editions of his works are those of Amsterdam, 5 vols. 12mo., 1699; and Paris, 6 vols. 4to., 1734.

MOLINA, a celebrated Jesuit, founder of the sect of the Molinists. He taught that the operations of divine grace were entirely consistent with the freedom of human will; and introduced a new hypothesis to remove the difficulties attending the doctrines of predestination and liberty, and to reconcile the jarring opinions of Augustines, Thomists, Semi-Pelagians, and other polemical divines. He affirmed that the decree of predestination to eternal glory was founded upon a previous knowledge and consideration of the merits of the elect; that the grace, from whose operation these merits are derived, is not efficacious by its own intrinsic power only, but also by the consent of our own will, and because it is administered in those circumstances in which the Deity, by that branch of his knowledge which is called scientia media, foresees that it will be efficacious. The kind of prescience, denominated in the schools scientia media, is that foreknowledge of future contingents that arises from an acquaintance with the nature and faculties of rational beings, of the circumstances in which they shall be placed, of the objects that shall be presented to them, and of the influence which their circumstances and objects must have on their actions.

MOLINOS (Michael), a Spanish priest, born in the diocese of Saragossa in 1627. He entered into priest's orders, but never held any benefice. He wrote a work entitled Il Guida Spirituale, containing his peculiar notions, which was much read in Italy and Spain. His followers are called Quietists; because his chief tenet was that men ought to annihilate themselves to be united to God, and afterwards remain in quietness of mind, without being concerned about what may happen to the body. He was taken up in 1687, and his sixty-eight propositions were examined by the pope and inquisitors, who decreed that his doctrine was false and pernicious; that his books should be burnt; and that he should recant his errors publicly in the Dominican church. Thus he was condemned to perpetual imprisonment, in his sixtieth year, for doctrines which he had been spreading twenty-two years before. He died in prison in 1692.

MOLISE, the ancient Samnium, a mountainous province of Naples, surrounded by the Capitanata, Abruzzo, Principato Ultra, and Terra di Lavoro. It contains about 1200 square miles, and is watered by the Tamaro, Bifuno, and Tregno rivers; its forests and pasturages are extensive, but are occupied by goats, sheep, and hogs more than cattle. Inhabitants 207,000.

MOL'LIENT, *adj.* Lat. *molliens, mollis.*
MOLLIFI'ABLE,
MOLLIFICA'TION, *n.s.*
MOL'LIFIER,
MOL'LIFY, *v. a.*
} Softening: mollifiable means that which may be softened: mollification, the act of mollifying; purification; mitigation: mollifier, a thing or person that softens or mitigates: to mollify (Fr. *mollir*), to assuage; soften; quiet; qualify.

Sores have not been closed, neither bound up, neither *mollified* with ointment. *Isaiah* i. 6.

Neither herb, nor *mollifying* plaister, restored them to health. *Wisd.* xvi. 12.

Thinking her silent imaginations began to work upon somewhat, to *mollify* them, as the nature of musick is to do, I took up my harp. *Sidney.*

He brought them to these savage parts,
And with sweet science *mollified* their stubborn hearts. *Spenser.*

Some *mollification*, sweet lady. *Shakspeare.*

For induration or *mollification*, it is to be inquired what will make metals harder and harder, and what will make them softer and softer. *Bacon.*

The root hath a tender, dainty heat; which, when

it cometh above ground to the sun and air, vanisheth; for it is a great *mollifier*. *Id.*

Our proceedings in the cure of the painful tumors of the body, direct us what to do in the spiritual: we lay suppling and *mollifying* plaisters to these angry swellings, ere we make use of the lancet. *Bp. Hall.*

They would, by yielding to some things, when they refused others, sooner prevail with the houses to *mollify* their demands, than at first to reform them. *Clarendon.*

The crone on the wedding night, finding the knight's aversion, speaks a good word for herself, in hope to *mollify* the sullen bridegroom. *Dryden.*

Cowley thus paints Goliah:

'The valley, now, this monster seemed to fill,
And we, methought, looked up to him from our hill;'

where the two words, seemed and methought, have *mollified* the figure. *Dryden.*

MOLLOY (Charles), Esq., a well-known writer of the eighteenth century, was born in Dublin, and educated at Trinity College, of which he became a fellow. On his coming to England he entered of the Middle Temple, and is said to have had a very considerable hand in a periodical paper called Fog's Journal; and to have been almost the sole author of another well-known paper, entitled Common Sense. He had large offers made him to write in defence of Sir Robert Walpole, but rejected them; notwithstanding which, at the change of the ministry in 1742, he was entirely neglected. But, having married a lady of fortune, he treated the ingratitude of his patriotic friends with contempt. He also wrote three dramatic pieces, viz. The Perplexed Couple; The Coquet; and The Half-pay Officers; none of which met with much success. He died 16th July, 1767.

MOLLUCELLA, in botany, a genus of plants belonging to the didynamia class, and gymnospermia order: CAL. campanulate, dilated, broader than the corolla, spinous. Species six, natives of the Molucca Islands, Syria, and Tartary; some of them shrubs, others annual herbaceous plants.

MOLLUGO, African chickweed, a genus of the trigynia order, and triandria class of plants; natural order twenty-second, caryophylleæ: CAL. pentaphyllous: COR. none: CAPS. trilocular and trivalved. Its characters are these: the empalement of the flower is composed of five oblong small leaves, colored on their insides, and permanent; the flower has five oval petals shorter than the empalement, and three bristly stamina, which stand near the style, terminated by single summits; it has an oval germen, having three furrows, supporting three very short styles; the germen becomes an oval capsule with three cells, filled with small kidney-shaped seeds. There are several species, few of which are admitted into gardens. Miller reckons two, and Linné five species. This plant is said to have an aperitive virtue.

MOLLUSCA, in zoology, the second genus of vermes or worms. These are simple naked animals, not included in a shell, but furnished with limbs, and comprehend eighteen subordinate genera, and 110 species.

MOLMUTIN LAWS, in ancient British history, the laws of Dunwalla Molmutius, the sixteenth king of the Britons. They are said to have been in use till the Norman conquest.

MOLO, a philosopher of Rhodes, called also Apollonius. Some are of opinion that the philosopher Apollonius and Molo were different persons, both natives of Alabanda, and disciples of Menecles. They both visited Rhodes, and there opened a school; but Molo came some time after Apollonius. Molo had Cicero and Julius Cæsar among his pupils.

MOLOCH, or MOLECH, Heb. מלך, i. e. king, a false god of the Ammonites, who dedicated their children to him by making them 'pass through the fire,' as the Scriptures express it. There are various opinions concerning this method of consecration. Some think the children leaped over a fire sacred to Moloch; others that they passed between two fires; but the most probable opinion is that they were really burnt in the fire, as sacrifices to this god. For, although it was usual among the pagans to lustrate or purify with fire, yet it is expressly said that the inhabitants of Sepharvaim burnt their children in the fire to Anamelech and Adramelech; deities similar to Moloch of the Ammonites. Moses, in several places, forbids the Israelites to dedicate their children to this god as the Ammonites did, and threatens utter extirpation to such as were guilty of this abominable idolatry. The Hebrews were, however, much addicted to this barbarous superstition. Amos, and after him Stephen, reproaches them with having carried along with them into the wilderness the tabernacle of their god Moloch. Solomon built a temple to Moloch upon the mount of Olives; and Manasseh, long after, imitated his impiety, by making his son pass through the fire in honor of Moloch. It was chiefly in the valley of Tophet and Hinnom, east of Jerusalem, that the Israelites paid their idolatrous worship to this false God. See BEN-HINNOM and GEHENNA. Some mythologists make Moloch the same with Saturn, to whom human sacrifices were offered; others the sun. Moloch was likewise called Milcom, as appears from 1 Kings xi. 5, 7, 33.

MOLOGA, a town of European Russia, in the government of Jaroslav, situate at the junction of the Mologa River with the Wolga, in long. 38° 22′ E., and lat. 58° 1′ N. Population, generally employed on the Wolga, 2000.

MOLOSSES, or MOLASSES, that gross fluid matter remaining of sugar after refining, and which no boiling will bring to a consistence more solid than that of syrup; hence also called syrup of sugar. Properly, molosses are only the sediment of one kind of sugar called chypre, or brown sugar, which is the refuse of other sugars not to be whitened or reduced into loaves. Molosses are much used in Holland for the preparation of tobacco, and also among poor people instead of sugar. There is a kind of brandy or spirit made of molosses.

MOLOSSES, ARTIFICIAL. There has been found a method of making molosses from apples, without the addition of sugar. The apple that succeeds best in this operation is a summer-sweeting of a middle size, pleasant to the taste, and so full of juice that seven bushels will yield a barrel of

cyder. The method of making it is this:—The apples are to be ground and pressed; then the juice is to be boiled in a large copper, till three-quarters of it be evaporated; this will be done, with a moderate fire, in about six hours, with the quantity of juice above-mentioned: by this time it will be of the consistence and taste, as well as of the color, of molosses. These new molosses serve all the purposes of the common kind, and are of great use in preserving cyder. Two quarts, put into a barrel of racked cyder, will preserve it, and give it an agreeable color. The invention of this kind was owing to Mr. Chandler of Woodstock in New England, who, living at a distance from the sea, and where the common molosses were very dear and scarce, provided this for the supply of his own family, and soon made it the practice among people of the neighbourhood. It is to be observed that this sort of apple, the sweeting, is of great use in making cyder, one of the very best kinds we know being made of it. The people in New England also feed their hogs with the fallings of their orchards of these apples; in consequence of which their pork is the finest in the world.

Molosses Spirit, a very clean and pure spirit, much used in England, and made from molosses or common treacle dissolved in water, and fermented in the same manner as malt, or the common malt spirit. See Distillation. Molosses spirit coming dearer than that of malt, it is frequently met with basely adulterated with a mixture of that spirit, and indeed seldom is to be bought without some dash of it. Many have a way of mixing malt in the fermenting liquor: by this the produce of the whole is greatly increased, and the maker may assure the buyer that the spirit is pure as it ran from the worm. In most of the nice cases in our compound distillery, the molosses spirit supplies the place of a pure and clean spirit. Cinnamon, citron, and other fine cordial waters, are made with it; for the malt spirit would impart to these a very disagreeable flavor. Molosses spirit gives a yellow stain to the hands, or other substances dipped into it; and may therefore be of use in dyeing. The vinegar-makers may also find use for it; but the most advantageous of all its uses is to the distiller; a quantity of it added to new treacle for fermentation is of great use in the process, and increases very considerably the quantity of spirit; but the proportion, in regard to the new matter, must not be too great.

MOLOSSIA, or Molossis, a territory of Epirus, so named from king Molossus, son of Pyrrhus and Andromache. This country had the bay of Ambracia on the south, and the country of the Perrhæbeans on the east. The dogs of the place were famous, and received the name of Molossi among the Romans. Dodona was the capital of the country, though others reckon it the chief city of Thesprotia.

MOLOSSUS, in the Greek and Latin poetry, a foot consisting of three long syllables. As audiri, cantabant, virtutem. It takes its name either from a dance in use among the Molossi, or from the temple of Jupiter Molossus, where odes were sung, in which this foot had a great share; or else because the march of the Molossi, when they went to the combat, was composed of these feet, or had the cadence thereof. The same foot was also called among the ancients, vertumnus, extensipes, hippius, et canius.

MOLSA (Tarquinia), daughter of Camillo Molsa, a knight of the order of St. James of Spain, a most accomplished lady, who was born at Ferrara. Her father early observing the excellence of her genius, procured her the best masters in every branch of literature and science. Lazarus Labadini taught her polite literature; and her Latin compositions show that she profited by his instructions. She studied Aristotle under Camillo Corcapani; Anthony Guarini taught her astronomy; she learned poetry under Francis Patricius; Greek, logic, and philosophy under P. Latoni. The rabbi Abraham taught her the Hebrew language; and John Marier Barbier instructed her in the Tuscan, in which she wrote a great number of elegant verses, letters, and other pieces, which are still held in esteem. She also translated several pieces from Greek and Latin in an elegant manner. She attained the highest degree of perfection in music; and played upon the violin and lute, and sung to them in a most exquisite taste. She instituted a choir of ladies, over which she presided. She was in high reputation at the court of Alphonsus II. duke of Ferrara. But the most decided compliment to her merit she received from Rome. By a decree of the senate, she was honored with the title of Singular, and the rights of Roman citizens were granted to her and the whole family. She was married, but lost her husband without having any children.

MOLTEN, part. pass of Melt, which see.

Brass is *molten* out of the stone.
Job xxviii. 2.

In a small furnace made of a temperate heat; let the heat be such as may keep the metal *molten*, and no more. *Bacon.*

The riches and pride of their outward habit, are they willing to part with, to their *molten* god.
Bp. Hall.

Love's mystick form the artizans of Greece
In wounded stone, or *molten* gold express. *Prior.*

MOLUCCA Islands. The Moluccas, in the former extent of this name, included all the islands situated to the east of the Molucca passage, or in about long. 126° E. The word seems to be Arabic, and to signify Royal Islands, each of them being anciently the residence of a sovereign. This name was afterwards more particularly applied to the Spice Islands of Banda, Amboyna, Ceram, Ternata, Tidore, and Batchian, which see in their alphabetical places.

These islands present the appearances of having undergone some great natural convulsion, being singularly broken, and rising in enormous peaks from the ocean; most of them are also volcanoes either extinct or active. Earthquakes are likewise very frequent, though seldom violent.

The nature of the climate, and of the soil in most of these islands, prevent the cultivation of any kind of grain; the former being, for one season, a constant rain, and for the other an uninterrupted drought; while the latter is in general either spongy or rocky; hence the staple food of the islanders is derived from the sago palm,

which nature has given to them in vast profusion, as if to compensate for the corn she has denied them. The chief riches of these islands, however, and without which they would never have attracted the notice of Europeans, are their nutmegs and cloves, which are indigenous in no other region of the globe. The most remarkable animals are the babeeroussa, or hogdeer, the opossum, the phalanger, the moschus pygmæus, and the wild hogs and common deer.

Valentyn notices a singular phenomenon in that part of the sea usually called the Banda Sea. Between June and September, every year, a current of white water occupies this part, first appearing towards the south-east, near the islands of Key and Timor Laut, and gradually spreading to the shores of Ceram on the north, and of Ombay on the west, beyond which it disappears between Flores and Celebes. During the day its color is that of milk, and in the night it emits a light similar to that of the horizon; the water which composes it seems to be agitated internally, and, while the phenomenon lasts, the fish disappear from the coasts.

The Portuguese, who first came hither in 1510, succeeded in establishing themselves in possession of the islands, which were wrested from them by the Dutch in 1607. They remained with the Dutch since that period, till their capture by the British during the late wars, by whom, however, they were again surrendered in 1814 to their former rulers. They were formerly subject in succession to the Chinese, the Javanese, and the Malayans; and the Mahometans had begun to settle in them, and convert the inhabitants, but a little before they were discovered by the Portuguese. We have described each of these islands under its particular appellation.

MO'LY, *n. s.* Fr. *moly;* Lat. *moly* Swe d. *mola.* A plant. See below.

Sweet is the nut, but bitter is his pill;
Sweet is the bloomflower, but yet sour enough;
And sweet his *moly*, but his root is ill;
To every sweet with sour is tempered still,
That maketh it be coveted the more:
For easy things, that may be got at will,
Most sorts of men do set but little store.
Spencer.

Moly, or wild garlick, is of several sorts; as the great *moly* of Homer, the Indian *moly*, the *moly* of Hungary, serpent's *moly*, the yellow *moly*, Spanish purple *moly*, Spanish silver-capped *moly*, Dioscorides's *moly*, the sweet *moly* of Montpelier: the roots are tender, and must be carefully defended from frosts: as for the time of their flowering, the *moly* of Homer flowers in May, and continues till July, and so do all the rest except the last, which is late in September: they are hardy and will thrive in any soil.
Mortimer.

The sovereign plant he drew,
And shewed its nature, and its wonderous power,
Black was the root, but milky white the flower;
Moly the name. *Pope's Odyssey.*

MOLY, has been rendered famous by Homer; and hence has been much enquired into, as to its true sense, by the botanists of almost all times. The old interpreters of Homer explain this word by the wild rue; and the only reason for this is, that at some time, probably long after the days of Homer, the people of Cappadocia called the wild rue moly. But this plant is wholly different from the moly of Homer, which Theophrastus affirms grew in his time in Arcadia in great plenty, and had a round bulbous root like an onion, and long and grassy leaves like the squill. On the whole, the moly of Homer seems to have been a species of allium or garlic.

MOLYBDENUM, in chemistry and metallurgy, a metal which is found mineralized by sulphur in the ore called sulphuret of molybdena. This ore, which is very scarce, is found at Glenely in Inverness-shire, imbedded in chlorite-slate, and its granite at Thap in Westmoreland, Coldbeck in Westmoreland, and Huel Gorland in Cornwall. It occurs also in Norway, and in other parts of Europe, in Greenland, and in Siberia. It appears to be a compound of 60 molybdenum and 40 sulphur, and so much resembles plumbago in many of its properties, that they were long considered as varieties of the same substance. It is of a light lead-grey color; its surface is smooth, and feels unctuous; its texture is lamellated; it soils the fingers, and marks paper blueish-black, or silver-grey. It may be cut with a knife. It is generally found in compact masses; seldom in particles, or crystallised.

Scheele, in 1778, showed that from this ore a peculiar acid might be obtained, and in 1782 molybdenum was first procured in a metallic state by Hielm. To obtain this metal is a task of the utmost difficulty. Few chemists have since succeeded in producing this metal, on account of its great infusibility. The method recommended in general is the following:—Molybdic acid is to be formed into a paste with oil, dried at the fire, and then exposed to a violent heat in a crucible lined with charcoal. By this means the oxide becomes decomposed; a black agglutinated metal is obtained, very brittle under the finger, and having a metallic brilliancy. The globules are grey, brittle, and extremely infusible. When heated in open vessels, this mettle combines with the oxygen of the atmosphere and is converted into the white or per-oxide. It is susceptible of three states of oxidisement, giving a brown, a blue, and a white oxide. The two latter having acid properties, are known also by the names of the molybdous and the molybdic acids. Nitric acid readily oxidises and acidifies the metal. Nitre detonates with it, and the remaining alkali combines with its oxide. Molybdenum unites by fusion with several of the metals, and forms brittle or friable compounds. No acid acts on it but the nitric and nitromuriatic. Several acids act on its oxide, and afford blue solutions. The specific gravity of molybdenum is 8·611. When dry, molybdate of ammonia is ignited in a crucible with charcoal powder, it is converted into the brown oxide of the metal. This has a crystallised appearance, a copper-brown color, and a specific gravity of 5·66. It does not form salts with acids.

MOLYBDIC ACID. The native sulphuret of molybdenum being roasted for some time, and dissolved in water of ammonia, when nitric acid is added to this solution, the molybdic acid precipitates in fine white scales, which become yellow on melting and subliming them. It changes

the vegetable blues to red, but less readily and powerfully than the molybdous acid.

M. Bucholz found that 100 parts of the sulphuret gave 90 parts of molybdic acid. In other experiments, in which he oxidised molybdenum, he found that 100 of the metal combined with from 49 to 50 of oxygen. Berzelius, after some vain attempts to analyse the molybdates of lead and barytes, found that the only method of obtaiinng an exact result was to form a molybdate of lead. He dissolved 10 parts of neutral nitrate of lead in water, and poured an excess of solution of crystallised molybdate of ammonia into the liquid. The molybdate of lead, washed, dried, and heated to redness, weighed 11·068. No traces of lead were found in the liquid by sulphate of ammonia; hence these 11·068 of lead evince 67·3 per cent. of oxide of lead. This salt then is composed of

Molybdic acid . .	39·194	9·0
Oxide of lead . .	60·806	14·0
	100·000	

And from Bucholz we infer, that this prime equivalent 9, consists of 3 of oxygen + 6 metal; while molybdous acid will be 2 oxygen + 6 metal = 8·0.

Molybdic acid has a specific gravity of 3·460. In an open vessel it sublimes into brilliant yellow scales; 960 parts of boiling water dissolve one of it, affording a pale yellow solution, which reddens litmus, but has no taste. Sulphur, charcoal, and several metals, decompose the molybdic acid. Molybdate of potash is a colorless salt. Molybdic acid gives, with nitrate of lead, a white precipitate, soluble in nitric acid; with the nitrates of mercury and silver, a white flaky precipitate; with nitrate of copper a greenish precipitate; with solutions of the neutral sulphate of zinc, muriate of bismuth, muriate of antimony, nitrate of nickel, muriates of gold and platinum, it produces white precipitates. When melted with borax it yields a bluish color; and paper dipped in its solution becomes, in the sun, of a beautiful blue.

The neutral alkaline molybdates precipitate all metallic solutions. Gold, muriate of mercury, zinc, and manganese, are precipitated in the form of a white powder; iron and tin, from their solutions in muriatic acid, of a brown color; cobalt of a rose color; copper, blue; and the solutions of alum and quicklime, white. If a dilute solution of recent muriate of tin be precipitated, by a dilute solution of molybdate of potash, a beautiful blue powder is obtained.

The concentrated sulphuric acid dissolves a considerable quantity of the molybdic acid, the solution becoming of a fine blue color as it cools, at the same time that it thickens; the color disappears again on the application of heat, but returns by cooling. A strong heat expels the sulphuric acid. The nitric acid has no effect on it; but the muriatic dissolves it in considerable quantity, and leaves a dark blue residuum when distilled. With a strong heat it expels a portion of sulphuric acid from sulphate of potash. It also disengages the acid from nitre and common salt by distillation. It has some action upon the filings of the metals in the moist way.

The molybdic acid has not been yet employed in the arts.

MOLYBDOUS Acid. The deut-oxide of molybdenum is of a blue color, and possesses acid properties. Triturate 2 parts of molybdic acid, with 1 part of the metal, along with a little hot water, in a porcelain mortar, till the mixture assumes a blue color. Digest in 10 parts of boiling water, filter, and evaporate the liquid in a heat of 120°. The blue oxide separates. It reddens vegetable blues, and forms salts with the bases. Air or water, when left for some time to act on molybdenum, converts it into this acid. It consists of about 100 metal to 34 oxygen.

MOLYN (Peter), surnamed Tempesta, an eminent painter, born at Haerlem in 1637. He was the disciple of Snyders, whose style of painting he at first imitated. But his genius led him to the study of dismal subjects; and as he excelled in painting tempests, storms, and shipwrecks, he was called Tempesta. His pictures are very rare, and held in great estimation. The name of Pietro Mulier, or de Mulieribus, was given him on account of having caused his wife to be assassinated, in order to marry a young lady of Genoa. But, this villainous transaction being discovered, he was seized, imprisoned, and capitally condemned. However, his great merit as an artist occasioned a mitigation of the sentence; but he was still detained in prison, where he followed his profession, and would have continued there in all probability for life, had he not escaped to Placentia, when Louis XIV. bombarded the city of Genoa, after he had been in confinement sixteen years. To this artist are attributed several very neat prints, executed with the graver only, in a style greatly resembling that of John Vander Velde. They consist chiefly of candle-light pieces and dark subjects.

Molyn (Peter), the elder, a native of Holland, and a painter; but not so eminent nor so infamous as Tempesta. Some suppose the prints above mentioned ought to be ascribed to the latter; as, though very neatly executed, they are labored heavy performances, and not equal in any degree to what one might expect from the hand of an artist of so much repute as Tempesta.

MOLYNEUX (Dr. William), a celebrated mathematician and astronomer, born in Dublin, in 1656. In 1675 he entered in the Middle Temple, where he spent three years in the study of the law; but the bent of his genius strongly tended towards mathematics and philosophy. Returning to Ireland, in 1678, he married Lucy, the daughter of Sir William Domville, attorney-general. Being master of an easy fortune, he continued to prosecute his studies in natural and experimental philosophy, particularly astronomy; and about 1681 commenced a literary correspondence with Flamstead the king's astronomer, which he kept up for several years. In 1683 he formed a design of erecting a philosophic society at Dublin, in imitation of the Royal Society at London; and by the countenance of Sir William Petty, who accepted the office of president, they began a weekly meeting that year, when our author was appointed their first secretary. Mr. Molyneux's reputation for learning recommended

him, in 1684, to the favor of the duke of Ormond, then lord lieutenant of Ireland; by whose influence he was appointed that year, with Sir William Robinson, surveyor-general of the king's buildings, and chief engineer. In 1686 he was sent abroad to view the principal fortresses in Flanders. He travelled with lord Mountjoy through that country, Holland, part of Germany, and France. Upon his return from Paris to London, in April 1689, he published his Sciothericum Telescopium, containing a description of the structure and use of a telescopical dial invented by him. He spent two years with his family at Chester, where he wrote his Dioptrics, dedicated to the Royal Society. Here he lost his lady, who died soon after she had brought him a son. As soon as tranquillity was restored in Ireland, he returned home; and upon the convening of a new parliament, in 1692, was chosen one of the representatives for Dublin. In 1695 he was elected for the University, whom he represented to the end of his life; and that learned body conferred on him the degree of L.L. D. He was likewise nominated a commissioner for the forfeited estates, with a salary of £500 a year; but declined it as an invidious office. In 1698 he published The Case of Ireland stated, in relation to its being bound by Acts of Parliament made in England. Among those with whom he maintained correspondence and friendship Mr. Locke was in a particular manner attached to him, as appears from their letters. In 1698, which was the last year of his life, he went to England, to visit that great man; and soon after his return to Ireland was seized with a fit of the stone, of which he died. He published several pieces in the Philosophical Transactions.

MOMBACA, a kingdom and large town on the eastern coast of Africa, to the south of Melinda. The town was visited by Vasco de Gama in 1497, who was well received, but afterwards an attempt was made to betray him, from which he escaped with some loss. In revenge for this the town was attacked and plundered by Almeda, in 1507. The natives afterwards recovered possession; but in 1529 is was retaken and occupied by the Portuguese till 1631, when the native king, having collected a large force, took it by storm, and put to death all the Portuguese. Since that time the natives have retained possession here, and have treated in the most hostile manner all Europeans. The consequence is, that it is rarely if ever visited. The country is represented as fertile in rice, millet, fruits, and cattle, and the climate as temperate and healthy. It is much frequented by Arab vessels. The town is situated on an island, and defended by a fort.

MOME, *n. s.* } Either Fr. *momom*, a game
MOMMERY. } played in silence; or Belgic *moom*. A dull, stupid blockhead; a stock; a post: an unmeaning show.

Mome, malthorse, capon, coxcomb, idiot, patch!
Either get thee from the door, or sit down at the hatch. *Shakspeare.*

All was jollity,
Feasting and mirth, light wantonness and laughter,
Piping and playing, minstrelsy and masking,
Till life fled from us like an idle dream,
A shew of *mommery* without a meaning. *Rowe.*

MO'MENT, *n. s.* }
MO'MENTALLY, *adv.* }
MOMENTA'NEOUS *adj.* }
MO'MENTANY, }
MO'MENTARY, }
MOMEN'TOUS. } Fr. *moment*; Lat. *momentum*, impulse, or any thing causing motion: hence the smallest motion, and hence, probably, that small particle of time called a moment. Weight; active power; consequence; importance; a small indivisible portion of time: momentally, for a moment: momentaneous, momentany, and momentary, all mean lasting for, or done in a moment: momentous, weighty; important.

We do not find that our Saviour reproved them of error, for thinking the judgment of the scribes to be worth the objecting, for esteeming it to be of any *moment* or value in matters concerning God. *Hooker.*

Small difficulties, when exceeding great good is sure to ensue; and, on the other side, *momentany* benefits, when the hurt which they draw after them is unspeakable, are not at all to be respected. *Id*

What towns of any *moment* but we have? *Shakspeare.*

If I would go to hell for an eternal *moment*, or so, I could be knighted. *Id. Merry Wives.*

Momentary as sound,
Swift as a shadow, short as any dream. *Shakspeare.*

Flame above is durable and consistent; but with us it is a stranger and *momentary*. *Bacon.*

Can these or such be any aid to us?
Look they as they were built to shake the world?
Or be a *moment* to our enterprise? *Ben Jonson.*

Scarce could the shady king
The horrid sum of his intentions tell,
But she, swift as the *momentary* wing
Of lightning, or the words he spoke, left hell. *Crashaw.*

How doth the *momentariness* of this misery add to the misery! what a flower, a vapour, a smoke, a bubble, a shadow, a dream of a shadow our life is! *Bp. Hall.*

Air but *momentally* remaining in our bodies, hath no proportionable space for its conversion, only of length enough to refrigerate the heart. *Browne.*

Touch with lightest *moment* of impulse
His free-will, to her own inclining left
In even scale. *Milton's Paradise Lost.*

The imaginary reasoning of brutes is not a distinct reasoning, but performed in a physical *moment*. *Hale.*

But soft, my friend, arrest the present *moments*;
For be assured they all are arrant tell-tales;
And though their flight be silent, and their path trackless
As the winged couriers of the air,
They post to Heaven, and there record thy folly. *Cotton.*

Swift as thought the flitting shade
Through air his *momentary* journey made. *Dryden.*

Great Anne, weighing the events of war
Momentous, in her prudent heart thee chose. *Philips.*

If any false step be made in the more *momentous* concerns of life, the whole scheme of ambitious designs is broken. *Addison.*

It would be a very weak thing to give up so *momentous* a point as this, only because it has been contested. *Waterl.*

He is a capable judge; can hear both sides with an indifferent ear; is determined only by the *moments* of truth, and so retracts his past errors. *Norris.*

Yet this receiving and returning bliss
In this great *moment*, in this golden now,
When every trace of what, or when, or how,
Should from my soul by raging love be torn.
Prior.

Onions, garlick, pepper, salt and vinegar, taken in great quantities, excite a *momentary* heat and fever. *Arbuthnot.*

It is an abstruse speculation, but also of far less *moment* and consequence to us than the others; seeing that without this we can evince the existence of God. *Bentley's Sermons.*

While I a *moment* name, a *moment's* past;
I'm nearer death in this verse than the last;
What then is to be done? Be wise with speed;
A fool at forty is a fool indeed. *Young.*

Than I, no lonely hermit placed
Where never human footstep traced,
Less fit to play the part;
The lucky *moment* to improve,
And just to stop, and just to move,
With self-respecting art. *Burns.*

I had usually half a dozen or more pieces on hand; I took up one or other, as it suited the *momentary* tone of the mind, and dismissed the work as it bordered on fatigue. *Id.*

'Tis strange that I recal it at this time;
But I have found our thoughts take wildest flight
Even at the *moment* when they should array
Themselves in pensive order. *Byron.*

MOMENTUM, in mechanics, signifies the same with impetus, or the quantity of motion in a moving body; which is always equal to the quantity of matter multiplied into the velocity. See MECHANICS.

MOM'MERY, or MUMMERY, *n. s.* From Fr. *momerie.* An entertainment in which maskers play frolics. See MOME.

All was jollity,
Feasting and mirth, light wantonness and laughter,
Piping and playing, minstrelsy and masking,
Till life fled from us like an idle dream,
A shew of *mommery* without a meaning. *Rowe.*

MOMORDICA, male balsam apple, a genus of the syngenesia order, and monœcia class of plants; natural order thirty-fourth, cucurbitaceæ: MALE CAL. quinquefid: COR. sexpartite; the filaments are three in number: FEMALE CAL. trifid: COR. quinquepartite; style trifid; fruit an apple parting asunder with a spring. The most remarkable species are:—

1. M. balsamina, the male balsam apple, is a native of Asia, and has a trailing stalk like the melon, with smooth leaves, cut into several segments, and spread open like a hand. The fruit is oval, ending in acute points, having several deep angles, with sharp tubercles placed on their edges. It changes to a red or purplish color when ripe, opening with an elasticity, and throwing out its seeds. This species is famous in Syria for curing wounds. The natives cut open the unripe fruit, and infuse it in sweet oil, which they expose to the sun for some days, until it become red, and then present it for use. Dropped on cotton, and applied to a fresh wound, the Syrians reckon this oil the best vulnerary next to balsam of Mecca. It often cures large wounds in three days. The leaves and stems are used for arbors or bowers.

2. M. elaterium, wild or spurting cucumber, has a large fleshy root somewhat like briony, whence come forth every spring several thick, rough, trailing stalks, dividing into many branches, and extending every way two or three feet: these are garnished with thick, rough, almost heart-shaped leaves, of a gray color, standing upon long foot-stalks. The flowers come out from the wings of the stalks: these are male and female, growing at different places on the same plant like those of the common cucumber: but they are much less, of a pale yellow color, with a greenish bottom; the male flowers stand upon thick, short foot-stalks, but the female flowers sit upon the young fruit: which, after the flower is faded, grows into an oval form, an inch and a half long, swelling like a cucumber, of a gray color like the leaves, and covered over with short prickles. The elaterium of the shops is the fruit, or rather the inspissated fæcula, of the juice of the unripe fruit of this species. It is usually sent from Spain and the southern parts of France, where the plant is common, in small, flat, whitish lumps, or cakes, that are dry, and break easily between the fingers. It is of an acrid, nauseous, bitter taste, and has a strong offensive smell when newly made; but these, as well as its other properties, it loses after being kept for some time. It is a very violent purge and vomit, and is now seldom used. From the property which the plant has of throwing out its seeds, with a violent force, upon being touched, it has sometimes been called Noli me tangere.

MOMUS, in mythology, the god of raillery, or the jester of the celestial assembly, who ridiculed both gods and men. Being chosen by Vulcan, Neptune, and Minerva, to give his judgment concerning their works, he blamed them all: Neptune for not making his bull with horns before his eyes, in order that he might give a surer blow; Minerva for building a house that could not be removed in case of bad neighbours; and Vulcan for making a man without a window in his breast that his treacheries might be seen. For his free reflections upon the gods Momus was driven from heaven. He is generally represented raising a mask from his face, and holding a small figure in his hand.

MONA, in ancient geography, an island in the sea, between Britain and Ireland, described by Cæsar as situated in the mid passage between both islands, and stretching out in length from south to north; called Monaæda by Ptolemy; Monapia, or Monabia, by Pliny: supposed to be the Isle of Man.

MONA, another island, between Britain and Ireland, mentioned by Tacitus, more to the south, and of greater breadth, than the above; situated on the coast of the Ordovices, and separated by a narrow strait, an ancient seat of the Druids, now Anglesey. See ANGLESEY.

MONA, and MONITA, i. e. the monkey and his cub, two West India Islands in the middle of the passage between Hispaniola and Porto Rico. The Mona Isle is seven miles from east to west, and nearly two wide, once in good cultivation. It is now abandoned to wild goats, and so seldom

approached, that a sailor has been known to have been six months on it before any passing vessel observed his signals.

MONACO, a principality of the Sardinian states, bounded by the county of Nice, the Genoa territory, and the sea. Its superficial extent is fifty-five square miles; sheltered on the north side by lofty mountains, and open on the south to the Mediterranean. Its climate is of a high temperature, and favorable to the growth of oranges, lemons, olives, &c. The pastures also are good, and the cattle numerous. Inhabitants about 6000. The towns are Monaco and Mentone, containing together about 3000 inhabitants. Monaco, until 1792, was governed by its own princes: in that year the French incorporated it with their republic, and retained possession of it until 1815, when it was placed under the king of Sardinia, reserving, however, the rent of the lands (about £5000 a year) to the prince.

Monaco, a small town, the capital of the above principality, is situated on a steep rock, projecting into the sea. Population 1200. It is seven miles west of Nice.

MO'NAD, *n. s.* } Gr. μονας. An indivisi-
Mo'nade. } ble thing.

Disunity is the natural property of matter, which of itself is nothing but an infinite congeries of physical *monads*. *More.*

MONAGHAN, a county in the province of Ulster, and kingdom of Ireland. It is bounded on the north by Tyrone, on the east by Armagh, on the south by Cavan, and on the west by Fermanagh county. Monaghan comprises 288,500 statute acres, of which 72,855 are exempted from county cess. A loss, in this case, much to be regretted, many of the great landed proprietors being natives and residents of the sister kingdom. The baronies are Cremourne, Dartney, Farney, Monaghan, and Trough, divided into but twenty parishes, averaging about 14,000 acres to each. The population amounts to 174,000; the number of dwellings to 32,000; and the number of children receiving gratuitous education exceeds 7000. The chief towns are Monaghan, the place of assizes, having a jail, a barrack, and an endowed classical school, Ballybay, Clones, Newbliss, Castle-Blaney, Carrickmacross, Smithborough, Emyvale, and Glasslough. The surface of Monaghan is hilly, but not mountainous, save on the north-west angle, where the Sliebh-Raughley range intrudes. There are many small lakes scattered amongst the numerous little eminences that encumber the face of this county, but no river of magnitude except the Blackwater.

Monaghan is not deficient in mineral treasures. Rich lead ore and antimony have been discovered in the elevated lands stretching from Ballybay to Clontibrid; and coal of a good quality at Carrickmacross. The staple of Monaghan is linen cloth, most of the county being devoted to its manufacture: no fewer than fourteen bleach mills exist on one small stream, issuing from an insignificant pool in the high lands. The roads of this county are in general excellent: but one claims particular notice, that is, the great road from Dublin to Derry, which, in passing through this county, has been most skillfully constructed. The funds for this purpose were advanced by government, and are to be repaid by instalments from the grand jury. The parishes of Monaghan, but few in number, are provided with churches, glebe houses, and lands upon a very liberal scale, and the tithes of most of them are now arranged under the commutation act of Mr. Goulburne.

Monaghan, the chief town in the above county, is eighty-four miles distant from Dublin on the new line of road. The streets are wide, and well laid out; the jail is an architectural and well designed edifice; and the diocesan school is an imposing object. This town would undoubtedly derive much benefit from the execution of the proposed canal that is to connect Lough Erne with Lough Neagh.

MON'ARCH, *n. s.* } Fr. *monarch*; Gr. μο-
Mon'archial, *adj.* } ναρχος. A supreme gov-
Monarch'ical, } ernor; a king: to mo-
Mon'archise, *v. n.* } narchise is to assume
Mon'archy, *n. s.* } kingly state: monarchy, the system of monarchical government, or the state governed.

Your brother kings and *monarchs* of the earth
Do all expect that you should rouse yourself.
Shakspeare.

Come, thou *monarch* of the vine,
Plumpy Bacchus, with pink eyne,
In thy vats our cares be drowned. *Id.*

Allowing him a breath, a little scene
To *monarchise*, be feared, and kill with looks. *Id.*

I past
Unto the kingdom of perpetual night.
The first that there did greet my stranger soul,
Was my great father-in-law, renowned Warwick,
Who cried aloud, What scourge for perjury
Can this dark *monarchy* afford false Clarence? *Id.*

That storks will only live in free states is a pretty conceit to advance the opinion of popular policies, and from antipathies in nature to disparage *monarchical* government. *Browne.*

Satan, whom now transcendent glory raised
Above his fellows, with *monarchal* pride,
Conscious of highest worth, unmoved thus spake.
Milton.

The father of a family or nation, that uses his servants like children, and advises with them in what concerns the commonweal, and thereby is willingly obeyed by them, is what the schools mean by a *monarch*. *Temple.*

The *monarch* oak, the patriarch of the trees
Three centuries he grows, and three he stays
Supreme in state, and in three more decays.
Dryden.

With ease distinguished, is the regal race,
One *monarch* wears an open, honest face;
Shaped to his size, and godlike to behold,
His royal body shines with specks of gold. *Id.*

Our author provides for the descending and conveyance down of Adam's *monarchical* power to posterity, by the inheritance of his heir, succeeding to his father's authority. *Locke.*

While the *monarchy* flourished, these wanted not a protector. *Atterbury's Sermons.*

Returned with dire remorseless sway,
The *monarch* savage rends the trembling prey.
Pope.

It is certain, that ours is a mixed government, and the perfection of our constitution consists in this, that the *monarchical*, aristocratical, and democratical forms of government are mixed and interwoven in ours, so as to give us all the advantages of each,

without subjecting us to the dangers and inconveniences of either. *Sir R. Walpole.*

The decretals resolve all into a *monarchical* power at Rome. *Baker's Reflections on Learning.*

A MONARCHY is a state governed by an individual head: or where the supreme power is lodged in the hands of a single person. Of the three forms of government, viz. democracy, aristocracy, and monarchy, the last is the most powerful, all the sinews of government being knit together, and united in the hand of the prince; but then there is imminent danger of his employing that power to oppressive purposes. As a democracy is the best calculated to direct the end of a law, and an aristocracy to invent the means by which that end shall be obtained, a monarchy is most fit for carrying these means into execution.

Of monarchies some are absolute and despotic, where the will of the monarch is uncontrolable; others are limited, where the prince's authority is restrained by laws, and part of the supreme power lodged in other hands, as in Britain. Some monarchies again are hereditary, where the succession devolves immediately from father to son; and others are elective, where, on the death of the monarch, his successor is appointed by election, as in Poland, before its dismemberment. The most ancient monarchy was that of the Assyrians, which was founded soon after the deluge. Historians usually reckon four grand or almost universal monarchies or empires, the ASSYRIAN, PERSIAN, GRECIAN, and ROMAN, of which we treat in their due order, or alphabetical place. The strong resemblance of these four universal empires to the prophetic description of them given by Daniel, under the similitude of four great beasts (an emphatical scriptural expression for the various tyrannies that have prevailed among mankind), and this vision being seen too by the prophet at a time when only the first of them had begun to exercise its tyranny over the world, must satisfy every man of the divine inspiration of that prophet. See Daniel ii., vii., and viii.; *Prideaux's Connexion;* Selden, *De Quatuor Monarchiis*, &c.

MONARDA, Indian horehound, Oswego tea, or American field basil, in botany, a genus of the monogynia order, and diandria class of plants; natural order forty-second, verticillatæ: COR. unequal, with the upper lip linear, involving the filaments: SEEDS four. The most remarkable species is:—

M. zeylanica, a native of the East Indies. It rises with an herbaceous four-cornered, hoary stalk, and bears leaves that are entire, nearly heart-shaped, woolly, deep-notched on the edges, and having foot-stalks. The flowers, which are purplish and fragrant, surround the stalk in whorls, each whorl containing about fourteen flowers; and are succeeded by four small kidney-shaped shining seeds, lodged in the bottom of the permanent flower cup. The Indians superstitiously believe that a fumigation of this plant is effectual for driving away the evil spirit; and from this imaginary property its name, in the Ceylonese language, is derived. Grimmius relates, in his Laboratorium Ceylonicum, that for taste and smell this species of horehound stands remarkably distinguished. A water and subtile oil are obtained from it, both of which are greatly commended in obstructions of the matrix. A syrup is likewise prepared from it, which is useful in these disorders, as well as in diseases of the stomach.

MONARDES (Nicholas), an excellent Spanish physician of Seville, who lived in the sixteenth century, and deservedly acquired great reputation by his skill and writings. His Spanish works were translated into Latin by Clusius, into Italian by Annibal Brigantus, and those upon American drugs have appeared in English. He died about 1578.

MONASTEREVAN, a post town of Ireland, in Kildare, Leinster, thirty-six miles from Dublin. This town has its name from a magnificent monastery which was founded here, in which St. Evan, in the beginning of the seventh century, placed a number of monks from St. Munster, and which was a sanctuary. St. Evan's festival is held on the 22d December. At the suppression of monasteries this abbey was granted to George lord Audley, who assigned it to Adam Loftus, viscount Ely. It afterwards came into the family of Moor, earls of Drogheda, and has been beautifully repaired by lord Drogheda, yet still preserving the venerable appearance of an abbey. The grand canal is carried up to this town from Dublin, since which it has been much enlarged with new buildings. It is a market town, and holds four fairs.

MON'ASTERY, *n. s* } Fr. *monastere;* Lat.
MONAS'TIC, *adj.* } *monasterium.* A re-
MONAS'TICALLY, *adv.* } ligious house or convent: monastic, of or pertaining to such an establishment, or to the habits of a monk.

I drave my suitor to forswear the full stream of the world, and to live in a nook merely *monastick.* *Shakspeare. As You Like It.*

When young, you led a life *monastich,*
And wore a vest ecclesiastick;
Now in your age you grow fantastick. *Denham.*

The silicious and hairy vests of the strictest orders of friers derive the institution of their *monastich* life from the example of John and Elias. *Browne's Vulgar Errours.*

Then courts of kings were held in high renown;
There, virgins honourable vows received,
But chaste as maids in *monasteries* lived. *Dryden.*

In a *monastery* your devotions cannot carry you so far toward the next world, as to make this lose the sight of you. *Pope.*

I have a dozen years more to answer for, all *monastically* passed in this country of liberty and delight. *Swift.*

MONASTERY, is only properly applied to the houses of monks, mendicant friars, and nuns: abbeys, priories, &c., are more properly called religious houses. The houses belonging to the several religious orders in England and Wales were cathedrals, colleges, abbeys, priories, preceptories, commanderies, hospitals, friaries, hermitages, chantries, and free chapels. These were under the direction and management of various officers. The dissolution of houses of this kind began so early as 1312, when the templars were suppressed; and in 1323 their lands, churches, advowsons, and liberties, in England, were given by 17 Ed. II. stat. 3 to the prior and brethren of the hospital

of St. John at Jerusalem. In 1390, 1437, 1441, 1459, 1497, 1505, 1508, and 1515, several other houses were dissolved, and their revenues settled on different colleges in Oxford and Cambridge. Soon after the last period Cardinal Wolsey, by license of the king and pope, obtained a dissolution of above thirty religious houses for the founding and endowing his colleges at Oxford and Ipswich. About the same time a bull was granted by the pope to cardinal Wolsey to suppress monasteries where there were not above six monks, to the value of 8000 ducats a year, for endowing Windsor and King's College, Cambridge; and two other bulls were granted to cardinals Wolsey and Campeius, where there were less than twelve monks, and to annex them to the greater monasteries; and another bull to the same cardinals to enquire about abbeys to be suppressed in order to be made cathedrals. Although nothing appears to have been done, in consequence of these bulls, the motive which induced Wolsey and many others to suppress these houses was the desire of promoting learning: and archbishop Cranmer engaged in it with a view of carrying on the Reformation. There were other causes that concurred to bring on their ruin: many of the religious were loose and vicious; the monks were generally thought to be in their hearts attached to the pope's supremacy; their revenues were not employed according to the intent of the donors; many cheats in images, feigned miracles, and counterfeit relics, had been discovered; the observant friars had opposed the king's divorce from queen Catharine; and these circumstances operated, in concurrence with the king's want of a supply and the people's desire to save their money, to forward a motion in parliament, that, in order to support the king's state, and supply his wants, all the religious houses might be conferred upon the crown which were not able to spend above £200 a year; and an act was passed for that purpose 27 Hen. VIII. c. 28. By this act about 380 houses were dissolved, and a revenue of £30,000 or £32,000 a year came to the crown; besides about £100,000 in plate and jewels. The suppression of these houses occasioned discontent, and at length an open rebellion: when this was appeased, the king resolved to suppress the rest of the monasteries, and appointed a new visitation; which caused the greater abbeys to be surrendered; and it was enacted by 31 Hen. VIII. c. 13 that all monasteries, &c., which had been surrendered since the 4th of February in the twenty-seventh year of his reign, and which hereafter shall be surrendered, shall be vested in the king. The knights of St. John of Jerusalem were also suppressed by the 32 Hen. VIII. c. 24. The suppression of these greater houses by these two acts produced a revenue to the king of above £100,000 a year, besides a large sum in plate and jewels. The last act of dissolution in this king's reign was the act of 37 Hen. VIII. c. 4 for dissolving colleges, free chapels, chantries, &c., which act was farther enforced by 1 Ed. VI. c. 14. By this act were suppressed ninety colleges, 110 hospitals, and 2374 chantries and free chapels. The number of houses and places suppressed from first to last, so far as any calculations appear to have been made, has been estimated at 3182; besides many others of inferior rank, of which no account was kept. The total annual revenue of these is estimated at no less that £140,784 19*s.* 3¾*d*, all of which, besides a vast quantity of silver plate, came into the king's hands. The total number of persons contained in these houses is estimated at 50,000. As there were pensions paid to almost all those of the greater monasteries, the king did not immediately come into the full enjoyment of their whole revenues: however, by means of what he did receive, he founded six new bishoprics, viz. those of Westminster (which was changed by queen Elizabeth into a deanery, with twelve prebends and a school), Peterborough, Chester, Gloucester, Bristol, and Oxford. And in eight other sees he founded deaneries and chapters, by converting the priors and monks into deans and prebendaries, viz. Canterbury, Winchester, Durham, Worcester, Rochester, Norwich, Ely, and Carlisle. He founded also the colleges of Christchurch in Oxford, and Trinity in Cambridge, and finished King's College there. He likewise founded professorships of divinity, law, physic, and of the Hebrew and Greek tongues, in both the said universities. He gave the house of Gray-friars and St. Bartholomew's hospital to the city of London, and a perpetual pension to the poor knights of Windsor, and laid out great sums in building and fortifying many ports in the channel. It is observable, upon the whole, that the dissolution of these houses was an act, not of the church, but of the state; in the period preceding the Reformation, by a king and parliament of the Roman Catholic communion, in all points except the king's supremacy; and an act to which the pope himself, by his bulls and licenses, had led the way. See MONK.

MONASTIR, Toli, or Bistolia, a considerable town of Greece, in Macedon, situated on the slope of a hill; watered by the Vistritza, or Hebrus. It is inhabited by the descendants of Bulgarians; and, though nearly 100 miles from the sea, may, when compared with most other towns in this country, be called rich and commercial. Population 15,000. Ali Pacha took forcible possession of this town, carrying away the most valuable property of the inhabitants; but it is still a flourishing place. It is ninety-five miles W. N. W. of Salonica.

MONAVAR, a town of Spain, in Valencia, twenty miles west of Alicant. It contains 8000 inhabitants, who manufacture some linen.

MONBODDO (James Burnet), lord, an eminent Scottish judge, descended of an ancient family in Kincardineshire. He was born in 1714, and educated at one of the Scotch universities, at a period when an enthusiastic admiration of the classical literature of Greece and Rome was very predominant. Having gone through the usual course of studies preparatory to the profession of a lawyer with uncommon diligence, he was admitted a member of the faculty of advocates in 1737; and, in 1767, was appointed one of the senators of the college of justice; an office which he discharged with assiduity, integrity, and ability. He married Miss Farquarson, by whom he had one son and two daughters, all

of whom died before him, except the eldest, who was married to Kirkpatrick Williamson, esq. He had the offer of a seat in the court of justiciary, but refused it, as its additional duties would have detached him too much from his favorite literary studies. The course of these, and his particular habits of thinking, led him to entertain a most enthusiastic veneration for the wisdom and learning of the ancients, and a proportional degree of contempt for those of the moderns. The first evidence he gave to the public of this admiration of ancient authors was in his work Of the Origin and Progress of Language; the first volume of which was published at Edinburgh in 4to. 1772. This and the subsequent volumes were perused by critics with sentiments of mingled respect, indignation, and ridicule. Together with the philosophical history of language, his plan included that of civilisation and science; upon all of which he advanced opinions equally singular and whimsical. Those who were partial to modern literature, or were strangers to the deeper mysteries of Greek erudition, condemned his lordship's work with the most severe censures. The Scottish literati, almost to a man, declared it to be unworthy of perusal, unless as a piece of amusement from its ridiculous absurdity. In England, however, its reception was somewhat more favorable;

> Ee'n then did Albion's heedless sons submit,
> And Scottish taste decided English wit.

In the late Mr. Harris of Malmesbury lord Monboddo found an admirer and correspondent, who was equally well acquainted with Grecian learning and philosophy, and who had cultivated these branches of science with equal ardor as himself. During the vacations of the court of session lord Monboddo retired every spring and autumn to his seat of Monboddo, where he usually lived in a style of the most primitive simplicity, dressed in the habit of a country farmer, in coarse cloth of Scotch manufacture. Among his tenants he lived familiarly like the kind father of a large family. His patrimonial estate did not afford above £300 a year; yet he never raised their rents, but reckoned the chief improvement of an estate to consist in the increase of the number and happiness of its inhabitants. It was in this patriarchal retreat in the Mearns that he had the pleasure of a visit from the celebrated Dr. Johnson, and his friend Mr. Boswell. To vindicate the honor of the ancients, and the principles of the Grecian philosophy, more fully than he had done in his former work, lord Monboddo published another 4to. volume, entitled Ancient Metaphysics, which was much more favorably received than the former. Naturally endued with a good constitution, which was strengthened by air, exercise, and temperance, he prolonged his life till the eighty-fifth year; and died in Edinburgh on Sunday the 26th May, 1799.

MONCHABOO, a city of the Birman empire, and during a short period its capital, is surrounded by a wall of brick and mud, about twenty feet high by twelve feet thick, and surrounded by a ditch. It is a regular square, of almost 1000 paces on each side. It derives its fame from being the birth place of the emperor Alompra, founder of the reigning dynasty, and is situated fifty miles north of Ummerapoora, and twelve miles north of the Irrawuddy River. Inhabitants 4000. Long 96° 20′ E., lat. 22° 46′ N.

MONCHIQUE, a town of Portugal, in Algarva, at the foot of a ridge of mountains. Population 4800. Fifteen miles west of Silves.

MONCRIF (Francis Augustin Paradis, De), secretary to count Clermont, one of the forty of the French academy, and a member of the academies of Nanci and Berlin, was born in Paris in 1687, and died there November 12th 1770, aged eighty-three. His principal works are, 1. Essai sur la Necessité et sur les moyens de plaire, in 12mo. 2. Les Ames Rivales, a romance. 3. The Abderites, a comedy; 4. Poesies Diverses, and some dissertations, published at Paris 1743, in 12mo. He also cultivated lyric poetry, and wrote, 5. L'Empire de l' Amour, a ballad; 6. Tropheé; 7. Ames reunis, a ballad; and 8. Erosine, a heroic pastoral. 9. L' Histoire des Chats. His works were collected, in 1761, in 4 vols. 12mo.

MONDARDIER, a town of France in the department of the Gard, to the south of Vigan. It consists, in fact, of three adjacent villages. Population 2500.

MONDAY is so called as being anciently sacred to the Moon, or to Mona, the Diana of the Saxons.

MONDEGO, a river of Portugal, in Beira, which rises in the Sierra de Estrella, flowing westward, and falls into the Atlantic at Buarcos. It is navigable to a considerable distance from mouth, and its banks were the scene of important military movements of the British and French in September 1810, and in March 1811.

Mondego, or Embotetieu, a river of Paraguay, in South America, which enters the great river Paraguay, or La Plata, in lat. 20° 30′ S.

MONDOVI, a town and province of Piedmont, situated on the river Ellero. The town at some distance is picturesque in its appearance but loses much of its interest by contrast with the surrounding Alps. It is divided into the Town Proper, or Piazza, situated on a mountain, at an elevation of 1700 feet above the level of the sea, surrounded with feeble walls, and the three suburbs, Carassone, Bred, and Piano della Valle. The distance between the upper and lower part of the town is considerable. Beside a small citadel, Mondovi Proper contains a great number of churches and religious houses, and its inhabitants are chiefly clergy and country gentry. The suburbs, on the contrary, are entirely given to trade. Here are manufactures of woollen and muslin, tanneries and iron forges; but the chief branch of industry is the spinning of silk. The total population is about 20,000. It is the see of a bishop, and of several seminaries. Mondovi is comparatively modern, having been founded in the year 1232. On the 22d of April, 1796, Buonaparte obtained here a victory over the Piedmontese, which led the court of Turin to separate from Austria. In 1799 the Piedmontese peasants assembled here to the number of 40,000, to intercept the retreat of the French, who on a slight

alarm of their attempting to assassinate some officers began an indiscriminate butchery of the people, and pillaged the town. Here Beccaria first drew breath. Fifteen miles E. N. E. of Coni, and forty-five S. S. E, of Turin.

MONDRAGON, a town of Spain, in Guipuzcoa, on the river Deva, thirty miles S. S. W. of Sebastian. Three miles off is a mine of excellent iron and native steel, from which were made the famous sword-blades of Toledo and Salamanca, as well as those so long in repute as blades, and called Ferrara, from the name of the celebrated Andrew Ferrara.

MONETARIUS, or MONEYER, a name which antiquaries and medalists give to those who struck the ancient coins or monies. Many of the old Roman coins have the name of the monetarius, either at length, or at least his initial letters. See NUMISMATOGRAPHY.

MONETARY ART. The object of coinage is commercial *convenience;* in the accomplishment of which the protection of the ignorant and unsuspecting from unfair and fraudulent imitations is the chief, if not the only, difficulty. Direct barter was the first mode of commerce; then various imperfect media received by general consent at a determinate value; and which were often the necessaries of life (see our article COINS); then the precious metals, where they were known, unwrought, as Mr. Turner contends was the case with regard to gold, as a medium of commerce, with our Anglo-Saxon ancestors; then a piece of metal stamped or coined by public authority. It is to be remarked, however, that in commercial affairs considered on a large scale, or as embracing the intercourse of all civilised nations, the last contrivance is not to be regarded as that real progressive step, or improvement, that it truly is with respect to the internal commerce of a nation. That is, the chief object of a good coinage is to mark the genuineness, the ascertained weight and purity, of the money coined; in other words, to bring it back in the public estimation to the penultimate step of commercial media to which we have adverted. What is called the standard of fineness in all the civilised countries of the world is well known to the bullion merchants and other large traders interested in the transactions proceeding between them; and, while the known portion of alloy is used to make the precious metal employed more serviceable as a coin, that very service is in fact only a method of recording the quantity of bullion used; so that the metal, considered as unalloyed and unwrought, is obviously the standard of value. This simple view of the *limits* of the use of coinage we apprehend to be absolutely necessary for the rectification of some serious errors respecting it, which have their advocates in modern times. It is, in fact, as a medium of domestic commerce that coined money is chiefly beneficial, or of any comparative importance to mankind.

We are happy to find so able a judge as Mr. Ruding confirming this view of the subject in the conclusion of his valuable Annals of the Coinage of Great Britain. He adds a further consideration in confirmation of the necessity of limiting our ideas of the application of this art, which cannot be better expressed than in his own words. 'The *theory* of coinage,' he says, 'must be simplified, by casting out of it the consideration of the manner in which our money will be received by neighbouring nations. For they will take it only as bullion, and if the balance of trade be against us, and must be made good by gold and silver; it is most expedient that it should be done by the plain metal, which will cost nothing in the coinage.'

The king of England, as the head of the executive government, has always claimed the prerogative both of coining money, and of regulating the rate at which foreign coin is to be received. Since the reign of Henry VII. our kings have not often exercised this prerogative without consulting parliament, though it appears doubtful whether they have not a legal right so to do: and a royal proclamation is always the instrument whereby (Hale's Pleas of the Crown, vol. ii. p. 197),

Foreign coin is legitimated and made current:

Base coin, or coin of a standard below sterling is legitimated:

To 'inhanse' any coin already current to a higher denomination: and

To decry any coin that is current in usuage or payment.

Blackstone quotes a dictum of Sir Edward Coke, according to which 'the money of England must be either gold or silver;' for at the period when the latter wrote, copper had never been issued by our monarchs. This was first the case in the copper coinage of 1672 under Charles II.

The Anglo-Saxons coined silver and brass; but, the Norman monarchs rejecting the latter, silver became for a long period the sole material of coinage; indeed until gold was introduced into the mint by Henry III. No half-pennies or farthings are known of any of the Anglo-Norman monarchs before Edward I., but silver pieces of this value continued to be coined at intervals from this period until the reign of Edward VI. To supply their place, when their small size caused them to be discontinued, James I. directed farthing tokens of brass and copper to be struck, but these were of such inferior value as soon to fall into utter contempt and disuse. The commencement of the regular copper coinage must be dated in the year above mentioned, viz. 1672.

Tin was also coined by Charles II. in 1684.

His ill-fated successor James II. endeavoured to give currency to metals still less valuable, i.e. gun-metal and pewter; but the projector of a coinage of this description was ruined by the first adventure, and the attempt was not repeated.

The precious metals have been then for ages the chief *materials* of coinage. Of an intrinsic worth, compact, divisible, and durable, they seem by the common consent of mankind to be best calculated for the ordinary purposes of a currency; they possess, however, other properties which become a draw-back upon them. Their value as bullion is perpetually fluctuating; it often varies sufficiently to render the temptation to melt them down irresistible; and it al-

ways affords a considerable inducement to the issuer of counterfeits and the clipper of coin. The first of these disadvantages is perhaps the greatest, as before its mighty influence the greatest part both of our gold and silver coinage is regularly swept away. It results, however, from the intrinsic and inherent value of the materials in question; and as it has been truly observed, 'can only be palliated but not absolutely removed.'

There is only one instance in history of a nation endeavouring to meet this disadvantage of the intrinsic value of a coinage by rendering it useless for other purposes; that is, the well known Spartan one, in which Lycurgus ordered the iron coins to be quenched in vinegar. But this was a failure: it utterly precluded in their case intercourse with the neighbouring states; and the Spartans had no other medium of exchange. This by no means demonstrates, however, the fallacy of the principle on which that great lawgiver acted; especially with relation to internal commerce.

Our article COINS will be found to contain ample tables of all the existing gold and silver money of the commercial world, together with rules for standarding gold and silver. It is admitted throughout the scientific world that we have carried the art of coinage to its highest perfection in this country. The crowns and half-crowns of the Protectorate, for instance, will advantageously sustain comparison with any existing French coins. This has especially been the case since the year 1815, and under the new constitution of the MINT. This we have also exhibited in the article of that name: we therefore propose in this paper to advert briefly to the supply of bullion to that important establishment, and to give as detailed an account of the machinery and methods of the coinage as our limits will admit.

SECT I.—HISTORICAL VIEW OF THE SUPPLY OF BULLION TO THE MINT.

Strabo and Tacitus enumerate gold and silver as among the products of this island; and some writers have conjectured that Roman mints were worked here with the supplies they afforded. This seems to be, however, altogether doubtful. Silver is found only impregnating our lead ores; but the working of mines of either metal has been long unknown to our history: the common law may very harmlessly, therefore, give all mines of these metals, as we believe it does, to the king. But so late as 1 Wil. & Mary some disputes it appears arose which rendered a declaratory statute on this subject necessary. It was at this period therefore enacted that no mines of base metal should be considered as royal, notwithstanding gold or silver might be extracted from them in any quantities; but that the king, or persons claiming royal mines under his authority, should have the ore (other than tin ore in the counties of Devon or Cornwall), paying for the same a price stated in the latter of those acts.—*Blackstone's Commentaries*, vol. I. p. 294.

The earliest instance which Mr. Ruding finds of the claim to a mine royal being enforced occurs in the forty-seventh year of Henry III., at which time a writ was directed to the sheriff of Devonshire, in which it was stated that the king had been given to understand that there were within his county aurifodinæ et cuprifodinæ, that is, mines containing gold together with copper, and he was commanded not to permit any one to occupy the same until the king should have provided that which the law required to be done. His successor Edward I., we are told, received great help towards the maintenance of his wars, and other charges, from the silver mines which, in his days, were found in Devonshire. In the accounts of William de Wymondham, warden of the mint, it appears that, between the 12th of August and the 31st of October, in the twenty-second year of his reign, there was tried and fined out, at Martinstowe in that county, by times, so much of fine silver as amounted to 370 lbs. weight. In the next year £521 10*s*. were fined at the same place, and brought to London.

In the year 1296, 337 miners were brought hither from the Wapentake of the Peak in Derbyshire, who fined and cast into wedges, in the course of that year, £704 3*s*. 1*d*. From September 30th to November 6th in the same year there were received into the mint, from the king's mines, £709 10*s*. 4½*d*.—Mint Accounts in the Exchequer. In the next year 348 miners were brought from the same place, and to them were added twenty-five from Wales, besides others of the county of Devon and other places. William de Aulton, clerk, keeper of the king's mines in Devonshire and Cornwall, was accomptant of the issues and profits of the king's mines there from March 4th 1298 to April 18th 1299, and yielded up his account both of silver and lead; which seems distinctly to prove that the silver was the produce of lead mines rich in that metal.

In the early part of this reign, according to Mr. Ruding, the mines in Ireland which afforded silver were supposed to be sufficiently rich to merit the attention of government. The king, therefore, in a writ directed to Robert de Offerd, justiciary of Ireland, and the bishop of Waterford, his treasurer there, stated that he was certainly informed that mines of silver were found in that country, of which considerable profit might be made, and commanded those persons to cause such mines to be opened and worked, in any way that to their judgment should seem expedient. The mint, however, did not depend solely upon these mines for a supply of metal. From an account of the same William de Wymondham, it appears that foreign bullion was purchased to a considerable amount.

During the reign of Edward II. silver was still brought to the mint from the royal mines, and that which was purchased was distinguished by the names of argentum cismarinum, transmarinum, and billon. These terms continued to be used in the reign of Edward III., after which we do not meet with them. In his twelfth year he granted, and in his fifteenth year confirmed, by statute, free liberty to all persons to dig within their own soil for mines of gold and silver, and for hid treasure, under the inspection of clerks to be appointed for that purpose, on condition

that all the silver so found should be carried to the mint to be coined there, at their cost, and that one-third of the money so struck should remain to the king, and two-thirds to the owner of the soil: and that all the gold should be brought to the exchequer, at their expense, one moiety thereof to be retained for the king's use, and the other moiety to be retained to the said owner of the soil. But if they should neglect to dig for the said mines, &c., then the king and his heirs to have power to do it, without hindrance from any one.

In the eighteenth year of Edward III. is found the first entry of gold, brought into the mint for the purposes of coinage, which remains upon record. It consisted either of foreign coins, or of bullion purchased for the mint, or sent hither by merchants to be coined; but the author of the annals of the coinage has not met with any instance where that metal is entered as the produce of the royal mines.

In the reign of James I. Sir Hugh Middleton discovered those lead mines of Cardiganshire, from which silver has ever since been extracted with some success.

It was discovered at an early period that working mines on the king's account was unprofitable; such as were claimed were therefore, so far back as the fourteenth century, leased out to different persons, reserving certain portions of the produce for the purposes of the mint; sometimes they were obliged to bring the whole thither. Mr. Ruding gives a table too long to extract of these curious transactions.

'In order to facilitate the working of these mines the lessees were sometimes authorised to take a certain number of workmen, wheresoever they should find them, within the county wherein the mines were situated. They had power also over their laborers, &c., to exercise justice in all pleas, except those of land, life, or limb; and if any offended so that they ought to be imprisoned, then the patentees or lessees were authorised to arrest and lodge them in the next jail, there to be detained until they should be released by them. As the claim of the crown respecting mines royal was but ill defined, an attempt was made in the fifteenth year of Charles II. to pass a statute for the purpose of ascertaining it more clearly; but after the bill was read a second time, and the amendments of the committee to which it was referred were reported, it seems to have been dropped, as no farther proceedings are to be found; and the claim remained in its unsettled state, until it was finally determined by the 1st and 5th of William and Mary, which have been already recited.

'But the supply of the mint,' adds this writer, 'with bullion was in early times considered to be a circumstance of too much importance to be trusted to natural means alone; and the aid of *alchymy* was therefore resorted to for that purpose. Thus the gold, of which the nobles of Edward III. were formed, is said to have been produced by Raymond Lully. Ashmole, in his Notes upon Norton's Ordinall, and Hermes Bird, has given a very circumstantial account of the bringing of Lully into England by Cremer, abbot of Westminster; of his agreeing to make the king rich by his art, in consequence of that monarch's promise to enter into a war against the Turks; of his refusal to work any longer, when he found that Edward would not keep that promise; and of his being clapt up in the tower in consequence. The gold, he says, is affirmed (by an unwritten verity) to have been made by Raymond Lully, in the Tower of London; and, besides the tradition, the inscription is some proof; for, upon the reverse is a cross fleury, with Lioneux, inscribed, 'Jesus autem transiens per medium eorum ibat;' that is 'as Jesus passed invisible, and in most secret manner, by the midst of the Pharisees, so that gold was made by invisible and secret art amidst the ignorant.'

'That Edward was, in some degree, a believer in the powers of alchymy, and therefore not improbably the dupe of Lully, will, I think, appear from the following record. The Patent Roll of his third year states, that the king had been given to understand that John le Rous and Master William de Dalby could make silver by art of alkemony; that they had heretofore made it, and still did make it; and that by such making of that metal they could greatly profit the realm: he therefore commanded Thomas Cary to find them out, and to bring them before the king, with all the instruments, &c., belonging to the said art. If they would come willingly, they were to be brought safely and honorably; but, if not, they were to be seized, and brought before the king wherever he might be. All sheriffs, &c., were commanded to assist the said Thomas Carey. This belief in the creation, or, at least, transmutation of metals, was in the reign of Henry IV. so firmly established, that we find in his fifth year a statute which solemnly 'ordained and established that none from henceforth shall use to multiply gold or silver, nor use the craft of multiplication; and if any the same do, that he incur the pain of felony in this case.

'In consequence of the restraint which this statute imposed upon the operations of alchymy, John Cobbe, in the twenty-second year of Henry VI. presented a petition to the king, in which he stated, that he was desirous of operating upon certain materials, by art philosophical, viz. to transubstantiate the inferior metals, by the said art, into perfect gold and silver, so as to endure every trial; but that certain persons had suspected this to be done by art unlawful, and therefore had power to hinder and disturb him in giving proof of it. His majesty, having considered the premises, and being willing to see the conclusion of the said operation, granted, of his special grace, license to the said John to practise the said art in future, without molestation from any of his officers; provided always that it was not contrary to law. Soon after this, however, his majesty's curiosity became too impatient to endure the restraint of statutes, and he granted licenses of the same kind to various persons to carry on their operations, notwithstanding any statute, act, ordinance, or provision to the contrary.

In his thirty-fifth year he appointed, by letters patent, commissioners to enquire into the truth of this art, by the professors of which he had

been promised wealth sufficient to pay all his debts in gold and silver, to the great advantage of the kingdom. The commissioners were not selected with any particular attention to their qualifications for such a scrutiny; for they consisted of Augustine and preaching friars, of the queen's physician, the master of St. Laurence Pontigny college, an alderman of London, a fishmonger, two grocers, and two mercers. Their report does not appear; but, without doubt, it was favorable to the art, as another license to practise it is found in his thirty-ninth year. This differs from those formerly granted, in being for the term of two years only, whilst the others were unlimited. Notwithstanding the disappointments which must have been perpetually experienced from the professions of those alchymists, it is certain that a reliance on the powers of their art continued as late as the seventeenth year of Edward IV.

Notwithstanding the importance of the subject the mint accounts seem to have been strangely neglected, even in comparatively modern times. Our annalists could only find data in the exchequer extending from the reign of Henry III. to the eleventh of Henry VIII. respecting the supply of bullion. Latterly one great and growing corporation, the bank of England, has become the sole customer of the mint: in return for the benefit derived from its charter that establishment is charged with the duty of 'providing, except during the suspension of payments in cash, all the gold and silver used in the coinage of money.'

Sect. II.—Of the Methods and Machinery of the Mint Coinage.

The bullion brought into the mint has for a long period been regularly assayed, and reduced to standard an account of which is given (see our article Mint), to the parties bringing it in; and then formed into money.

The first, and long-continued, mode of coinage was by the hammer; the blank piece of metal being placed by hand between two dies, or steel punches, containing the design of the coin, and the upper one being struck with a hammer. This operation was always imperfect, from the uncertainty of placing the dies exactly over each other; and also from the difficulty of striking a blow with such force as to make all parts of the impression equal. Hammer money, however, continued to be current until the reign of William III., when it was found in a most wretched condition from clipping and other mutilations, although the plan of coining, by the screw or press, had been introduced from France as early as 1562. But the press did not continue in use more than ten years, as being considered too expensive: there was a prejudice also against it as a foreign invention. In 1662 the use of the hammer was, however, finally relinquished: the milling upon the edges of coins was introduced about this period, and great confidence was placed in this new device, as being supposed to secure the coin both from clipping and wearing. But it was quickly discovered that the new money, both of gold and silver, could be deteriorated by a process termed sweating, or by abstracting a portion from the whole surface by an acid, which left few or no traces of its operation. The coins were also clipped and filed as before and a new milling impressed upon it, notwithstanding every effort of the mint to keep the process of milling a secret. We believe the officers concerned in this process are still sworn not to disclose it.

The fly coining-press, or mill, is an invention generally ascribed to Antonie Brucher, the French king's engraver in 1553. After about thirty years use of it, in the royal mint of Paris, it was abandoned for the same alleged reason of expense that queen Elizabeth resigned it for; and remained in disuse until early in the following century, when Briot, a French engraver, induced the English government again to have recourse to this machine, and was made, in 1623, engraver to the tower mint. It seems to have been used with the hammer, and at intervals only, until the year 1662, when Charles II. introduced the last important regulations of the mint, prior to its late new constitution. At the same period he took upon the government the whole expense of the coinage of money.

An extensive silver coinage in king William IIId's reign was executed at several country mints, besides the mint at the Tower. The principle of this coinage was a subject of great controversy between the celebrated Mr. Locke, Mr. Lowndes, and others. The latter proposed to regulate the coinage by the existing market price of silver; although that price (exceeding its mint price) arose from the deficiency in the weight of those coins by which silver and all other commodities were bought and sold. Mr. Locke perceived this, and contended that if the coinage were executed at a higher rate than the standard of the 46th of Elizabeth, or 5*s.* 2*d.* per ounce, it would be done at the expense of justice and integrity between the government and the people, and this noble argument prevailed.

In September 1717 Sir Isaac Newton delivered in a report to the lords of the treasury, giving it as his opinion that gold was considerably overrated in the mint with respect to silver: in consequence of this the guinea was, by proclamation dated the 22d of December, 1717, declared current at 21*s.*, which has ever since been its standard value. The price of gold now became fixed at £3. 17*s.* 10½*d.* per ounce at the mint.

In 1774, and subsequent years, there was a general recoinage of the gold currency; the object of which was stated to be a reformation of the light and defective coins then in circulation; £4 in fact of the gold coin then abroad would not weigh more than an ounce; and this, according to the bank accounts, was the market price. The holders of bank notes demanding new and heavy coins for them, required the bank to have a large coinage of gold to supply this demand. The coins were therefore melted, and sold in the state of bullion to the bank for £4 per ounce; to remedy which the recoinage was completed. It had the effect desired, Mr. Mushet tells us; for the price of gold, for upwards of twenty years, never exceeded, but was rather under, its mint price.

A committee of the privy council ordered to

take into consideration the state of the coins in 1798, being desirous to ascertain whether that loss was occasioned by any defect, either in the quality of standard gold, or in the figure or impression of the coins, requested Mr. Henry Cavendish and Mr. Hatchett to examine, by such experiments as should be deemed requisite, whether any of those defects really existed.

The two following questions were principally recommended to their consideration:—

'1st. Whether very soft and ductile gold, or gold made as hard as is compatible with the process of coining, suffers the most by wear, under the various circumstances of friction to which coin is subjected in the course of circulation?

'2d. Whether coin with a flat, smooth, and broad surface, wears less than coin which has certain protuberant parts raised above the ground or general level of the pieces?'

From a set of well contrived experiments, which were extended to a considerable length, it appeared that gold of moderate ductility is best calculated for coin, and that the quality of the present standard gold is well adapted to resist abrasion, especially in the case of the friction of coin against coin; and that the wear is greater upon raised or embossed surfaces than upon those which are flat and plain. The wear of standard silver appeared to be nearly equal to that of fine gold; but more than that of gold made standard by silver or by copper.

In the course of this year the officers of the mint repeated the experiments which they had made in the year 1787, respecting the actual wear of the silver coins, from which it appeared that a considerable loss had been occasioned by the wear of eleven years only; for it was found that

$12\frac{33}{40}$ Crowns,
$27\frac{7}{20}$ Half crowns,
$82\frac{9}{40}$ Shillings,
$200\frac{37}{40}$ Sixpences,

were requisite to make up a pound troy, instead of

$12\frac{16}{40}$ Crowns,
$24\frac{33}{40}$ Half crowns,
62 Shillings,
124 Sixpences,

as issued from the mint.

This deficiency amounted in the

Crowns to $3\frac{161}{512}$ per cent.
Half crowns $9\frac{291}{1101}$ per cent.
Shillings $24\frac{1254}{3240}$ per cent.
Sixpences $38\frac{7224}{6037}$ per cent.

and the increased deficiency in the course of eleven years,

In the Crowns to $\frac{109}{512}$ per cent.
In the Half crowns to $1\frac{333}{387}$ per cent.
In the Shillings to $5\frac{53}{3240}$ per cent.
In the Sixpences to $31\frac{1159}{6037}$ per cent.

Details of the more modern coinage do not properly belong to this paper: we proceed to observe that the old machinery in use at the mint, prior to the great alterations introduced by Mr. Boulton, were, 1. The rolling mill, for reducing the plates of metal to a proper thickness. 2. The cutting machine, for punching them into a proper size. 3. The milling machine: and, 4. The coining press, properly so called.

Mr. Boulton first became connected with the mint in consequence of his undertaking an extensive copper coinage for government in the year 1799. This he executed at his own works at Soho, near Birmingham: he was afterwards employed to re-stamp, without melting, a large quantity of Spanish dollars; and after the governments of France, Russia, and Denmark, as well as the East India Company, had availed themselves of his scientific apparatus, he was called upon to furnish the principal machines of the new mint, established on Tower Hill, in 1811.

We may first describe the new *rolling press*, erected, we believe, by J. Rennie, esq. This machine is for the purpose of laminating or rolling the bars of metal, whether of gold or silver, into a proper thickness for the cutting-out mill. Those of gold are rolled cold, and can be reduced from an inch thick to the thinness of half a sovereign, without being annealed. The silver bars are rolled when heated to redness, in a reverberatory furnace.

Figs. 1 and 2, plate I., MONETARY ART, are the rollers exhibited in a sectional view, and in a perspective view of one roller. U and L are the upper and lower rollers; S S the standards of a cast-iron frame in which they are fixed, by bearing brasses, regulated by the screws Q Q. Each of these screws has a cog-wheel fixed on the upper end of it, turned by worms, fixed on a common axis, by the handle shown in front. This handle raises or lets fall the upper roller, but always in a parallel direction to the lower one. The standards being bolted down to the cast-iron sills, O O, the latter are embedded in the masonry beneath.

The moving power of this machine is steam, and is received by the large wheel W, which moves the long shaft F F, connected by cogs with the smaller wheels L and K, which turn the upper roller. R, R, are sockets by which the shafts are joined, and which admit a little yielding when the roller is moved upwards. The wheels I, J, also fixed on the shaft N, turn the lower roller, being connected by an intermediate wheel applied on one side, and which operates so that the two rollers U and L, are turned in opposite directions.

Fig. 2 needs little description; but it more fully exhibits the chief parts of each roller: the metal is introduced on the table T. Fig. 3 is a steel gauge, or pair of rulers, used for ascertaining the exact thickness to which the metal is reduced by the operation of rolling, and which is marked by the degree to which it will allow them to open upon it.

The planchet, or *cutting-out* mill, i. e. that which cuts the metal to its right width after it comes from the rolling mill, is exhibited in plate II., fig. 1. A A is the frame work of the machine, attached to a strong sill, and connected by a wheel, W, with the shaft F of the rolling mill. C and D are two cog wheels moving the circular shears S, S, between which is conducted the rolled plate of metal at E; and G is the guide of

the width to which it is cut, which, in the silver coins, is generally double that of the coin wanted.

When thus cut, the planchets were until lately subjected to a second rolling, to give them more exactly the thickness required in the coin: this was accomplished by a finishing rolling machine, made tighter by wedges and screws; and altogether a very clumsy contrivance. Of late, Mr. Barton, comptroller of the mint, has brought into use a far more accurate mode of effecting the object in view, by drawing the slips of metal between dies, in the manner of drawing wire. This has produced a uniformity in the thickness, of great practical consequence, and reduced the remedy on gold coin from forty to twelve grains troy. We regret that it is too complicated for description in this place.

The *blank* cutting out press is now resorted to; and twelve of these are fixed round an immense wheel, turned by steam, and having a large regulating fly on its own axis. The whole of the presses are fixed on a circular stone basis, and form a handsome colonnade, in a circular room of the mint: they operate so simply and uniformly that boys are employed to feed them.

Each press resembles, in appearance, the common fly press, used to take seal and other impressions, and is worked on the principle of a weight used as a fly. F F is the iron framework, supporting the action of the screw S, which terminates in a steel punch, P, fitting exactly into the die underneath it: to the punch is attached a circular piece of iron, which holds down the metal when the punch rises from it. On G, at the top of the screw, is fixed the arm A, furnished with a weight at one end, and striking at the other against a wooden spring which checks the motion after a stroke: Above this is seen a spindle, B, connected with another arm which consists of two parts. D E is immediately operated upon by the tooth, or large cog, C, of the immense wheel of which we have spoken, and of which a portion is shown in fig. 3: that is, the cog of this wheel impinging on E produces the stroke which turns the screw and lifts up the punch from the die. At H is a rod connected with this upper lever by a joint; the other end of the rod being connected with a bended lever, shown in fig. 4, from the other arm of which descends a rod with a piston affixed to it. This piston moves in a close cylinder, and, when drawn up, creates a vacuum; when the pressure of the atmosphere causes a reaction, and the moment the other end E escapes, or slips from the tooth T of the great wheel, the reaction of the piston draws the joint H back, and makes the screw turn round in that direction, which causes the punch to penetrate the die. To stop the machine a catch rises up and hooks the lever, so that it cannot return.

I, fig. 4, is moveable on a joint L and thrown upwards by a spring seen underneath. To this spring a cord N is fastened, which the boy who feeds the machine works by a common treadle. The air cylinders mentioned are contained in hollow pilasters, which seem to sustain the dome at the top of the apartment.

The blanks thus cut are, if needful, finely rectified as to weight by filing; but this, according to the improved process, is now often not needed: and the pieces are now ready for milling. This operation is not shown in our mint, but has been thus described by a gentleman connected with it. Two steel bars or rulers, having their adjacent edges cut or fluted, are placed parallel to each other, and the piece of money is made to run on its edge between them. One bar is immoveable, being fastened down by clamps to a cast-iron plate, forming the base of the machine; the other bar is prevented from rising, but has the liberty of moving backwards and forwards in the direction of its length.

The *coining-press*, properly so called, and the most ingenious and important of the whole series of machines, is shown in perspective in Plate III. F F is the frame work, screwed by bolts on a basis of stone. S S the screw, on the top of which is seen the fly A B, the whole being moved by the spindle connected with a moving power in an upper apartment. The weights at the extremities of the arms of the fly are limited in their motion, by cheeks affixed to iron beams, E and F, extending from one column to the other: these are made very strong; the columns are of oak. The recoil of the fly, after having struck a coin, is checked by its coming against a piece, G, fitted into the tube H, fixed to the iron beam E, and having a concealed spring to ease the blow. The upper moveable die is beneath the screw; and turns round with it whilst making the impression. The screw is cylindrical at each end, and is fitted in very accurate bearings, adjustible by screws above and below; between these it is cut into a worm or screw, and is received in a proper nut, but it depends on this only for its ascent and descent, the fittings at the ends keeping it vertical. The coin is therefore struck with a twisting motion which is supposed to give it a better impression.

The blanks are placed in this machine by a set of very ingenious contrivances: we can only show their general appearance at T, where a sliding pair of tongs takes in the small tube into which the blanks are put, ten or twelve at once, and takes them away one at a time. The lever L is furnished with a joint near the lower end, and two springs, which act in the same manner as the springs in the back of a knife, to keep it straight, and carry the tongs forward; but, if any obstruction arises, the lever bends. The centre of the lever is adjustable to regulate the length of its motion by a sliding centre, fitted upon a vertical bar.

We have thus described the principal machines used at the mint in the art of coining, properly so called. Those for reducing the silver to proper ingots are also very creditable to the establishment; but our limits prevent us from entering into a particular account of them. On the whole we apprehend that while important ends of public security, and the defence of the ignorant from imposture, are answered by the monopoly of this art by government, it would receive great improvement in private hands; and has, at the present time, its due share of multiplied offices and machinery about it, compared to what we should find in case it were pursued for private emolument. For the trial of the pix, see PIX.

MON'EY, *n. s.*
MON'EYBAG,
MON'EYBOX,
MON'EYCHANGER,
MON'EYED, *adj.*
MON'EYER, *n. s.*
MON'EYLESS, *adj.*
MON'EYMATTER, *n. s.*
MON'EYSCRIVENERS,
MON'EY'SWORTH.

Sax. mynet; French *monnoye*; Lat. *moneta*. Coined metal: moneyed is rich in money, or affluent: moneyer either a dealer in, or coiner of money: moneyless, pennyless; poor: money'sworth, something valuable, or that will bring money: the other compounds do not seem to require explanation.

But petir seide to him the *money* be with thee into perdicioun, for thou gessidist the ghifte of god schulde be had for *money*. *Wiclif. Dedis.* 8.

I will give thee the worth of it in *money*.
1 *Kings* xxi. 2.

Importune him for *monies*: be not ceast
With slight denial.
Shakspeare. Timon of Athens.

The jealous wittolly knave hath masses of *money*.
Shakspeare.

You need my help, and you say
Shylock, we would have *monies*. *Id.*

Look to my house; I am right loth to go;
There is some ill a brewing towards my rest,
For I did dream of *moneybags* to night. *Id.*

Invite *moneyed* men to lend to the merchants for the continuing and quickening of trade. *Bacon.*

Wives the readiest helps
To betray heady husbands, rob the easy,
And lend the *monies* on return of lust.
Ben Jonson.

He that gives alms that he may keep his lust, loses his soul and his *money* too. *Jer. Taylor.*

There is either money or *money'sworth* in all the controversies of life; for we live in a mercenary world, and it is the price of all things in it.
L'Estrange.

Money differs from uncoined silver, in that the quantity of silver in each piece of *money* is ascertained by the stamp it bears, which is a publick voucher. *Locke.*

If exportation will not balance importation, away must your silver go again, whether *moneyed* or not *moneyed*; for, where goods do not, silver must pay for the commodities you spend. *Id.*

My discourse to the hen-pecked has produced many correspondents; such a discourse is of general use, and every married man's *money*.
Addison.

My place was taken up by an ill-bred puppy, with a *moneybag* under each arm. *Id. Guardian.*

The usurers or *moneychangers* being a scandalous employment at Rome, is a reason for the high rate of interest. *Arbuthnot.*

What if you and I, Nick, should enquire how *moneymatters* stand between us? *Id.*

Suppose a young unexperienced man in the hands of *moneyscriveners*; such fellows are like your wire-drawing mills, if they get hold of a man's finger, they will pull in his whole body at last.
Id. History of John Bull.

People are not obliged to receive any *monies*, except of their own coinage by a public mint.
Swift.

Those hucksters or *money* jobbers will be found necessary, if this brass *money* is made current in the exchequer. *Id.*

Several turned their *money* into those funds, merchants as well as other *moneyed* men. *Id.*

The strong expectation of a good certain salary will outweigh the loss by bad rents received out of lands in *moneyless* times. *Id.*

Shall I withhold a little *money* or food from my fellow creature, for fear he should not be good enough to receive it from me? *Law.*

See what *money* can do; that can change
Men's manners; alter their conditions!
How tempestuous the slaves are without it.
O, thou powerful metal! what authority
Is in thee! thou art the key of all men's
Mouths. *Broome.*

Money and time are the heaviest burthens of life, and the unhappiest of all mortals are those who have more of either than they know how to use.
Johnson.

MONFALONT, or MOMFLOT, a large town of Upper Egypt, on the left bank of the Nile, about a mile from the river, is well built, and carries on an extensive commerce in grain. There is also a very large cloth manufactory here. On the opposite side of the Nile is a spacious Coptic monastery, surrounded with high walls, the entrance to which is by a basket drawn by pulleys: it is called the Convent of the Pulley. Long. 31° 36′ E., lat. 27° 42′ N.

MONFIA, a low island off the eastern coast of Africa, to the south of Zanzibar. It is nearly 100 miles in length from north to south, but seldom more than eight or ten in breadth. The surface is fertile; but it is little frequented. Lat. 7° 30′ S.

MONGAULT (Nicholas Hubert), an ingenious and learned Frenchman, and one of the first writers of his time, born in Paris in 1674. At sixteen he entered the congregation of the oratory, and was afterwards sent to Mans to learn philosophy. Although that of Aristotle was then the only one permitted to be taught, Mongault, with that spirit which usually distinguishes men of abilities, ventured in a public thesis to oppose the opinions of Aristotle, and to maintain those of Descartes. Having studied theology with the same success, he quitted the oratory in 1699; and soon after went to Thoulouse, and lived with archbishop Colbert, who had procured him a priory in 1698. In 1710 the regent duke of Orleans committed to him the education of his son the duke of Chartres. In 1714 he had the abbey of Chartreuse given him, and that of Villeneuve in 1719. The duke of Chartres, becoming colonel general of the French infantry, appointed Mongault secretary general; made him secretary of the province of Dauphiny, and raised him to other considerable employments. In 1714 he published in Paris, in 6 vols. 12mo., an edition of Tully's Letters to Atticus, with an excellent French translation, and judicious comment. In this work he has happily illustrated many passages which the interpreters before him had given up as inexplicable. He published also a very good translation of Herodian from the Greek; the best edition of which is that of 1745, in 12mo. He died at Paris in 1746. He was a member of the French academy, and of the academy of inscriptions and belles lettres.

MONGE (Gaspar), a celebrated French mathematician and philosopher, was born at Beaune in 1746, and studied under the fathers of the oratory at Beaune and Lyons. He became a teacher at the age of sixteen, and was soon after employed at the military school of Mezieres, as assistant to Bossut the professor of mathematics,

and to Nollet, professor of physics, whom he succeeded. He removed in 1780 to Paris, on being admitted into the Academy of Sciences, and became the coadjutor of Bossut, in a course of lectures on hydrodynamics. Quitting Mezieres finally in 1783, he composed a Treatise on Statics, afterwards used for the Polytechnic school. Through the influence of Condorcet, he was made minister of the marine in 1792, and held the portfolio of minister of war during the active service of general Servan. As a member of the executive council of government, he disgraced himself by signing the order for the execution of Louis XVI., and shortly after resigned. He was now engaged, with other men of science, in improving the manufacture of gunpowder. When the Normal School was founded, with which he became connected, he published his Geometric Descriptive. He also principally contributed to the establishment of the Polytechnic school; after which, in 1796, he was sent into Italy, to collect, or more properly speaking to plunder, the treasures of art and science from the countries conquered by the republic. In 1798 he accompanied Buonaparte to Egypt; on his return he resumed his functions as professor at the Polytechnic School, in the success of which he greatly shared; while the attachment which he manifested to Buonaparte led to his being nominated a member of the senate. The emperor also bestowed on him the title of count of Pelusium, the senatorial lordship of Liege, and an estate in Westphalia. He was a grand cordon of the legion of honor, and, a little before the Russian expedition, received a present of 200,000 francs. On the fall of his benefactor he was expelled the Institute and deprived of all his employments. On this he is said to have become disordered in his faculties, and died July 28th, 1818. Besides the above work, Monge published Description de l'Art de fabriquer les Canons, 4to.; and Application de l'Analyse à la Geometrie des surfaces, 4to.; as well as various memoirs on mathematical and physical science.

MON'GER, *n. s.* Sax. mangere, a trader; from Sax. mangian, to trade. A dealer; seller; and sometimes a meddler in any thing. A word seldom or never used alone, or otherwise than after the name of a commodity to express a vender of that commodity: as, a fishmonger; a newsmonger, &c.

Whore-*mongers* and adulterers God will judge.
Heb. xiii. 4.

Do you know me?—Yes, excellent well, you are a fish-*monger*. *Shakspeare.*

Neither did his departed soul want, somewhere, as is reported, suffrages and oblations of mass-*mongers* in this behalf. *Bp. Hall.*

The impatient states-*monger*
Could now contain himself no longer.
Hudibras.

MONGHIR, a considerable and well cultivated district of Bahar, Hindostan, situated between 26° and 28° of N. lat. To the north it is bounded by Tyrhoot and Purnah; on the south by Ramgur and Birbhoom; to the east by Rajemal and Birbhoom; and to the west by the Bahar district and Ramgur. In 1784 this district, in all its dimensions, contained 8270 square miles, of which only 2817 are in the Boglipoor division on both sides of the Ganges.

Monghir seems formerly to have been inhabited only by Thudufarkers, of the class denominated Rick, who resided in the woods. One of these whose, habitation was upon a rock in the Ganges, is said, with the assistance of Vishwa Karma, the god and patron of artists, to have built a fort, and named it Monghir. The country is described as being at that time a complete uncultivated jungle, containing a temple dedicated to the goddess Chandi. The district is now one of the best cultivated in the Company's dominion. The fields in the neighbourhood of the town are divided into squares, and cultivated with great care. They produce a great variety of leguminous plants, mustard seed, castor oil, opium, and various grains.

In this district is now a hot-well, named Seetacoond, situated about half a mile from the banks of the Ganges, in a plain backed by hills and rocks. The spring is considerable, and the water is too hot to admit keeping the hand long in it, yet there are cold springs on the sides, at the distance of about twenty paces. In 1801 the inhabitants of the Monghir, or Boglipoor district, were estimated at 600,000.

MONGHIR, a town and fortress of Bahar, situated on the south bank of the river Ganges, in lat. 25° 23′ N., long. 86° 38′ E.

The fort, which is of great antiquity, is large, surrounded by a wall and deep ditch, and most beautifully situated on the Ganges, which, in the rainy season, forms here a prodigious expanse of water. It was the chief residence of sultan Sujah during his government of the Bengal province. Subsequently it became the residence of Cossim Ali Khan, at the time he intended to throw off all dependence on the English. He added considerably to the fortifications, but it was taken by the English after a siege of nine days. The point of the rock at this place, which withstands the whole force of the Ganges, is considered as a sacred bathing place, and during the season the crowd here is prodigious. The place is at present occupied by invalid sepoys, their commandant having possession of the ruins of the palace.

Travelling distance from Monghir to Calcutta, by Birbhoom, 275 miles; by Moorshedabad, 301 miles.

MONGOLIA, a region of Central Asia, north and north-west by China, and situated between that empire and Asiatic Russia. Its limits are vague, and the country is only traversed by the wandering hordes of Mongols, or Moguls, who have been so celebrated in the annals of Asia. At present they have lost all settled dominion, and are split into a number petty states, dependent upon Russia or China. The proper limits of Mongolia are, to the east, the country of the Mantchous; to the west, the mountains continued northwards from the Beloor and the lake Palcati Nor; to the west of this is the country of the Tartars; on the south Mongolia is bounded partly by China, and partly by Turkistan. Nearly the whole of this immense territory consists of a level plain, which borders on the Altai, and other mountain chains that form the Russian

frontier. It includes a considerable part of the desert of Shamo, or Cobi; the habitable part is composed entirely of pasturage. The chief vegetable produce is rhubarb. In this region rise some of the greatest rivers of Russia and China, the Hoangho, the Amour, and even the Irtysch; but scarcity of water is a common want here. The inhabitants are distinguished decidedly from both the Turks andTartars. They are muscular and strongly built; of middle size; their faces square, broad, and flat; their noses particularly low, and their eyes oblique, small, and dark. They have thick lips, a short chin, little beard, and large ears. Their black and strong hair is almost wholly shaven off, except a tuft on the crown. The common dress consists of sheep or lambs' skins, with the wool inwards, which retain a scent which is perceptible at some distance. The rich wear cotton lined with skins. Their food consists entirely of milk and flesh, and they esteem horse-flesh a delicacy. Their favorite liquor is fermented mare's milk, or kounuss. Their tents are composed of a thick, gray, or white felt, of a conical form, with a hole at the top. They use tea, mead, and tobacco; but their horses are their pride, and they are peculiarly expert in training them. These horses are in general small, but some of them would be considered handsome in Europe: their sheep are of that species common throughout Tartary, distinguished by large tails. The country abounds in deer and other game, particularly wild horses and mules, and animals of the elk and lynx species. A few sables are found, though not of great beauty. The internal government is here carried on by native princes, called khutuktus, or regulos, who, at the time of the last conquest, were divided into forty-nine standards or tribes. Tribute to any power is the extent of their allegiance; but in many cases, instead of paying, they receive it. They are rude, but frank and hospitable, gay and cheerful, and spend a considerable part of their time in sports and exercises. Polygamy is permitted, but little practised. They have national songs and music, but the latter is said to be very disagreeable. They profess the religion of Fo, and have resident among them Lamas, who pretend to the gift of immortality, and are held in the highest reverence by the people, while, however, they are very many of them unable even to read. The doctrine of the transmigration of souls is an established part of their creed. Besides the Mongols proper a number of other nations are found here, of which the principal are the Kalkas and the Eluths. The Buriats of Asiatic Russia are of Mongol origin.

MON'GREL, *adj.* Sax. mang; Belg. *mengen*, to mix. Of a mixed breed: written also mungrel.

This zealot
Is of a *mongrel*, divers kind,
Clerick before, and lay behind.
Hudibras.

Ye *mongrel* work of heaven, with human shapes,
That have but just enough of sense to know
The master's voice. *Dryden's Don Sebastian.*

I'm but a half-strained villain yet,
But *mongrel* mischievous. *Dryden.*

Base, groveling, worthless wretches;
Mongrels in faction; poor faint-hearted traitors.
Addison.

His friendships, still to few confined,
Were always of the middling kind;
No fools of rank, or *mongrel* breed,
Who fain would pass for lords indeed.
Swift's Miscellanies.

And in that town a dog was found,
As many dogs there be,
Both *mongrel*, puppy, whelp, and hound,
And curs of low degree. *Goldsmith.*

MONJOUS, a people of Eastern Africa, in the interior, north-easterly from Mosambique. They appear to occupy but a small territory, and the only authentic account we have of them, is from a caravan with slaves, ivory, &c., which arrived at Mosambique in 1809, during Mr. Salt's residence there. The distance of their country from the coast is conjectured by the time which the caravan had employed in traversing it, i. e. about two months; but, as a considerable period had been spent in rest, the real travelling period was only forty-five days, which, at fifteen miles a day, would give between 600 and 700 miles. This people are said to be black negroes of the ugliest description, with high cheek bones, thick lips, and small knots of woolly hair. Their weapons are bows and arrows; and they have a mode of exciting flame by rubbing two pieces of hard wood against each other, similar to that described by Bruce, as practised by a tribe near Sennear. They appeared milder than the same tribes in the neighbourhood of Mosambique.

MON'ISH, *v. a.*
MON'ISHER, *n. s.*
MONIT'ION,
MONIT'OR,
MON'ITORY, *adj.* & *n. s.*
} Latin *moneo*. To advise; admonish; correct: monition is advice; hint; information: a monitor, one who gives hints or advice, or who informs or minds of a duty: monitory, conveying instruction or admonition: also the instruction or admonition conveyed.

And sithe that she and I accorde
Have upon him misericorde,
For I you praie, and eke *moneste*,
Nought to refus in our requeste. *Chaucer.*

Monish him gently, which shall make him both willing to amend, and glad to go forward in love.
Ascham's Schoolmaster.

You need not be a *monitor* to the king; his learning is eminent: be but his scholar, and you are safe.
Bacon.

A king of Hungary took a bishop in battle, and kept him prisoner; whereupon the pope writ a *monitory* to him, for that he had broken the privilege of holy church. *Id.*

We have no visible *monition* of the returns of any other periods, such as we have of the day, by successive light and darkness. *Holder on Time.*

We can but divine who it is that speaks; whether Persius himself, or his friend and *monitor*, or a third person. *Dryden.*

Unruly ambition is deaf, not only to the advice of friends, but to the counsels, and *monitions* of reason itself. *L'Estrange.*

Losses, miscarriages, and disappointments, are *monitory* and instructive. *Id.*

The pains that come from the necessities of nature are *monitors* to us to beware of greater mischiefs.
Locke.

It was the privilege of Adam innocent to have these notions also firm and untainted, to carry his *monitor* in his bosom, his law in his heart, and to have such a conscience as might be its own casuist. *South's Sermons.*

He is so taken up still, in spite of the *monitory* hint in my essay, with particular men, that he neglects mankind. *Pope.*

Then after sage *monitions* from his friends,
His talents to employ for nobler ends,
He turns to politicks his dangerous wit. *Swift.*

MONK, *n.s.* MONK'ERY, MONK'HOOD, MONK'ISH, *adj.* } Sax. monec; Lat. *monachus*; Gr. μοναχος. A religious recluse. See below. Monkery and monkhood mean the state or habits of a monk: monkish, monastic; pertaining to the so-called religious life.

Abdemeleck, as one weary of the world, gave over all, and betook himself to a solitary life, and became a melancholy Mahometan *monk.* *Knolles.*

'Twould prove the verity of certain words,
Spoke by a holy *monk.* *Shakspeare. Henry VIII.*

Neither do I meddle with their evangelical perfection of vows, nor the dangerous servitude of their rash and impotent votaries, nor the inconveniences of their *monkery.* *Hall.*

Monks, in some respects, agree with regulars, as in the substantial vows of religion; but in other respects *monks* and regulars differ; for that regulars, vows excepted, are not tied up to so strict a rule of life as *monks* are. *Ayliffe's Parergon.*

Rise, rise, Roscommon, see the Blenheim muse,
The dull constraint of *monkish* rhyme refuse. *Smith.*

The dronish *monks*, the scorn and shame of manhood,
Rouse and prepare once more to take possession,
And nestle in their ancient hives again. *Rowe.*

He had left off his *monkhood* too, and was no longer obliged to them. *Atterbury.*

Those publick charities are a greater ornament to this city than all its wealth, and do more real honour to the reformed religion, than redounds to the church of Rome from all those *monkish* and superstitious foundations of which she vainly boasts. *Id.*

MONK, denoted anciently 'a person who retired from the world to give himself up wholly to God, and to live in solitude and abstinence.' The original word μοναχος, solitary, is derived from μονος, alone. The persecutions which attended the first ages of the Gospel forced some Christians to retire from the world, and live in deserts and unfrequented places, in hopes of finding that peace and comfort among beasts which were denied them among men. And this being the case of some very extraordinary persons, their example gave so much reputation to retirement that the practice was continued when the reason of its commencement ceased. After the empire became professedly Christian instances of this kind were numerous; and those whose security had obliged them to live in solitude became afterwards united into societies. The mystic theology also, which gained ground towards the close of the third century, contributed to produce the same effect, and to drive men into solitude for the purposes of enthusiastic devotion. St. Cyril of Alexandria, in one of his letters, censures certain monks in Egypt, who, under pretence of devoting themselves to prayer, led a lazy scandalous life; a censure but too often applicable to monks in general.

The ancient monks were distinguished into solitaries, cœnobites, and sarabaites. The solitary were those who lived alone, remote from all towns, as do still some of the hermits. The cœnobites were those who lived in community with others in the same house, and under the same superiors. See CŒNOBITE. The sarabaites were strolling monks, having no fixed rule or residence. The houses of monks again were of two kinds, viz. monasteries and lauræ. See LAURA and MONASTERY. Those we now call monks are cœnobites, who live together in a monastery: who make vows of living according to a certain rule established by the founder, and wear a habit which distinguishes their order. Those that are endowed, or have a fixed revenue, are most properly called monks; as the Chartreux, Benedictines, Bernardines, &c. The Mendicants, or those that beg, as the Capuchins and Franciscans, are more properly called religious and friars; though the names are frequently confounded.

The first monks were those of St. Anthony; who, in the fourth century, formed them into a regular body, engaged them to live in society with each other, and prescribed to them fixed rules for the direction of their conduct. See ANTHONY. These regulations, which Anthony had made in Egypt, were soon introduced into Palestine and Syria by his disciple Hilarion. Almost about the same time, Aones and Eugenius, with their companions Gaddanas and Azyzas, instituted the monastic order in Mesopotamia and the adjacent countries; and their example was followed with such rapid success, that in a short time the whole east was filled with a lazy set of mortals, who, abandoning all human connexions, advantages, and concerns, wore out a languishing and miserable life amidst the hardships of want, and various kinds of suffering, in order, as they pretended, to arrive at a more close and rapturous communication with God and angels. From the east this gloomy institution passed into the west, and first into Italy and its islands; though it is uncertain who transplanted it thither. St. Martin, bishop of Tours, erected the first monasteries in Gaul, and recommended this religious solitude with such efficacy, that his funeral is said to have been attended by no fewer than 2000 monks. From hence the monastic discipline extended through the other countries of Europe. There were besides the monks of St. Basil (called in the east Calogeri, from καλος γερων, good old man), and those of St. Jerome, the hermits of St. Augustine, and afterwards those of St. Benedict and St. Bernard; at length came those of St. Francis and St. Dominic, with a legion of others. See BENEDICTINES, CALOGERI, &c.

Towards the close of the fifth century the monks, who had formerly lived only for themselves in solitary retreats, and had never thought of assuming any rank among the sacerdotal order, were gradually distinguished from the populace, and endowed with such opulence and honorable privileges that they found themselves in a condition to claim an eminent station among the supports and pillars of the Christian community. The fame of their piety and sanctity was so great that bishops and presbyters were often

chosen out of their order; and the passion of erecting edifices and convents, in which the monks and holy virgins might serve God in the most commodious manner, was at this time carried beyond all bounds. However their licentiousness, even in this century, was become proverbial, and they excited the most dreadful tumults and seditions in various places. The monastic orders were at first under the immediate jurisdiction of the bishops, from which they were exempted by the Roman pontiff about the end of the seventh century; and the monks, in return, devoted themselves wholly to advance the interests and to maintain the dignity of the bishop of Rome. This immunity which they obtained was a fruitful source of licentiousness and disorder, and occasioned the greatest part of the vices with which they were afterwards so justly charged. In the eighth century the monastic discipline was extremely relaxed both in the eastern and western provinces, and all efforts to restore it were ineffectual. Nevertheless this kind of institution was in the highest esteem, and nothing could equal the veneration that was paid, about the close of the ninth century, to such as devoted themselves to the sacred gloom of a convent. This veneration induced several kings and emperors to call them to their courts, and to employ them in civil affairs of the greatest moment. Their reformation was attempted by Louis the Meek, but the effect was of short duration. In the eleventh century they were exempted by the popes from the authority of their sovereigns, and new orders of monks were continually established; insomuch that in the council of Lateran, held in 1215, a decree was passed by the advice of Innocent III., to prevent any new monastic institutions; and several were suppressed. In the fifteenth and sixteenth centuries, it appears, from the testimonies of the best writers, that the monks were generally illiterate, profligate, and licentious Epicureans, whose views in life were confined to opulence, idleness, and pleasure. However the reformation had a manifest influence in restraining their excesses, and rendering them more circumspect in their external conduct. See REFORMATION.

It is fair, perhaps, to insert from an accredited source the modern doctrine of the church of Rome on this point.

Respecting the celibacy of the clergy at large, she says, 'The discipline of our church in this point has not always been, it is plain, precisely what it is at present; but because it is discipline, therefore may it be changed, as in the alteration of times and circumstances it has seemed, or shall seem, good to our ecclesiastical rulers. In the Greek and Latin churches the discipline is not the same; but in both the advice of St. Paul, founded on the justest views, if it did not always enforce the practice, served to establish the expediency of clerical celibacy.'

In regard to the religious or monastic state, it is afterwards said, 'On the advice given by Christ and by the apostle in these passages (Matt. xix. 10, 11, 20; 1 Cor. vii. 7, 8, 38—40) is founded the opinion which Catholics entertain of the expediency of what are called the *evangelical counsels*, that is of voluntary poverty, perpetual chastity, and entire obedience. 'When counsel is given,' says St. Jerome, 'the will is free; when a command, strict obedience is required.' To live up to these counsels constitutes the character of the monastic profession; the vows or solemn promises which are freely made induce the obligation, and from this arises the perfection of the state. The fathers are unanimous in their praises, and it was early in the Christian church that the state was embraced by many. It was not, however, before the fourth century that the eremitical life took a regular form in Egypt and other parts of the east; in the west St. Benedict, towards the close of the fifth, gave that rule to his followers which is most admired, and which has been very generally adopted by the various founders of religious orders, male and female, in the western church.—*Berrington's Faith of the Catholics confirmed by Scripture, and attested by the Fathers of the first five centuries.*

Monks are distinguished by the color of their habits into black, white, gray, &c. Some are called monks of the choir, others professed monks, and others lay monks; which last are destined for the service of the convent, and have neither clericate nor literature. Cloistered monks are those who actually reside in the house, in opposition to extra monks, who have benefices depending on the monastery. Monks are also distinguished into reformed, whom the civil and ecclesiastical authority have made masters of ancient convents, and put in their power to retrieve the ancient discipline which had been relaxed; and ancient, who remain in the convent, to live in it according to its establishment at the time when they made their vows, without obliging themselves to any new reform. Anciently the monks were all laymen, and were only distinguished from the rest of the people by a particular habit and an extraordinary devotion. Not only the monks were prohibited the priesthood, but even priests were expressly prohibited from becoming monks, as appears from the letters of St. Gregory. Pope Syricius was the first who called them to the clericate, on occasion of some great scarcity of priests, that the church was then supposed to labor under; and, since that time, the priesthood has been usually united to the monastical profession.

MONK (George), the principal agent in restoring the British monarchy, in the person of king Charles II., was descended from a very ancient family, and born in Devonshire in 1608. He dedicated himself to arms from his youth, and obtained a pair of colors in the expedition to the Isle of Rhée; he served afterwards in the Low Countries with reputation in both king Charles's northern expeditions; and did such service, in quelling the Irish rebellion, that he was appointed governor of Dublin, but was superseded by the parliament. Being made major-general of the Irish brigade, employed in the siege of Nantwich in Cheshire, he was taken prisoner by Sir Thomas Fairfax, and remained confined in the Tower of London until 1646; when, to procure his liberty, he took the covenant, and accepted a command in the Irish service under the parliament. He obtained the command in chief of all the parliamentary forces

in the north of Ireland, where he did signal service, until he was called to account for a treaty made with the Irish rebels. But he served in Scotland under Oliver Cromwell with such success, that he was left there as commander-in-chief; and he was one of the commissioners for uniting that kingdom with the commonwealth. He served at sea also against the Dutch; and was treated so kindly on his return, that Oliver is said to have been jealous of his fame. He was, however, again sent to Scotland as commander-in-chief, and continued there five years; when he dissembled so well, and improved circumstances so dexterously, that he restored the king without any disturbance; for which he was duly rewarded. He was created duke of Albermarle, with a grant of £7000 per annum estate, beside other emoluments. After his death in 1670 there was published a treatise composed by him while he was prisoner in the Tower, entitled Observations on Military and Political Affairs, folio.

MON'KEY. A diminutive of Sax. mon, man. An ape; baboon: hence a jackanapes or man who plays tricks like those of this animal: a term of contempt. See SIMIA.

One of them shewed me a ring that he had of your daughter for a *monkey*:—Tubal, it was my turquoise; I would not have given it for a wilderness of *monkeys*. *Shakspeare.*

This is the *monkey's* own giving out; she is persuaded I will marry her. *Id.*

Poor *monkey!* how wilt thou do for a father? *Id.*

Other creatures, as well as *monkeys*, destroy their young ones by senseless fondness.
Locke on Education.

With glittering gold and sparkling gems they shine,
But apes and *monkeys* are the gods within.
Granville.

MONKLAND, an extensive district of Lanarkshire, originally forming only one parish, so named from the monks of Newbottle. But a part of it being, about 1640, erected into a separate parish, called New or East Monkland, the remainder of the district was named Old or West Monkland.

MONMOUTH (James), duke of, son of king Charles II. by Mrs. Lucy Walters, was born at Rotterdam in 1649. Upon the Restoration he was called over to England, created earl of Orkney, and afterwards of Monmouth, and took his seat in the house of peers. He married Anne, the heiress of Francis earl of Buccleugh; and hence he had also the title of Buccleugh, and took the surname of Scott. In 1668 his father made him captain of his life-guard of horse; and in 1672 he attended the French king in the Netherlands, and gave proofs of bravery and conduct. In 1673 the king of France made him lieutenant-general of his army, with which he came before Maestricht, and behaved with great gallantry, being the first who entered it. He returned to England, was received with all possible respect, and made chancellor of the University of Cambridge. After this he went to assist the prince of Orange to raise the siege of Mons, and contributed much towards it. He returned to England, and was sent, as his father's general, to quell an insurrection in Scotland, which he effected. Being a Protestant, he was deluded into ambitious schemes, upon the hopes of the exclusion of the duke of York; he conspired against his father and the duke: and, when the latter came to the throne, he openly appeared in arms, encouraged by the Protestant army; but coming to a decisive battle before he had sufficient forces to oppose the royal army, he was defeated, taken soon after concealed in a ditch, tried for high treason, condemned, and beheaded in 1685, aged thirty-six.

MONMOUTH, a borough and market town of England, the county-town of Monmouthshire, is situate at the conflux of the Monnow and Wye, over which there are three bridges; there is another also over the small river Trothy, which falls into the Wye. It is twenty-five miles west from Gloucester, and 132 west by north from London. A broad and handsome street leads to the market-place, in which stands the town-hall, built over a handsome colonnade, and ornamented with the statue of Henry V., who was born in this place. At the extremity of the town is the gaol, a stone building, commodiously constructed, and under excellent regulations. St Mary's, the parish church, is also of stone, and has a spire 200 feet high. St. Thomas's is a small ancient church near Monnow-bridge. A little to the north are the remains of an alien priory of Benedictines. There was a strong Saxon fortress here, of which the remains are very slight. A free-school is here founded by a William Jones, a native of Newland, in Gloucestershire, who also endowed alms-houses for twenty poor people, who receive 3*s.* 6*d.* per week: a stipend of £100 per annum is allowed to a lecturer. The chief business of the town arises from the navigation of the Wye, which supplies the surrounding country with necessaries, and gives it a share in the trade between Bristol and Hereford. Iron and tin-works in the vicinity also employ a few hands; as well as the preparing of bark, which is brought down in considerable quantities from the woods in the upper districts, and, being here picked and cleaned, is exported to the south of England and Ireland. In the neighbourhood is a conical hill, named the Kymin, on the top of which is a naval pavillion, affording a very extensive prospect. Monmouth is thought to have been a Roman station, and, in conjunction with Usk and Newport, sends one member to parliament. The market on Saturday is well supplied with corn and provisions. Twenty-one miles west by south of Gloucester, fifteen north of Chepstow, and 130 west by north of London.

MONMOUTH, a county of New Jersey, bounded on the north-west by Middlesex county, on the north by Raritan Bay, on the east by the Atlantic, and on the south-west by Burlington county. Population 22,150. Chief town, Freehold.

MONMOUTH, a town of Monmouth, county of New Jersey, sixty-three miles E. N. E. of Philadelphia. The British troops under general Clinton were defeated here on the 17th of June, 1777, by the Americans under general Washington.

MONMOUTHSHIRE, a county of England, on the borders of the principality. At the time of the Roman invasion Monmouthshire was inhabited by the Silures. It was formerly called Wentset and Wents-land, and by the Britons Gwent, from an ancient city of that name. The present name is derived from the county-town. The British name was Mongwy, so called from its peninsular situation on the rivers Mon and Wye, or the mouth of the Mon (Monnow). It was originally a county of Wales, and once obtained considerable celebrity against the Roman and Saxon invaders. It sometimes formed a separate district under the name of Gevent, and at others was comprehended in Morganoc, or the kingdom of Glamorgan. When Henry VIII. abolished the government of lords marchers of Wales, and divided Wales into twelve counties, he included this county in England. 'A happy change,' says Mr. Coxe, 'from the oppression of feudal tyranny, to the just and equal administration of English laws.'

Monmouthshire is situated on the north shore of the Bristol Channel, or Severn Sea; and is bounded on the west by the river Rumney, which separates it from Glamorganshire; on the north by small brooks and land-marks, and by the rivers Usk and Monnow, which separate it from the counties of Brecknock and Hereford; on the east by Gloucestershire, from which it is separated by the river Wye, from Redbrook to the Severn. 'The extreme points of the county,' says Mr. Hassell, whose Agricultural Survey is here quoted, 'taken east, west, north, and south, are from lat. 52° 22′ to 54° 0′, and from long. 2° 41′ to 3° 19′ W. from Greenwich.' The superficial contents, according to a map of the county published by C. Smith of London in 1801, amount to 316,800 acres; the length being thirty-three miles from north to south, and the breadth from east to west twenty-six miles. The county is divided into six hundreds and seven towns. It is in the diocese of Llandaff, except six parishes, four being in the diocese of Hereford, and two in that of St. David's; and in the province of Canterbury.

The climate of this county is mild in the vales and southern parts, but gradually colder, ascending the hills towards Breconshire, where the snows sometimes remain on the ground till a late period of the spring. The general humidity of the western districts of the kingdom is felt in this county, where the rains are of long continuance. The great estuary of the Severn attracts the clouds of the Western Ocean, and causes torrents of rain to fall on its north and south shores, much more frequently than on the inland parts of Wales, and the West of England. The soil of this county is thus described by the Agricultural Survey: that ridge of land in the hundred of Wentloog, extending from Rumney Bridge to Newport, consists of clay, loam, and gray soil; the clay being for the most part towards the west end of the ridge, the loam along its south and middle, and the gray soil to the northern confines of it, but not nearly of equal extent with the loam, the latter extending itself along the Rumney to Machen and Bedwas, and up the vale from Tredegar to Risca. The substratum of these soils is rock or rubble, except in a few places, where the clay is deep. Beds of limestone also occur in several parts, which afford an ample supply of manure to the tillers of the ground. The soil of the level is for the most part loamy, a mixture of mud, brought down by the influx of the Severn, Wye, Usk, Rumney, and other rivers, and marine sand thrown in by strong tides from the westward. The clays are here as in most other counties. Of Caldicot Level, extending along the coast from the river Usk to Portskewit, the soil is a rich loam, with more or less strength in proportion to the quantity of mud or sand mixed with it. The substratum is limestone in part, and a brown or gray rock in other parts; not ranging in regular strata, but breaking out here and there in a promiscuous manner. The soil of the Usk hundred is more argillaceous than that of Caldicot, and may be reckoned on the whole a clay district; about Usk, however, and for the space of two miles up the river, the land is sandy and rather light, with a good depth in most parts. There are also some spots of sandy land along the river downwards. The county westward of the Usk maintains the general character of the hundred, being a clay or strong loam. Ragland hundred has soils of various sorts. In the vale district, and for several miles round Ragland, it is a strong clay. The vale part, indeed, is altogether of a strong argillaceous kind, with as little variety as can be expected in a county consisting of undulated lands. Neither high hills nor extensive levels are to be found; but a waving surface every where prevails. The substratum consists mostly of rubble and detached stones, except in such parts as where beds of clay are found to a great depth. On the hilly ridge from Wobes Newton in the south to Pennalth in the north, the soil is loamy, sometimes of a reddish color, sometimes gray, and lying in broken strata without any regular courses of either sort. The substratum is mostly a rubble, with here and there a quarry of tolerable stone for building. The limestone ends to the southward of Tintern Abbey, and is not found again as you travel northward through this district, except a few partial spots near Dingestow. Skenfreth hundred borders on Herefordshire, and exhibits more of the agricultural practice of that county than any other district in the county of Monmouth. The vale lands around Monmouth, and skirting the hills to Llangattock, Vibonavel, and White Castle, consist mostly of clay soil, with a substratum of rubble; in some parts grit or loose gravel, with a mixture of sand; in others deep clays. The lands about the Wye and Monnow rivers are rich meadows, whenever they lie low enough to receive the overflowing of those rivers whose waters bring down the rich mucilaginous mud of Herefordshire. The hilly part of this hundred, stretching towards the north-west from Rockfield, consists of more light and loamy soil than the vale; the lands are interspersed with woods. The soil of Abergavenny hundred is exceedingly variable; many parts of it consist of a brown loam, sometimes approaching to red; others of a gray loam: and many of the old enclosed farms, and of the wastes adjacent to them,

are of a moist and peaty soil, requiring draining and cultivation. The soil of the hills extending northward from Abergavenny to the confines of Herefordshire, beyond Llanthony Abbey, and eastward to Compston Mountain, consist of a brown or reddish loam, varying in depth according to the situation and steepness of the lands, from five inches to fifteen.

The principal rivers are the Wye, which enters the county two miles above Monmouth, and passing that town and Chepstow falls into the Severn Sea three miles below the latter; the Usk enters the county near Clydach, passes Abergavenny, Usk Caerleon, and Newport, and falls into the Severn Sea three miles below the latter; and the Rumney, which forms the western boundary of the county. The most important source of commercial intercourse, until a recent period, was little known in this county. The Monmouthshire Canal, commenced in 1792 and completed in 1798, consists of two branches, which unite at Malpas. This canal commences on the west side of the town of Newport, having a basin connected with the river Usk. Passing between the town and the river, it crosses the Chepstow road, and pursues its route parallel by Pont y Pool to Pontnewyndd. The principal produce of this county consists in corn, fine oxen, and sheep.

This county returns three members to parliament, viz. two for the shire, and one for the county of Monmouth. The great family of Morgan Tredegar for a long time almost constantly represented this county.

This county has not produced many persons of eminence. Geoffrey of Monmouth, whose proper name was Geoffery ap Arthur, was, as is thought, a native of Monmouth. He was a learned monk of the Benedictine order, and wrote a translation into Latin of a British history, entitled Brut y Breninodd, or the Chronicle of the Kings of Britain. He lived in the twelfth century. Henry V., king of England, was also born here. The county town, Monmouth, gives the title of earl to the Mordaunt family—Abergavenny gives the title of earl and baron to the Neville family—Chepstow gives the title of baron to the Somerset family—Lathony gives the title of baron to the Buller family—Ragland and Gower the same to the Somersets—and Grosmount the title of viscount to the same.

This county formerly manufactured large quantities of flannel and narrow cloth; but the quantity now made is so inconsiderable as not to be an object among its productions. The manufacture of japan ware was also famous in its day; this also has declined, and is only continued on a very narrow scale at Pontypool and Usk. The iron works are the boast, and certainly, in every point of view, the most important objects of trading consideration in Monmouthshire. The attention of the county was first excited to this lucrative branch of manufacture in the reign of queen Elizabeth; and from that period, considered by many the time of their origin, the iron business of this district, and in the adjacent one of Glamorganshire, made a rapid progress; and much surprise had been expressed why they should have been so long neglected. This surprise, indeed, may almost rise into wonder, when it is recollected that iron was manufactured in this part of the island at an epoch beyond the reach of history. Large heaps of cinders, or slag, have often been discovered, evidently the refuse of Roman or British bloomeries, the process in which was the ancient method of fusing iron. The iron trade again declined, after its revival in the time of Elizabeth, from a variety of causes. The troubles in the reign of Charles I., and the changes which took place in point of property, occasioned an alteration in the genius of the people: agriculture was more attended to; the lands were cleared; the forests were neglected. Mr. Coxe, who wrote in the year 1801, says 'that about forty years ago a sudden renewal of the works took place, occasioned by the discovery that pit-coal would form a useful substitute for charcoal in the making of pig-iron; and its utility was further extended to the manufacturing of bar-iron. The local advantages of this county, in these respects, are peculiarly great, as the district abounds in iron ore, coal, lime, numerous streams of water, and every requisite proper for this branch of business. These have been powerfully aided by the mechanical powers, the use of the steam-engine, the improvement in hydraulic machinery, and the adoption of rollers instead of forge hammers, called the puddling process, by which bar-iron is formed with a degree of despatch and exactness previously unknown. From this occurrence of circumstances, the success has been no less rapid than extraordinary. Fifteen years ago the weekly quantity of pig-iron made in this part of Monmouthshire, and in the contiguous district of Glamorganshire, did not exceed sixty tons; at present it scarcely falls short of 600. At that period no bar-iron was manufactured, but now the quantity amounts weekly to more than 300 tons. The works are rapidly increasing in extent and importance, and appear likely to surpass the other iron manufactories throughout the kingdom.'

MONNET (Anthony Grimoald), a French chemist of eminence, and inspector-general of mines, was born of low parentage, in Auvergne, in 1734. He settled as an apothecary at Rouen, but, becoming known as a superior chemist, he removed to Paris, and obtained in 1774, through the patronage of Mālesherbes, the place of inspector-general of mines. He now prepared, in conjunction with Guettard, a mineralogical atlas of France, and was one of the few chemical philosophers who rejected and opposed the theories of Lavoisier. Deprived of office at the Revolution, he passed the latter part of his life in retirement, and died at Paris in 1817. He wrote also Memoire Historique et Politique sur les Mines de France, 1790, 8vo.; Demonstration de la Fausseté des Principes des Nouveaux Chimistes, 1798, 8vo.; besides a great number of analyses and memoirs in the Journal de Physique, &c.

MONNOYE (Bernard de la), an eminent French writer, born at Dijon in 1641. He was a man of great learning, and gained some of the first prizes instituted by the French academy,

till he discontinued to write for them at their own solicitation; a circumstance which reflects the highest honor on him. He was equally skilful in Latin and French poetry, and Menage and Bayle bestowed the highest encomiums on his Latin poetry. His Greek and Italian poems are likewise very good. He had also a very accurate and extensive knowledge of the languages; He wrote Remarks on the Menagiana; in the last edition of which, in 4 vols. 12mo, printed in 1715, are several pieces of his poetry, and a curious dissertation on the book De Tribus Impostoribus. His Dissertation on Pomponius Lætus is inserted in Baillet's Jugemens des Sçavans, in 1722, with remarks and corrections by La Monnoye. He also embellished the Anti-Baillet of Menage with many corrections and notes. He was of great service to the republic of letters, not only by productions of his own, but by freely assisting upon all occasions the learned of his time. He favored Bayle with many curious particulars for his Dictionary, and was highly applauded by him. He died in Paris, October 15th, 1728, in his eighty-eighth year. Mr. De Sallinger published at the Hague a Collection of his Poems, with his eulogium. He also left behind him a Collection of Letters, mostly critical; several curious Dissertations; 300 Select Epigrams from Martial, and other poets, in French verse; and several other works in prose and verse, in French, Latin, and Greek.

MONNOYER (John Baptist), 'one of the greatest masters,' according to Mr. Walpole, 'that have appeared in flower painting. They are not so exquisitely finished as Van Huysum's, but his coloring and composition are in a bolder style.' He was born at Lisle in 1635; and educated at Antwerp. Going to Paris in 1663, he was received into the academy with applause; was employed at Versailles, Trianon, Marly, and Meudon; and painted in the hotel de Bretonvilliers at Paris, &c. The duke of Montagu brought him to England, where many of his pieces are to be seen at Montagu House, Hampton Court, and Kensington. But his most curious work is a looking-glass at Kensington Palace, which he adorned with flowers for queen Mary II., who honored him with her presence nearly the whole time he was busied in the performance. He went several times to France, where his daughter had married a French painter. He died in Pall-mall in 1699.

MONOCEROS, unicorn, in astronomy, a southern constellation formed by Hevelius, containing in his catalogue nineteen stars, and in the Britannic catalogue thirty-one.

Monoceros, in zoology. See Monodon.

The MONOCHORD is used as well in the natural as in tempered scales. Originally it had, as its name implies, only one string; but it is better constructed with two, as we have, by means of this additional string, an opportunity of judging of the harmony of two tempered notes in every possible variety of temperament. See Temperament and Tone. It consists of a brass rule placed upon a sound-board, and accurately divided into different scales, according to the purposes for which it is chiefly intended. Above this rule the strings are to be stretched over two fixed bridges, between which there is a moveable fret, so contrived as to divide at pleasure one of the strings into the same proportional parts as are engraved upon the scales beneath. The figure of the instrument, the manner of striking the strings so as to produce the sound, as likewise the construction of the moveable bridge, may be varied at pleasure according to the wish and ingenuity of the artist. But with the assistance of such an instrument, accurately constructed, any person with a good ear may be enabled to tune a keyed instrument with sufficient precision to answer every practicable purpose. See Tuning. The curious reader, who may wish for further information respecting the construction and use of monochords, will be highly gratified in perusing the appendix of Mr. Atwood's Treatise on Rectilinear Motion, and Mr. Jones's ingenious and entertaining observations on the scale of music, monochord, &c., in his Physiological Disquisitions.

MONOC'ULAR, *adj.* } Gr. μονος, one, and
Monoc'ulous. } *oculus.* One-eyed; having only one eye.

He was well served who, going to cut down an antient white hawthorn tree, which, because she budded before others, might be an occasion of superstition, had some of the prickles flew into his eye, and made him *monocular*. *Howel.*

Those of China repute the rest of the world *monoculous*. *Glanville's Scepsis.*

MONOCULUS, in entomology, a genus of insects of the order aptera. Its body is short, of a roundish figure, and covered with a firm crustaceous skin; the fore legs are ramose, and serve for leaping and swimming; it has but one eye, which is large and composed of three smaller ones. Of this genus, many of which have been reckoned among the microscopic animals, authors enumerate a great number of species. The name monoculus has been given to this genus, as consisting of individuals which apparently have but one eye: and, from the manner in which they proceed forward in the water by leaping, they have also been called water fleas. The branching antennæ serve them instead of oars, the legs being seldom used for swimming. The tail forked in some species, in others simple, serves them for a rudder. Their color varies from white to green, and to red, more or less deep, doubtless in a ratio to the fragments of the vegetables on which they feed. The red tincture they sometimes give to the water has made some think that the water had turned to blood. Too weak to be carnivorous, they fall a prey to other aquatic insects, even to the polypi. Their body, compact and hard, is so transparent that in some the eggs with which the abdomen is filled are discernible. The water parrot and the shell monoculus are remarkable. This latter is provided with a bivalvular shell, within which he shuts himself up, if drawn out of the water. The shell opens underneath, the insect puts forth its antennæ, by means of which it swims very expeditiously in various directions, seeking a solid body to adhere to, and then it is it uses its feet in walking, by stretching them out through the aperture of its shell. 'I preserved a pair of these insects,' says Mr. Barbut, 'in a

small glass tumbler, the one male, the other female, having a bag filled with eggs affixed on each side the abdomen. In the space of fourteen days the increase was astonishing: it would have been impossible to have taken a single drop of water out of the glass, without taking with it either the larva or a young monoculus. I again repeated the experiment, by selecting another pair; and at the expiration of the last fourteen days my surprise was increased beyond measure. The contents of the glass appeared a mass of quick-moving animated matter; and being diversified by colors of red, green, ash-color, white, &c., afforded, with the assistance of the magnifier, considerable entertainment.

M. quadricornis, the four-horned monoculus, a very small species, about half a line in length, and of an ashen-gray color. From the head arise four antennæ, two forwards and two backwards; all furnished with a few hairs, which give them the figure of a branch. Between the antennæ, on the fore part of the head, is situated a single eye. From the head to the tail the body goes down, decreasing in shape like a pear; and is composed of seven or eight rings, which grow continually more straitened. The tail is long, divided into two; each division giving rise outwardly to three or four bristly hairs. The animal carries its eggs on the two sides of its tail, in the form of two yellowish parcels filled with small grains, and which, taken together, nearly equal the insect in bigness. This minute insect is found in standing pools. A number of them being kept in a bottle of water, some will be seen loaded with their eggs, and after a while depositing the two parcels, either jointly or separately.

MONODON, in ichthyology, a genus of fishes belonging to the order of cete; the characters of which are these: there are two very long, straight, and spirally twisted teeth, which stick out from the upper jaw; and the spiracle, or breathing hole, is situated on the anterior part of the skull. There is but one species:—

M. monoceros, the horned narwhal, sometimes grows to twenty-five feet in length, exclusive of the horn, or, as some authors say, to forty, or even sixty feet long, and twelve broad; but the usual size is from sixteen to twenty. It is particularly noted for its horn or horns. Of these there are always two in young animals; though the old ones have generally but one, sometimes none. From the circumstance of only one tooth being usually found, the animal has acquired the name of unicorn fish, or sea unicorn. They inhabit the northern seas, from Norway to within the Arctic Circle: they are plentiful in Davis's Straits and the north of Greenland; where the natives, for want of wood, make rafters of the horns. From the tooth or horn may be distilled a very strong sal volatile: the scrapings are esteemed alexipharmic, and were used of old in malignant fevers, and against the bites of serpents. The use of it to the animal seems to be chiefly as a weapon of offence, and a very powerful one it appears to be: there are many instances of its having been found in the bottom of ships which returned from the north seas, probably owing to the animal's mistaking the ship for a whale, and attacking it with such fury as not to be able to get out the weapon from the wood. It may also serve as an instrument to loosen and disengage from the rocks or bottom of the sea the sea plants on which it feeds. These fishes swim swiftly, and can only be struck when numbers happen to be found together, and obstruct their own course with their horns. Their skin is white, with black spots on the back, and has a great quantity of blubber underneath. The tooth of this animal was anciently imposed upon the world as the horn of a unicorn, and sold at a very high price. There is a magnificent throne made of this species of ivory for the Danish monarchs, which is still preserved in the castle at Rosenberg. The price of this material was superior to gold.

MON'ODY, *n. s.* Fr. *monodie*; Gr. *μονωδια*. A poem sung by one person, not in dialogue: or see below.

Monody, compounded of *μονος*, solus, and *ωδη*, a song, in the ancient poetry, is a kind of mournful song or ditty sung by a person alone, to utter his grief. *Dr. A. Rees.*

MONODY, from *μονος*, alone, and *αδω*, I sing, was, in ancient poetry, a mournful kind of song, sung by a person all alone, to give vent to his grief.

MONŒCIA, from *μονος*, alone, and *οικια*, a house; the twenty-first class in Linnæus's sexual method. See BOTANY.

MONOG'AMY, *n. s.* } Fr. *monogamie*; Gr
MONOG'AMIST. } *μονος* and *γαμος*, marriage. The marriage of one wife: one who disallows polygamy, or second marriages.

Monogamy is the state or condition of those who have only married once, or are restrained to a single wife. *Dr. Rees.*

MONOGYNIA, from *μονος*, alone, and *γυνη*, a woman, the first order in the first thirteen classes of Linnæus's sexual method; consisting of plants which, besides their agreement in their classic character, generally derived from the number of their stamina, have only one style, or female organ. See BOTANY.

MON'OLOGUE, *n. s.* Fr. *monologue*; Gr. *μόνος* and *λόγος*. A scene in which a person of the drama speaks by himself; a soliloquy.

He gives you an account of himself, and of his returning from the country, in *monologue*; to which unnatural way of narration Terence is subject in all his plays. *Dryden.*

MONONGAHELA, a river of the United States, which rises at the foot of Laurel Mountain in Virginia; thence meanders north by east into Pennsylvania; thence winding north by west separates Fayette and Westmoreland from Washington County, and, passing into Alleghany County, joins the Alleghany at Pittsburg, and forms the Ohio. See OHIO. About fifteen miles from its mouth it receives the Youghiogany from the south-east. It is about 220 miles long from its source to its mouth, and 300 yards broad for ninety-five miles.

MONOPHYSITES, from *μονος*, alone, and *φυσις*, nature, a general name given to those churches in the Levant who own only one nature

in Jesus Christ; and who maintain that the divine and human nature of Christ were so united as to form only one nature, yet without any change, confusion, or mixture of the two natures. The monophysites, however, properly so called, are the followers of Severus, a learned monk of Palestine, who was created patriarch of Antioch in 513, and of Petrus Fullensis. They were encouraged by the emperor Anastatius, but depressed by Justin and succeeding emperors. However, this sect was restored by Jacob Baradæus, an obscure monk, insomuch, that when he died bishop of Edessa A. D. 588, he left it in a most flourishing state in Syria, Mesopotamia, Armenia, Egypt, Nubia, Abyssinia, and other countries. The laborious efforts of Jacob were seconded in Egypt and the adjacent countries by Theodosius bishop of Alexandria; and he became so famous, that all the monophysites of the east considered him as their second founder, and are called Jacobites, in honor of their new chief. The monophysites are divided into two sects or parties, the one African, the other Asiatic: at the head of the latter is the patriarch of Antioch, who resides for the most part in the monastery of St. Ananias, near the city of Merdin: the former are under the jurisdiction of the patriarch of Alexandria, who generally resides at Grand Cairo, and are subdivided into Cophts and Abyssinians. From the fifteenth century downwards, all the patriarchs of the monophysites have taken the name of Ignatius, to show that they are the lineal successors of Ignatius, bishop of Antioch in the first century, and consequently the lawful patriarchs of Antioch. In the seventeenth century, a small body of the monophysites in Asia abandoned for some time the doctrine and institution of their ancestors, and embraced the communion of Rome: but the African monophysites, notwithstanding that poverty and ignorance which exposed them to the seductions of sophistry and gain, stood firm in their principles, and made an obstinate resistance to the promises, presents, and attempts employed by the papal missionaries to bring them under the Roman yoke; and, in the eighteenth century, those of Asia and Africa have persisted in their refusal to enter the communion of the Romish church, notwithstanding the earnest entreaties and alluring offers that have been made from time to time by the pope's legates, to conquer their inflexible constancy.

MONOPOLI, a well built town of Naples, in the Terra di Bari, on the Adriatic. It contains a fine cathedral, a number of other churches, and has 15,600 inhabitants. Its manufactures are hempen and other stuffs; and its trade in these articles, wine and cloves. Six miles off are the remains of the ancient Egnotia, and several curious subterranean villages in the neighbourhood.

MONOP'OLY, *n. s.* } Fren. *monopole*; Gr.
MONOP'OLIST, } μονος and πωλεω, to
MONOP'OLISE, *v. a.* } sell. The sole privilege of sale: exclusive right of market: it is commonly used for an usurped privilege or advantage of this kind: monopolist is one who obtains this privilege in any way: to monopolise is to engross the sole power or privilege of sale.

If I had a *monopoly* on't they would have part on't. *Shakspeare.*

How could he answer it, should the state think fit,
To question a *monopoly* of wit? *Cowley.*

One of the most oppressive *monopolies* imaginable; all others can concern only something without us, but this fastens upon our nature, yea upon our reason. *Government of the Tongue.*

Shakspeare rather writ happily than knowingly and justly; and Jonson, who, by studying Horace, had been acquainted with the rules, yet seemed to envy posterity that knowledge, and to make a *monopoly* of his learning. *Dryden's Juvenal.*

He has such a prodigious trade, that if there is not some stop put, he will *monopolise*; nobody will sell a yard of drapery, or mercery ware, but himself. *Arbuthnot.*

It moves me more perhaps than folly ought,
When some green heads, as void of wit or thought,
Suppose themselves *monopolists* of sense,
And wiser men's ability pretence. *Cowper.*

A MONOPOLY, in law, is the act of one or more persons making themselves the sole masters of the whole of a commodity, manufacture, and the like, in order to make private advantage of it, by selling it again at a very advanced price: or it is a license or privilege allowed by the king for the sole buying and selling, making, working, or using any thing whatsoever. Monopolies had been carried to an enormous height during the reign of queen Elizabeth; and were heavily complained of by Sir Edward Coke, in the beginning of the reign of king James I.: but were in great measure remedied by statute 21 Jac. I. c. 3, which declares such monopolies to be contrary to law, and void (except as to patents, not exceeding the grant of fourteen years, to the authors of new inventions, and except also patents concerning printing, saltpetre, gunpowder, great ordnance, and shot); and monopolists are punished with the forfeiture of treble damages and double costs, to those whom they attempt to disturb; and if they procure any action, brought against them for these damages, to be stayed by any extrajudicial order, other than of the court wherein it is brought, they incur the penalties of præmunire. Combinations also, among victuallers or artificers, to raise the price of provisions, or any commodities, or the rate of labor, are in many cases severely punished by particular statute; and, in general, by statute 2 and 3 Edw. VI. c. 15, with the forfeiture of £10 or twenty days' imprisonment, with an allowance of only bread and water, for the first offence; £20 or the pillory for the second; and £40 for the third, or else the pillory, loss of one ear, and perpetual infamy. In the same manner, by a constitution of the emperor Zeno, all monopolies and combinations to keep up the price of merchandise, provisions, or workmanship, were prohibited, under pain of a forfeiture of goods and perpetual banishment. Dr. Smith's opinion respecting engrossing and forestalling is well known; the popular fear respecting them he compares to the popular terrors and suspicions of witchcraft, and he concludes by observing, that the law which should restore entire freedom to the inland trade of corn would probably prove as effectual to put an end to the popular fears of engrossing and forestalling, as the law which put an end to all

prosecutions for witchcraft, destroyed the fear and suspicion of it, by taking away the great cause which encouraged and supported them.

'If,' says Dr. Smith, 'a merchant ever buys up corn, either going to a particular market, or in a particular market, in order to sell it again soon after in the same market, it must be because he judges that the market cannot be so liberally supplied through the whole season as upon that particular occasion, and that the price, therefore, must soon rise. If he judges wrong in this, and if the price does not rise, he not only loses the whole profit of the stock which he employs in this manner, but a part of the stock itself, by the expense and loss which necessarily attend the storing and keeping of corn. He hurts himself, therefore, much more essentially than he can hurt even the particular people whom he may hinder from supplying themselves upon that particular market day, because they may afterwards supply themselves just as cheap upon any other market day. If he judges right, instead of hurting the great body of the people, he renders them a most important service. By making them feel the inconveniences of a dearth somewhat earlier than they otherwise might do, he prevents their feeling them afterwards so severely as they certainly would do, if the cheapness of price encouraged them to consume faster than suited the real scarcity of the season. When the scarcity is real, the best thing that can be done for the people is to divide the inconveniences of it as equally as possible through all the different months, and weeks, and days of the year. The interest of the corn merchant makes him study to do this as exactly as he can: and as no other person can have either the same interest, or the same knowledge, or the same abilities to do it so exactly as he, this most important operation of commerce ought to be trusted entirely to him; or, in other words, the corn trade, so far at least as concerns the supply of the home market, ought to be left perfectly free.'

Indeed, when we consider the numerous and great obstacles and difficulties which must lie in the way of every person who attempts to get into his possession the whole, or the greater part of any commodity; the immense capital or credit which he must possess; the confidence he must place on the integrity of his agents, and the reliance he must have on their skill and judgment; the effect on the price of the commodity, which his attempts to monopolise it must necessarily produce; and the great probability that he will be compelled to desist from his undertaking long before he has brought it to a close, from an erroneous calculation of his means: it will appear evident that it cannot be the interest of any man to risque his capital in such an absurd and impracticable undertaking. If there should be persons so blind to their own interests as to begin the attempt, their punishment may safely be left to flow from their own measures, as long before they can materially, or even in a trifling degree, injure the public, they will either open their eyes to their own folly, or be incapacitated by their own ruin from proceeding in their enterprise.

MONOPTOTE, *n. s.* Gr. μόνος and πτῶσις. A noun used only in some one oblique case.

MON'OSTITCH, *n. s.* Gr. μονόστιχον. A composition of one verse.

MON'OSYLLABLE, *n. s.* / MON'OSYLLABICAL, *adj.* / MON'OSYLLABLED. } Fr. *monosyllabe*; Gr. μόνος and συλλαβη. A word of only one syllable; consisting of one syllable.

Nine taylors, if rightly spelled,
Into one man are *monosyllabled*. *Cleaveland.*
My name of Ptolemy!
It is so long it asks an hour to write it:
I'll change it into Jove or Mars!
Or any other civil *monosyllable*,
That will not tire my hand.
Dryden's Cleomenes.

Monosyllable lines, unless artfully managed, are stiff or languishing; but may be beautiful to express melancholy. *Pope.*

Poets, although not insensible how much our language was already overstocked with *monosyllables*, yet, to save time and pains, introduced that barbarous custom of abbreviating words, to fit them to the measure of their verses. *Swift.*

Monosyllables and words accented on the last syllable, ending with a single consonant preceded by a single vowel, double that consonant, when they take another syllable beginning with a vowel. *Murray.*

MONOTHELITES, from μονος, single, and θελημα, will, an ancient sect which sprung out of the Eutychians; thus called, as only allowing of one will in Jesus Christ. The Monothelites had their rise in 630, and had the emperor Heraclius for an adherent: they were the same with the Acephalous Severians. They allowed of two wills in Christ, considered with regard to the two natures; but reduced them to one, by reason of the union of the two natures; thinking it absurd there should be two free wills in one and the same person. They were condemned by the sixth general council in 680, as being supposed to destroy the perfection of the humanity of Jesus Christ, depriving it of will and operation. Their sentiments were afterwards embraced by the Maronites.

MONOTONY, *n. s.* Gr. μονοτονια; μονος and τονος, sound; Fr. *monotonie*. Uniformity of sound; want of variety in cadence.

I could object to the repetition of the same rhymes within four lines of each other as tiresome to the ear through their *monotony*. *Pope's Letters.*

A mechanical attention to these resting-places has perhaps been one cause of *monotony*, by leading the reader to a similar tone at every stop, and a uniform cadence at every period. *Murray.*

MONOTROPA, bird's-nest, a genus of the monogynia order, and monandria class of plants: CAL. none; petals ten; and of these the five exterior have a melliferous hollow at the base: CAPS. quinquevalved. In some of the flowers a fifth part of the number is excluded. There are two species. The most remarkable is,

M. hippopithys, a native of Britain and some of the more northerly kingdoms of Europe. It is about five inches high, having no other leaves than oval scales, and terminated with a nodding spike of flowers, which in the seeding state becomes erect: the whole plant is of a pale yellow color, smelling like the primrose, or like beans in blossom. The country people in Sweden give the dried plant to cattle that have a cough.

MONREALE, a charming town of Sicily, about two miles W. S. W. of Palermo: its situation in particular is beautiful, and its cathedral one of the finest specimens extant of the enriched Gothic architecture. Its roof is supported by pillars, and the walls are covered with morasses. Population about 8000. In the vicinity is a well endowed convent.

MONRO (Dr. Alexander), senior, a most eminent physician and anatomist. He showed an early inclination to the study of physic; and his father, after giving him the best education that Edinburgh afforded, sent him successively to London, Paris, and Leyden. In London he attended the lectures of Messrs. Hawksbee and Whiston on experimental philosophy, and the anatomical demonstrations of Mr. Cheselden. In Paris he attended the hospitals, and the lectures on physic and surgery. In autumn 1718 he went to Leyden, and studied under the great Boerhaave, by whom he was particularly esteemed. On his return to Edinburgh, in autumn 1719, Messrs. Drummond and Macgill, who were then conjunct nominal professors of anatomy to the Surgeon's Company, having resigned in his favor, he began to read public lectures on anatomy, which were the first regular course of lectures on any of the branches of medicine that had ever been read at Edinburgh, and may be considered as the opening of that medical school which has since acquired such great reputation all over Europe. About 1720 his father communicated to the physicians and surgeons at Edinburgh a plan, which he had long formed in his own mind, of having the different branches of physic and surgery regularly taught at Edinburgh; which was highly approved of by them, and by their interest regular professorships of anatomy and medicine were instituted in the university, of the former of which Dr. Monro was the first professor. But, although he was elected to this professorship in 1721, he was not inducted into the university till the year 1725. From this time he regularly gave a course of lectures on anatomy and surgery, from October to May. A task in which he persevered with the greatest assiduity, and without the least interruption, for nearly forty years; and so great was the reputation he had acquired, that students flocked to him from the most distant corners of the empire. In 1759 our professor entirely relinquished the anatomical theatre to his son Dr. Alexander, who had returned from abroad, and had assisted him in the course of lectures in 1758. He still, however, rendered his labors useful to mankind, by reading clinical lectures at the hospital. He had the satisfaction to behold that seminary of medical education which his father had planned, and he had begun, frequented yearly by 300 or 400 students: and to see it arrive at a degree of reputation far beyond his most sanguine hopes, being equalled by few, and excelled by none in Europe. He was elected F. R. S. of London, and an honorary m emberof the Royal Academy of Surgery at Paris. He died July 10th 1767, in the seventieth year of his age. A collection of all his works, properly arranged, corrected, and illustrated with copper plates, has been published by Dr. Alexander Monro, his son and successor, in a splendid 4to volume; Edinburgh, 1781; to which he prefixed a life of the author, by another of his sons.

Monro (John), M. D., an eminent English physician, born at Greenwich in Kent, but descended of a Scottish family. He was educated in London, and afterwards at St. John's College, Oxford, of which he became a fellow, and from which he received his degree while he was abroad; for he studied physic at several universities. In 1757 he was appointed joint physician along with his father, to Bridewell and Bethlehem hospitals. He published an excellent answer to Dr. Battie's Treatise on Madness, and died in 1791.

MONS, a fine old fortified town of the Netherlands, the capital of Hainault, stands partly on a hill, and partly in a plain, on the small river Trouille. It is surrounded by an earthen mound and ditch, and is the only strong place between Brussels and the French frontier. It has several squares, and tolerably regular streets. The market place contains the government-house, and the house of the provincial council. The hotel de ville, a large old building, erected in 1716, has a fine steeple, and is situated in a square where the principal streets meet. The church of St. Elizabeth is remarkable as occupying the site of an ancient castle, demolished in 1618, and said to have been founded by Julius Cæsar. The charitable institutions are, a large hospital constructed by Vauban, a foundling hospital, and a workhouse. The public library is extensive: and Mons has woollen, cotton, linen, and lace manufactories of good extent. Its command of coal has led likewise to the establishment of iron foundries, salt works, earthenware, oil, and soap works; in all of which articles its trade is considerable. It communicates with Paris by the canal of St. Quentin. Mons has frequently experienced the depopulating effects of war. In 1691 it was besieged by Louis XIV.; when, to prevent its bombardment, the citizens compelled the governor to capitulate. In 1709 it was taken by the duke of Marlborough and prince Eugene, after the battle of Malplaquet. In 1746 it was again taken by marshal Saxe; and in the wars of the French revolution (1792, 1793, 1794), it was successively taken and retaken by opposing parties. Twenty-three miles E. N. E. of Valenciennes, and thirty-six S. S. W. of Brussels. Population 20,000.

Mons Sacer, in ancient geography, a mountain of the Sabines beyond the Anio, to the east of Rome; whither the people retired once and again to avoid the tyranny of the patricians. From this secession, and the altar of Jupiter Terribilis erected there, the mountain took its name.

MONSELICE, a town of Italy, in the province of Padua, situated on a navigable canal. It is ten miles from the Adige River, and twenty from the Po, and has considerable manufactures of woollen and linen. It has also a brisk trade by its canal with Padua. Population 9000. Ten miles S. S. W. of Padua.

MON'SIEUR, *n. s.* Fr. Sometimes a term of reproach for a Frenchman.

A Frenchman his companion;
An eminent *monsieur*, that, it seems, much loves
A Gallian girl. *Shakspeare. Cymbeline.*

MONSIGNORI (Francesco), a celebrated painter, born at Verona in 1455. He studied under Andrea Mantegna, by whose precepts he acquired a good taste for historical composition, and an excellent style of portrait painting. His talents procured him the patronage of the marquis of Mantua, who allowed him a large pension, and employed him several years. He was accustomed to amuse himself often in observing Monsignori at work; and, one day taking particular notice of a picture representing the death of Sebastian, the marquis acknowledged every part of the painting to be elegant, but objected that the expression of the figure was not natural, as neither in the look, the limbs, or attitude, appeared the agony of a person in such a situation, bound with cords, and pierced with arrows. The painter asserted the truth of his figure, and endeavoured to justify it, by affirming, that he had taken every part from nature, having engaged a porter for his model, who was tied in the posture described in the painting. The marquis desired to see the porter in the proper position the next day, that it might be determined which of them judged best, according to truth and nature. As soon, therefore, as the marquis was informed that the apparatus was ready, he rushed suddenly into the room, having in his hand a cross-bow fixed for execution; and, with a countenance distorted with fury, cried aloud to the porter, 'Traitor! prepare for death! —you shall die instantly!'—As he approached, the porter, terrified, struggled, and strained every muscle, joint, and limb, to disengage himself, each line of his face expressing the agony of his mind. 'Now,' said the marquis to the painter, 'compare your two models; what he was yesterday, while unterrified; and what he is now, under the dread of execution; and do you determine which has most of nature, and which expression is most suitable to the situation of Sebastian.' The painter profited by the experiment, confessed the justice of the observation, altered his design, and improved it so much that it was allowed to be the finest of all his performances. Monsignori copied animals with astonishing accuracy, and excelled in perspective. He died in 1519.

MONSOON', *n. s.* Fr. *monson, monçon;* Arab. *monsom.*

The *monsoons* and trade winds are constant and periodical even to the thirtieth degree of latitude all around the globe, and seldom transgress or fall short of those bounds. *Ray.*

Monsoons are shifting trade winds in the East India Ocean, which blow periodically; some for half a year one way, others but for three months, and then shift and blow for six or three months directly contrary. *Harris.*

The *monsoons* in the Indian Ocean may be reduced to two, one on the north and another on the south side of the equator, which extend from Africa to the longitude of New Holland and the east coast of China, and which suffer partial changes in particular places from the situation and inflection of the neighbouring countries. *Thompson.*

MONSOONS. In the Indian ocean these winds are partly general, and blow all the year round the same way, as in the Ethiopic Ocean; and partly periodical, i. e. half the year blow one way, and the other half nearly on the opposite points: and these points and times of shifting differ in different parts of this ocean. These latter are what we call monsoons. The shifting of these monsoons is not all at once; in some places the time of the change is attended with calms, in others with variable winds, and particularly those of China, at ceasing to be westerly, are very apt to be tempestuous; and such is their violence that they seem to be of the nature of the West India hurricanes, and render the navigation of those seas very unsafe. These tempests the seamen call the breaking up of the monsoons. Monsoons take their name from an ancient pilot, who first crossed the Indian sea by means hereof: but others derive the name from a Portuguese word, signifying motion or change of wind and sea. Lucretius and Apollonius mention annual winds which arise every year, etesia flabria, which seem to be the same with what in the East Indies we now call monsoons. See WIND.

MONSTER, *n. s.* & *v. a.*
MONSTROS'ITY, *n. s.*
MONSTRUOS'ITY,
MON'STROUS, *adj.* & *adv.*
MON'STROUSLY, *adv.*
MON'STROUSNESS, *n. s.*
French *monstre, monstreux*; Latin *monstrosus.* An unnatural production; something physically or morally deformed, or unshapely, strange or wicked: Shakspeare uses it as a verb for to disorder, or put out of the common order of things: monstrosity and monstruosity are the state of being monstrous: monstrous is, strange; irregular; enormous; unusually hateful or shocking: as an adverb it is generally used in banter or reproach. The other derivatives explain themselves.

If she live long,
And, in the end, meet the old course of death,
Women will all turn *monsters.*
Shakspeare. King Lear.

Her offence
Must be of such unnatural degree
That *monsters* it. *Id.*

This is the *monstruosity* in love, that the will is infinite, and the execution confined. *Shakspeare.*

Is it not *monstrous* that this player here,
But in a fiction, in a dream of passion,
Could force his soul so to his conceit,
That, from her working, all his visage waned? *Id.*

He walks;
And that self-chain about his neck,
Which he forswore most *monstrously* to have. *Id.*

See the *monstrousness* of man,
When he looks out in an ungrateful shape! *Id.*

Such a tacit league is against such routs and shoals of people, as have utterly degenerated from nature, as have in their very body and frame of estate a *monstrosity.* *Bacon.*

This was an invention given out by the Spaniards to save the *monstrous* scorn their nation received. *Id.*

Oil of vitriol and petroleum, a dram of each, turn into a mouldy substance, there residing a fair cloud in the bottom, and a *monstrous* thick oil on the top. *Id.*

Methinks heroic poesie till now,
Like some fantastic fairy land did shew,
Gods, devils, nymphs, witches, and giants race,
And all but man in man's chief work had place.
Then, like some worthy knight with sacred arms,
Dost drive the *monster* thence, and end the charms.
Cowley.

In our bodies we find weakness, and imperfection, sometimes crookedness, sometimes *monstrosity*; filthiness, and weariness, infinite number of diseases, and an uncertain cure. *Jer. Taylor.*

Nature there perverse,
Brought forth all *monstrous*, all prodigious things,
Hydras, and gorgons, and chimeras dire. *Milton.*

This was the cause of that *monstrous* infidelity in the Israelites, which baffled all the methods which God used to persuade and convert them. *Barrow.*

These truths with his example you disprove,
Who with his wife is *monstrously* in love. *Dryden.*

Add, that the rich have still a gibe in store,
And will be *monstrous* witty on the poor. *Id.*

She was easily put off the hooks, and *monstrous* hard to be pleased again. *L'Estrange.*

It ought to be determined whether *monsters* be really a distinct species; we find, that some of these *monstrous* productions have none of those qualities that accompany the essence of that species from whence they derive. *Locke.*

Every thing that exists has its particular constitution; and yet some *monstrous* productions have few of those qualities which accompany the essence of that species from whence they derive their originals. *Id.*

Tiberius was bad enough in his youth, but superlatively and *monstrously* so in his old age.
South's Sermons.

We read of *monstrous* births, but we often see a greater *monstrosity* in education; thus, when a father has begot a man, he trains him up into a beast.
Id.

By the same law *monstrosity* could not incapacitate from marriage, witness the case of hermaphrodites.
Arbuthnot and Pope.

All human virtue, to its latest breath,
Finds envy never conquered but by death;
The great Alcides, every labour past,
Had still this *monster* to subdue at last. *Pope.*

No *monstrous* height, or breadth, or length appear,
The whole at once is bold and regular. *Id.*

A Monster is a birth or production of a living being, degenerating from the proper and usual disposition of parts in the species to which it belongs: as, when there are too many members, or too few; or some of them are extravagantly out of proportion, either on the side of defect or excess. Aristotle defines a monster to be a defect of nature, when, acting towards some end, it cannot attend to it, from some of its principles being corrupted. Monsters do not propagate their kind; for which reason some rank mules among the number of monsters, as also hermaphrodites. But Buffon and other naturalists affirm that mules do sometimes propagate. See Mule and Midwifery.

Monster is also used for an animal enormous for bulk; such as the elephant among terrestrial quadrupeds, and the shark and the whale among sea animals; for other animals remarkable for fierceness and cruelty; and for animals of an extraordinary species, arising from the copulation of one animal with another of a different genus.

Monsters, Vegetable. Monsters are more common in the vegetable than in the animal kingdom, because the different juices are more easily deranged and confounded together, and because the methods of propagation are more numerous. Leaves are often seen, from the internal parts of which other leaves spring forth; and it is not uncommon to see flowers of the ranunculus, from the middle of which issues a stalk bearing another flower. M. Bonnet informs us that, in certain warm and rainy years, he has frequently met with monsters of this kind in rose-trees. He saw a rose, from the centre of which issued a square stalk of a whitish color, tender, and without prickles, which at its top bore two flower-buds opposite to each other, and totally destitute of a calyx; a little above the buds issued a petal of a very irregular shape. Upon the prickly stalk, which supported the rose, a leaf was observed which had the shape of trefoil, together with a broad flat pedicle. He also mentions some monstrous productions which have been found in fruits with kernels, analogous in their nature to those which occur in the flowers of the ranunculus and of the rose-tree. He has seen a pear, from the eye of which issued a tuft of thirteen to fourteen leaves, very well shaped, and many of them of the natural size. He has seen another pear which gave rise to a ligneous and knotty stalk, on which grew another pear somewhat larger than the first. The lilium album polyanthos, observed some years ago at Breslaw, which bore on its top a bundle of flowers, consisting of 102 lilies, all of the common shape, is well known. These vegetable productions which are so extraordinary, and so contrary to the common course of things, nevertheless present deviations subject to particular laws, and reducible to certain principles, by distinguishing such as are perpetuated either by seed or by transplanting, from those which are only accidental and passing. Monstrosities which are perpetuated exist in the original organisation of the seed of the plant, such as marked or curled leaves, &c. The word monster is more properly applied to those irregularities in plants which arise from frequent transplantation, and from a particular culture, such as double flowers, &c.: but those monstrosities which are not perpetuated, and which arise from the accidental and transient causes deranging the primitive organisation of the plant, when it comes to be unfolded, from a superfluity or scarcity of juices, a depravation of the vessels contributing to nutrition, the sting of insects, or contusions and natural graffs, retain also the name of monsters. Of this kind are knobs or swellings, stunting, gall-nuts, certain streaks, and other similar defects. One species may be compared with another; but a monster can only be put in comparison with an individual of the species from which it comes. See the Observations Botaniques of M. Schlotterbec, of Basil, concerning monsters in plants.

MONT'ANT, *n.s.* Fr. *montant.* A term in fencing.

Vat be all you, one, two, tree, four, come for?
—To see thee fight, to see thee pass thy puncto, thy stock, thy traverse, thy distance, thy *montant.*
Shakspeare.

MONSTIER, Moutier, or Moustier, a town of France in the department of Mont Blanc, cidevant Savoy, near the conflux of the Isere and Doron. It was anciently called Forum Claudii, next Monasterium Centionum, from a monastery; hence Monstier. It has fine salt-springs and salt-works. It lies twenty-seven miles E. S. E. of Chambery, forty-five south-east of Geneva, and sixty-two north-west of Turin. Long. 6° 23′ E., lat. 45° 30′ N.

Monstier en Der, a town of France, in the department of Upper Marne, twelve miles from St. Dizier.

MONSTRELET (Enguerrand de), a famous chronicler of the fifteenth century, was born at, and governor of, Cambray. His History of his Own Times, from 1400 to 1467, was finished, as to the last fifteen years, by another hand. It contains a copious and faithful narrative of the contentions of the houses of Orleans and Burgundy, the capture of Normandy and Paris by the English, their expulsion, &c., and was published under the title of Chronique d'Enguerrand de Monstrelet, Gentilhomme, jadis demeurant à Cambrai, en Cambresis. The best edition is that of Paris, 1572, 2 vols. folio. He died in 1453.

MONTAGUE (Charles), earl of Halifax, was born in 1661. He was educated at Westminster and Cambridge, and quickly made great progress in learning. In 1685 he wrote a poem on the death of king Charles II., in which he displayed his genius to such advantage that he was invited to London by the earl of Dorset; and, upon his coming thither, he increased his fame, by a piece which he wrote in conjunction with Prior, published at London in 1687, entitled The Hind and the Panther transversed to the Story of the Country Mouse and the City Mouse. Upon the abdication of king James II. he was chosen a member of the convention, and recommended by the earl of Dorset to king William, who allowed him a pension of £500 a-year. Having given proofs of his abilities in the house of commons, he was made a commissioner of the treasury, and soon after chancellor of the exchequer. In 1698 he was appointed first commissioner of the treasury; and, in 1699, was created baron Halifax. In 1701 the house of commons impeached him of six articles, which were dismissed by the house of lords. He was attacked again in 1702, but without success. In 1705 he wrote An Answer to Mr. Bromley's Speech in relation to the occasional Conformity Bill. In 1706 he was a commissioner for the union with Scotland; and, upon passing the bill for the naturalisation of the house of Hanover, and for security of the Protestant succession, he was appointed to carry that act to Hanover. Upon the death of queen Anne, when king George I. had taken possession of his throne, his lordship was appointed first commissioner of the treasury, and created earl of Halifax and K. G. He died in 1715. His lordship wrote several other pieces, which, with some of his speeches, were published together in 1716, in 1 vol. 8vo.

Montague (Edward), earl of Sandwich, an illustrious Englishman, who, from the age of nineteen, united the qualifications of general, admiral, and statesman. He acted early against Charles I.; he persuaded Cromwell, whom it is said he admired, to take the crown; and he was zealous for the restoration of Charles II.! Upon general Monk's coming into England, he sailed with the fleet to Holland, and soon after he convoyed king Charles II. to England. For this service he was created knight of the garter, baron Montague, viscount Hinchinbrooke, and earl of Sandwich; made a member of the privy council, master of the king's wardrobe, admiral of the Narrow Seas, and lieutenant admiral to the duke of York. He performed some very essential services in the Dutch wars, and lost his life by refusing to quit his ship, after it was on fire. His body was interred with great state in Henry VII.'s chapel. His lordship's writings are, 1. The Art of Metals, translated from the Spanish of Alvaro Alonzo Barba, 8vo. 2. Several letters during his embassy to Spain, published with Arlington's letters. 3. A letter to secretary Thurloe. 4. Original letters and negociations of Sir Richard Fanshaw, the earl of Sandwich the earl of Sunderland, and Sir William Godolphin, wherein divers matters between England, Spain, and Portugal, from 1663 to 1678, are set in a clear light; 2 vols. 8vo.

Montague (lady Mary Wortley), was eldest daughter of Evelyn, duke of Kingston, and the lady Mary Fielding, daughter of William, earl of Denbigh. She was born at Thoresby in Nottinghamshire, about 1690. Under bishop Burnet she acquired considerable knowledge of the Greek, Latin, and French languages. In 1712 she married Edward Wortley Montague, who was sent ambassador to the Porte in 1716, whither she accompanied him. Here we find, from her correspondence, that she had added an acquaintance with the German, Italian, and Turkish languages to her other acquirements. After her return she introduced inoculation for the small-pox into this country, as she had seen it practised with success in the east. Her wit and literature led her to form intimacies with all the eminent poets and scholars of her brilliant era. Her health declining, in 1739, she went to Italy, where she remained till 1761, when her husband died. She then returned to England; but she survived him only till the 21st of August, 1762. In 1763 a collection of her letters was published, which had been surreptitiously obtained; but her grandson, the marquis of Bute, gave her entire works to the public, in 5 vols. 12mo. containing her Life, Letters, Translation of the Enchiridion of Epictetus, Poems, and Essays.

Montague (Edward Wortley), commonly known as the Turk, was the son of the preceding. From Westminster school, where he was placed for education, he ran away thrice. He exchanged clothes with a chimney-sweeper, and followed for some time that sooty occupation. He next joined a fisherman, and cried flounders at Rotherhithe. He then sailed as a cabin-boy to Spain; where he had no sooner arrived than he ran away from the vessel, and hired himself to a driver of mules. After thus vagabondising it for some time, he was discovered by the consul, who returned him to his friends in England. They received him with joy, and a private tutor

was employed to recover those rudiments of learning which a life of dissipation and vulgarity might have obliterated. Wortley was sent to the West Indies, where he remained some time; and on his return to England was chosen a member of parliament, and served two successive sessions. His expenses exceeding his income, he became involved in debt, and quitted his native country. Having visited most of the eastern countries, he contracted a partiality for their manners. He drank little wine; a great deal of coffee; wore a long beard; smoked much; and, even whilst at Venice, was habited in the eastern style. He sat cross-legged in the Turkish fashion from choice. With the Hebrew, the Arabic, the Chaldaic, and the Persian languages, he was as well acquainted as with his native tongue. He published several pieces. One on the Rise and Fall of the Roman Empire. Another on the Causes of Earthquakes. He had seraglios of wives; but the lady whom he married in England was a washerwoman, with whom he did not cohabit. When she died without leaving issue to him, being unwilling that his estate should go to the Bute family, he set out for England to marry a young woman already pregnant, whom a friend had provided for him; he died on his journey.

Montague (Richard), D.D., a learned English prelate, born in Bucks, about 1577, and educated at King's College, Cambridge, of which he became fellow. In 1616 he was made dean of Hereford; and in 1621 published an answer to Selden's History of Tithes. He afterwards engaged in a controversy with the Papists, and published a piece, entitled Appello Cæsarem, for which he was summoned before the house of commons, in the first parliament of Charles I., and subjected to £2000 bail. The king, however, made him bishop of Chichester in 1628, and translated him to Norwich in 1638, where he died in 1641. Besides controversial tracts, such as An Answer to the Gagger of the Protestants, in 1624, &c.; he wrote several learned works, on the doctrines and discipline of the church.

Montague (John), fourth earl of Sandwich, born in 1718, studied at Eton, whence he removed to Trinity College, Cambridge. He set out on his travels at about twenty years of age, and visited Sicily, Malta, Turkey, and Egypt, bringing home a valuable collection of antiquities, particularly a marble vase obtained at Athens, which he presented to Trinity College. An account of his Voyage round the Mediterranean, drawn up by himself, with memoirs of his life, by the Rev. J. Cooke, was published after his death, in 1799, 4to.; a second edition appeared in 1807. On his return home he became a lord of the admiralty; and in 1746 was despatched as minister plenipotentiary to the congress of Breda. He was engaged also in negociating the peace of Aix-la-Chapelle, and on his return to England was made first lord of the admiralty. Though removed in 1751, he twice afterwards held the same office, and died in 1792.

Montague Island, an island in the North Pacific Ocean, near the west coast of North America, about fifty miles long, and ten broad, and situated at the west side of the en into Prince William's sound. Long. 1 148° W., lat. 59° 50′ to 60° 30′ N.

MONTAIGNE (Michael de), a French tleman, born in Perigord in 1533. His educated him with great care, and mad learn Latin as other children learn their n tongue. His tutors were Nicholas Gronchi wrote De Comitiis Romanorum; William renti, who wrote on Aristotle; George B nan; and Anthony Muret. He was also t Greek by way of recreation; and was awal every morning with the sound of music. was a counsellor in the parliament of Bourd and afterwards mayor of Bourdeaux. He lished his celebrated Essays in 1580. H a great deal of wit and subtlety, but no share of conceit and vanity. The learne much divided in their opinions about his w He died in 1592.

MONTALEMBERT (Marc Rene, ma de), a French general and mathematician born at Angouleme in 1714. At the a eighteen he entered the army; was at the of Kehl in 1733, and at that of Philipsb the following year. He afterwards serv Bohemia, and at the peace devoted himse the study of the exact sciences. He const in Anjou and Perigord forges for casting ca In the seven years' war he was on the st Russian and Swedish armies. In 1761 h nounced his celebrated work on Fortifie which the government prevented him from co ting to the press for some years. It is en L'Art defensif superieur à l'offensif, par une velle maniere d'employer l'Artillerie, ou la fication Perpendiculaire, Paris, 1793, 11 vol He was besides the author of several pap the Memoirs of the Academy of Science other works. His death took place in 180

MONTANINI (Peter), or Petruccio Perr an eminent landscape painter, born at Pe in 1619. At first he was instructed by his Peter Barsotti; but was afterwards placed disciple with Ciro Ferri. Yet he did not adhere to the manner of either of these ma choosing to study under Salvator Rosa; w style he imitated with great success. His scapes were much admired; the rocks, tor and abrupt precipices, were designed spirit; and his figures had very uncon correctness, propriety, and elegance. He in 1689.

MONTANISTS, a sect which sprun about A.D. 171, in the reign of the em Marcus Aurelius. They were so called their leader, the heresiarch Montanus, a gian by birth; whence they are sometimes Phrygians and Cataphrygians. They for schism, and set up a society under the dire of those who called themselves prophets. tanus, in conjunction with Priscilla and milla, was at the head of the sect. sectaries made no alteration in the creed. only held, that the Holy Spirit made Mon his organ for delivering a more perfect fo discipline than what was delivered by the tles. They refused communion for ever to who were guilty of notorious crimes, and

lieved that the bishops had no authority to reconcile them. They held it unlawful to fly in time of persecution. They condemned second marriages, allowed the dissolution of marriage, and observed three lents. The Montanists became separated into two branches; one of which were the disciples of Proclus, and the other of Æschines. The latter are charged with following the heterodoxy of Praxeas and Sabellius concerning the Trinity. See MONTANUS.

MONTANUS, a heretic of the second century, born in Phrygia. He embraced Christianity, in hopes of rising to the dignities of the church. He pretended to inspiration; and gave out that the Holy Ghost had instructed him in several points, which had not been revealed to the apostles. Priscilla and Maximilla, two enthusiastic women of Phrygia, presently became his disciples; and in a short time he had a great number of followers. The bishops of Asia, being assembled, condemned his prophecies, and excommunicated those who dispersed them. Afterwards they wrote an account of what had passed to the western churches, where the pretended prophecies of Montanus and his followers were likewise condemned.

MONTANUS (Benedict Arias), a learned Spanish theologian, born in the diocese of Badajoz, about 1528. He assisted at the council of Trent with great reputation; and his merit and writings recommended him to Philip II. of Spain, who employed him in publishing a new polyglot bible after the Complutensian edition, which was printed under the care of cardinal Ximenes. This bible was printed at Antwerp, whither Montanus went in 1571; and on his return to Spain he refused the bishopric which Philip offered him for his reward, but spent the rest of his days at Seville, where he died about 1598. Montanus had vast erudition, loved solitude, was very laborious, never drank wine, and seldom ate flesh.

MONTANUS (John Baptist), an eminent Italian physician, styled the Galen of his country. He was born at Verona, in 1488; and studied at Padua, where he displeased his father by preferring physic to law; but, though deprived of his assistance, he soon made such progress that he was promoted to the professor's chair at Padua, after having practised physic with great success in several other cities. His fame became so great that he was invited to Paris, Florence, and Vienna, by Francis I., duke Cosmo, and Charles V., but preferred his professorship at Padua; where he died of the stone, in 1551. He wrote many medical and some poetical works.

MONTARGIS, an ancient town of the department of the Loiret in France, and the principal place of a subprefecture of the same name. It has an inferior court of judicature, and a chamber of commerce, and is a post town with 6500 inhabitants. Pleasantly situated near a beautiful forest, at the foot of a mountain, on the river Loing, where it forms a junction with the canals of Briare and Orleans. This town is surrounded with walls, and rather badly built, though its general appearance is pleasing. It was in ancient times a very strong place, and defended by a good castle; the English besieged it without success in 1427, but in 1431 they took it, and it remained in their possession until 1438. The inhabitants manufacture common cloths, cotton yarn, and leather, and in the suburbs there are some fine paper-mills. A considerable trade is carried on in corn, wine, saffron, wax, honey, wool, leather, iron, and cattle. The church of the Magdalen is remarkable for the beauty of its architecture, and the boldness and loftiness of its pillars. This town is fifty-one miles E. N. E. of Orleans, thirty-nine south of Fontainebleau, and eighty-four south of Paris.

MONTAUBAN, a large and handsome city, the principal place of the department of the Tarn-et-Garonne in France, having a royal court at Toulouse, an inferior court of judicature, a chamber of commerce, a board of trade, societies of arts and sciences, agriculture, and belles lettres, a faculty of theology belonging to the reformed church, a communal college, and a free drawing school. It is a post town with 25,000 inhabitants.

This city stands in a fine situation, on a hill at the foot of which flows the Tarn, dividing the town into several parts, and working a great number of manufacturing establishments for the making of coarse cloth, serge, flannel, silk stockings, soap, pasteboard, and delf ware, brandy distilling, wool spinning, cloth dressing, dying, brass founding, tanning, &c. Its appearance is magnificent, its air wholesome, and the suburbs present a most agreeable scene, with pleasant country houses scattered on all sides over a verdant country. It is generally well built, and the streets are extremely clean. The public edifices are respectable, particularly the cathedral, built in 730, and the town-hall; the architecture of the town gates is very fine, and there are two beautiful walks, the Allée de Carmes, and the superb avenue de Coussarde, besides a fine platform, from which, in clear weather, there is a most beautiful view of the Pyrenees, which are more than 150 miles distant.

Montauban was built in 1144, by Alphonso, earl of Toulouse, near the ancient monastery of Mons Albanus. The inhabitants, having embraced the reformed religion, fortified it; it was besieged by Louis XIII. in the year 1622, but without success, and it did not submit till 1629, when its fortifications were soon afterwards destroyed by order of cardinal Richelieu. In the reign of Louis XIV. it was depopulated by the dragonnades, and in 1815 it suffered much from a persecution raised against the protestants by an infuriated and bigotted rabble.

A considerable trade is carried on here in corn, flour, leather, cloth, wool, oil, goose-feathers, drugs, and spices; this place is indeed the mart of several towns of the kingdom, especially for grain. Among the objects worthy of particular notice are the fountain of Grison, and the public library containing 10,000 volumes. It is thirty-nine miles south of Cahors, sixty west of Alby, forty north of Toulouse, and 505 south of Paris; in N. lat. 44°, E. long. from Paris 1°.

MONTBELIARD, a post town, with 4500 inhabitants, and the chief place of a subprefecture of

the same name, in the department of Doubs, France, having an inferior court of judicature, and a communal college. This town is pleasantly situated in the centre of a valley, covered with meadows, watered by the Halle and the Luzine, and surrounded by hills, woody and planted with vines. It is generally well built, and the streets airy and adorned with fountains, while on an elevated rock stand the ruins of a castle, which in ancient times commanded the town, and from which there is a very fine view of the adjacent country. The walls were rased in 1677 by order of Louis XIV. This is the native place of Cuvier, the celebrated naturalist.

There are manufactures here of clocks, pendulums, watch springs, iron and steel wire for clocks, silk hats, linen, cloth, scythes, agricultural instruments, &c. The inhabitants trade in corn, spices, cheese, &c.; and this place is the centre of considerable commerce with Switzerland. Among the public places may be mentioned the library containing 8000 volumes, the town hall, the church of St. Martin eighty feet long, and fifty broad, the market house, &c. Montbeliard is sixty-four miles north-east of Besançon, thirty-nine east of Vesoul, and 101 E.S.E. of Paris.

MONT BLANC. See BLANC, MONT.

MONTBRISON, a small, but ancient town, the principal place of a subprefecture of the same name, in the department of the Loire, France. It is a post town, containing 5000 inhabitants, with an inferior court, a communal college, and a society of agriculture and commerce. Its royal court is at Lyons. It stands in the midst of a fertile plain, commanded by a volcanic rock of a picturesque form, from the top of which the barbarous baron of Adrets forced the catholics, whom he had made prisoners, to precipitate themselves upon the points of the crags, with which the base is environed. It is generally ill-built, and the streets close; but, though not so populous and commercial as several other places in the department, its situation is very advantageous for the establishment of manufactories: the river Vizezy, which descends from the mountains and flows through the town, furnishing at all times of the year a sufficient supply of water for such purposes. In the neighbourhood are some mineral springs of considerable celebrity, and a few remains of Roman antiquities. There are manufactures here of linens, lawns, and cambrics, and a trade is carried on in corn, wool, and cattle.

Among the public institutions and buildings may be mentioned the fine library, the corn market, and the assembly room; the departmental nursery, and the newly planted boulevards, are also worthy of notice. This town is forty-three miles south of Roanne, fifty-eight W.S.W. of Lyons, the same distance north-west of St. Etienne, and 367 south-east of Paris, in N. lat. 45° 36′, and E. long. from Paris 1° 44′.

MONT-DE-MARSAN, a well-built town, the chief place of a subprefecture, in the department of the Landes, France, having an inferior court of justice under the royal court of Paris, an agricultural society, a society of arts and sciences, and a communal college. It is a post-town, containing 3000 inhabitants, standing on an eminence, in a sandy plain, well cultivated and shaded with fine trees, at the confluence of the Douze and the Midon. This place has been much enlarged and embellished since the division of France into departments. The streets are clean and airy, adorned with several public fountains. A bridge thrown over the Douze, which begins to be navigable here, the prefect's palace, the barracks, and a court house built within these few years past, give it an importance to which it had few pretensions before the end of the last century; and it is surrounded with magnificent avenues and walks recently planted. There are some mineral waters here that are held in estimation. Manufactures are carried on of counterpanes, coarse cloths, linen for veils, and tanning. The trade of the town consists in the produce of the neighbourhood. It is the mart of commerce of Bourdeaux and Bayonne for wines, brandy and wool being furnished by the adjacent departments. There is a public library containing 12,000 volumes, an establishment of baths, and a bridge over the Midouze. Mont-de-Marsan is situated in 2° 49′ E. long. from Paris, lat. 43° 54′ N. Eighty-four miles south from Bourdeaux, eighty-seven north-east of Bayonne, and 570 south-west from Paris.

MONTDIDIER, an ancient town of the department of the Somme in France, and the chief place of a department of the same name, having an inferior court of justice, a board of trade, an agricultural society, and a communal college. It is a post town, with 4500 inhabitants; and is built upon a hill near the river Don. It was formerly fortified, and the residence of several of the kings of France in the twelfth century. Some remains of its ancient fortifications are still to be seen. This is the native place of Parmentier, the celebrated political economist. The inhabitants carry on the manufacture of hats, calicoes, serge, and stockings; they have also cotton spinning factories, dye-houses, tan-yards, and curriers' shops; and trade in corn, vegetables, cattle, coal, and turf. This town is twenty-seven miles S.S.E. of Amiens, and sixty-nine north of Paris.

MONT-D'OR, a small chain of mountains, reaching from the Puy-de-dome to the gates of Lyons, and peopled with many villages the country round, which is excellently cultivated. There are fine pastures on them, feeding numerous herds of cows and goats, the latter of which yield the richest milk, of which fine cheeses are made, known by the name of Mont-d'or cheeses. These goats, to the number of from 18,000 to 20,000, are fed in the stable all the year round, and their hair is very valuable.

MONT-D'OR (the), one of the highest mountains in the department of Puy-de-Dome, which gives a name to a mass of mountains situated in the Lower Auvergne, about sixty miles in circumference. It is celebrated for its hot baths, which are supplied by springs that issue from the mountain of Puy-de-l'Angle, and is 3000 feet above the village of the baths, and 8868 feet above the level of the sea. Above the village a magnificent valley opens from south to north, of nearly five miles long and one broad, through which runs the Dordogne, along cultivated lands

and smiling pastures; it is closed in at its upper extremity by a semicircle of lofty peaks. Two of these are particularly worthy of attention, one of them being furrowed with the most frightful raviues, and the other opposite to it presenting an enormous volcanic rock, on which are elevated a number of immense basaltic prisms. On the other side it is enclosed by eminences, among which towers Mont-d'or, giving to the whole an air of grandeur and majesty seldom seen. In the midst of the ravines rises the uppermost peak, supporting a bank of lava, from which a cascade precipitates itself, the waters of which form the small river that crosses the valley; the red bottom of the ravine rendering more brilliant the silvery whiteness of the stream. This rich scene would be admired even separate from the objects that surround it; but here it delights the beholder, placed as it is in the centre of the valley, and forming the crowning feature of a magnificent picture. From the top of this noble eminence the Alps are visible, and its summit may be seen from Nevers, which is ninety miles distant, and even from Montauban, at the distance of 120 miles.

This mountain takes its appellation from a little brook called the Dor, which rises near the source of another called the Dogne; these two streams, after their union, form the river called the Dordogne. On the top, in the crater of an old volcano, is a lake called Paven, the waters of which are very clear, and at least 288 feet deep; it is surrounded with a curtain of verdure of 120 feet wide, which delightfully crowns its brink on every side. This enclosure, which is on a precipitous slope, is covered with short grass, and the greater part with wood; and, from a gap in the crater, the waters of the lake burst forth, flowing over a bed of lava, and precipitating itself into a channel, which it has hollowed out on the declivity of the mountain, until it reaches the vale that is crossed by the Couse, when it falls with that river into the Allier, between the Brionde and the Allier.

Mont-D'or, or Monte Rotondo, a high mountain of Corsica, situated almost in the centre of the island. From its summit the whole extent of Corsica may be seen, as well as the Sardinian coast, the Mediterranean, and several of its islands; while, in the distance, France and Italy are visible. It is covered with snow during a great part of the year.

MONT-D'OR-LES-BAINS, a small town in the arrondissement of Issoire, department of the Puy-de-Dome, situated in the midst of a group of mountains, abounding in mineral springs and medicinal plants, and famous for its establishment of warm baths. The springs which supply these baths rise in the mountain called Puy-Del'Angle, whence the waters issue in great quantities from different openings. The first, called St. Margaret's, pours its waters into a freestone basin, not far from which is another spring, more abundant, but of the same quality. The second, called Cesar's bath, rises a little below the top of St. Margaret's mountain, the small building, which receives its waters, being of a very high antiquity. The third, called the great bath, a short distance from the last, is contained within a square building of Gothic architecture. The fourth spring, called the Magdalen's, rises at the bottom of the Angle mountain, and flows into a modern square building, in the middle of the Place-du-Pantheon, and is universally resorted to by those who come to drink the waters. A large building, recently erected by government, unites within its enclosure all these springs, and is divided into three parts, affording accommodations for all classes. In the front of this establishment is a newly made walk, planted with trees, at the lower end of which flow the united streams of the Dor and the Dogne. In the year 1825 a grant was made from the public purse of 100,000 francs for the building of a hospital on Mont-d'or, in which the poor may receive gratuitously all the succors of nature and art. Two of the springs are cold, and are generally used for drinking; they are particularly suitable for persons afflicted with pulmonary consumption; the temperature of the warm waters does not exceed 37°; they are used in baths, and produce excellent effects on gouty and rheumatic persons. The season for taking the waters commences on the 25th of June, and continues till the 20th of September. The fine roads that lead to this place render the communications safe and easy. It is twenty-seven miles south-west of Clermont, thirty-six west of Issoire, and twenty-one south-east of Rochefort.

MONTE Christi, a cape, bay, and town on the north side of the island of St. Domingo. The cape is a high hill, situated in long. 71° 44 W., lat. 19° 54′ N. On doubling the cape, the bay extends in a south-west direction, and contains a small island of this name. The town, which was formerly large, is now but a poor place. Population of the town and territory 3000.

MONTECUCULI (Raymond), generalissimo of the emperor's army, and one of the greatest commanders of his time, was born in Modena, of a distinguished family, in 1608. Ernest Montecuculi his uncle, who was general of the artillery in the imperial army, resolved that he should serve first as a common soldier, and that he should pass through all the military degrees before he was raised to command. This he did with applause. In 1644, when he was at the head of a party of 2000 horse, he surprised by a precipitate march 10,000 Swedes, who laid siege to Nemessau in Silesia, and obliged them to abandon their artillery and baggage; but soon after he was defeated and taken prisoner by general Banier. Having obtained his liberty, at the end of two years, he joined his troops to those of John de Wert; and defeated general Wrangel in Bohemia, who was killed in the battle. In 1657 the emperor made him general marshal de camp; and sent him to the assistance of John Casimir, king of Poland. Montecuculi vanquished Ragotzi prince of Transylvania, drove out the Swedes, and distinguished himself in an extraordinary manner against the Turks in Transylvania and Hungary. In 1673 he commanded the imperial army against the French, and took Bonne: he then proceeded with feint marches to deceive Turenne, in which he obtained great honor. However, the command of that army was taken from him in 1674, but

was restored to him in 1675, that he might make head against the great Turenne. All Europe had their eyes fixed on these two able warriors, who then made use of all the stratagems which genius and military knowledge were capable of suggesting. Marshal Turenne was obtaining the superiority when he was taken off by a cannon ball. Montecuculi wept at the death of so formidable an enemy, and bestowed upon him the greatest praises. The great prince of Conde, being the only remaining French general fit to oppose Montecuculi, was sent to the Rhine, and stopped the imperial general; who considered this last campaign as the most glorious of his life, not from his being conqueror, but for his not being conquered, when he was opposed by a Turenne and a Conde. He spent the rest of his life at the imperial court; and died at Lintz in 1680. He wrote Memoirs; the best edition is that of Strasburg, in 1735.

MONTEGO BAY, a sea-port town on the north coast of Jamaica, in a bay of the same name. It was made a legal port in 1758, and is now a flourishing town, with about 250 houses. In 1795 it was greatly damaged by an earthquake. The loss sustained amounted to £200,000. 150 vessels clear out here annually. Long. 77° 50′ W., lat. 18° 29′ N.

MONTE LEONE, a large town of Naples, in Calabria Ultra, near the gulf of Eufemia: though almost overthrown by the earthquake of 1783, its present population is 8000, and it has manufactures of silk, and is the see of a bishop. Twelve miles N. N. E. of Nicotera, and twenty-five south-west of Squillace.

MONTELIMART, a well built town of the department of the Drome, and the principal place of a subprefecture, having an inferior court of judicature and a communal college. It is a post town, with 6500 inhabitants, situated at the foot and on the side of a hill near the confluence of the little rivers Roubion and Jabron, which, after uniting their streams just below its walls, mingle with the waves of the majestic Rhone. It is overlooked by an ancient castle, and surrounded with rich and fertile plains, and hills abounding in vines, mulberry trees, olives and orange trees, which grow here in the open field. Environed and intersected by various canals, this town offers great advantages for the establishment of manufactories. Round the walls both within and without there is a double road, by which carriages may make the entire circuit of the town. Four gates form an entrance to it, which front the four cardinal points of the compass. Manufactures are carried on here of linens, liqueurs, baskets, tanned leather, and highly esteemed morocco. There is also a considerable commerce in grain, flour, vegetables, fruit, wax, honey, walnut, and olive oil, silk wrought and in twist, earthenware, cattle, &c. This is the mart of forty or fifty towns, which bring hither their fruits and provisions and other produce of their industry. In the valley below the town the system of irrigating the meadows is carried to a degree of perfection that deserves particular attention. There is in this town a library of 3000 volumes. Faujas de St. Ford, the learned geologist, was born here. It is thirty-six miles south of Valence, and 472 south-east of Paris.

MONTELOVEZ, a city of Mexico, the capital of Cohahuila, is situated on a small stream, and is about a mile in length; having two public squares, seven churches, powder magazines, mills, and a hospital. It is the principal military depôt for the provinces of Cohahuila and Texas, and its population is about 3500.

MONTEM. The origin of the singular custom celebrated at Eton school every third year, on Whit Tuesday, cannot be satisfactorily ascertained, but the custom itself seems to have been coeval with the foundation of the college.

The procession is made to a tumulus, near the Bath road, which has acquired the name of Salt-hill. The chief object of this ceremony, which has of late years been conducted with more decorum than formerly, is to collect money for salt, as the phrase is, from all persons travelling on the road. The scholars who collect the money are called salt-bearers, and are dressed in rich silk habits. 'Tickets, inscribed with some motto, by way of pass word, are given to such persons as have already paid for salt, as a security from any further demands. The procession has been frequently honored with the presence of his majesty and the royal family, whose liberal contributions, added to those of many of the nobility and others, who have been educated at Eton, and purposely attend the meeting, have so far augmented the collection, that it has been known to amount to more than £800. The sum so collected is given to the senior-scholar, who is going off to Cambridge, for his support at the university.'—*Lysons's Magna Britania.*

MONTENEGRO, a mountainous district of Greece, having Albania to the south, and the province of Herzegovina to the north. Its territorial extent is about 3000 square miles, surrounded by a chain of lofty mountains. The interior contains very little level ground; but is occasionly enlivened with beautiful verdant plains. The soil is altogether pretty fertile, but agriculture is sadly neglected. The common objects of culture are, corn, potatoes, and vegetables: but the chief subsistence of the inhabitants are their flocks and herds. It is calculated that 120,000 sheep, large quantities of cattle, and about 300 tons of cheese, are exported annually. Fishing in the rivers and lakes is also a large source of support. Game is abundant; and the timber of the forests valuable; though but little present advantage is derived from it.

The inhabitants are a rude, courageous, and independent race; their friendships are firm and inviolable, and their hospitality frank.

Though included in the pachalic of Scutari, Montenegro has for more than a century withdrawn its allegiance from Turkey: it can bring into the field 10,000 fighting men, and, calculating on the aid of allies, the farther number of 5000. The country takes the name of Montenegro, or, as it is called by the natives, Czerna-Gora, from the dark appearance of its forest-covered mountains. There are seven small towns, each with nearly 2000 inhabitants: and 110 villages. Inhabitants altogether about 40,000.

MONTEREAU-FAULT-YONNE, an ancient town and chief place of a canton in the department of the Seine-et-Marne, France. It is a post town, with 4000 inhabitants, very pleasantly

situated at the confluence of the Yonne and the Seine, over which there is a very fine bridge. On this bridge Jean-sans-peur, duke of Burgundy, was assassinated in 1419, and in 1814 the French, commanded by Napoleon, obtained a victory over the allied powers. There are some earthenware potteries in this town, and some tan-yards. A considerable trade is carried on in corn and cattle for the Paris market, for which the Yonne and the Seine afford great facilities. Near the town on the top of a hill stands the chateau of Surville, a fine building in the form of a crescent commanding a view over the whole town, the plain round it, and the surrounding roads.

MONTE'RO, *n. s.* Span. *montero.* A horseman's cap.

His hat was like a helmet, or Spanish *montero.*
Bacon.

MONTESQUIEU (Charles de Secondat), baron, a celebrated French writer descended from a noble family of Guienne, and born at the castle of Brede, near Bourdeaux, in 1689. He showed an early genius, and at the age of twenty had prepared materials for his Spirit of Laws, by well digested extracts from those immense volumes of civil law which he had studied. He became a counsellor of the parliament of Bourdeaux in 1714, and in 1716 was received president a mortier. In 1721 he published his Persian Letters; in which, under the screen of Oriental manners, he satirized those of France. He was received into the French Academy in 1728; and, having quitted his civil employments, he travelled through Germany, Italy, Switzerland, Holland, and England, in which last country he resided three years. On his return he retired for two years to his estate at Brede, where he finished his work On the Causes of the Grandeur and Declension of the Romans; which appeared in 1734. The reputation acquired by this work only cleared the way for his great undertaking, the Spirit of Laws, which was printed at Geneva, in 2 vols. 4to. 1750. This was immediately attacked in a multitude of anonymous pamphlets. Montesquieu drew up a defence of it; which for moderation, and elegance of satire, may be regarded as a model. He died in Paris on the 10th of February, 1755. His conversation was spirited, agreeable, and instructive. Beside the above works, he wrote several small pieces, as the temple of Gnidus, Lysimachus, and an Essay upon Taste, which is left unfinished. His works have been collected since his death, and printed in Paris in a splendid edition, in 4to.; and have all been translated into English.

MONTETH', *n. s.* From the name of the inventor. A vessel in which glasses are washed.

New things produce new words, and thus *Monteth*
Has by one vessel saved his name from death.
King.

MONTE VIDEO, a town of South America, in the province of Buenos Ayres, situated on the north side of the river Plata, in a small bay, twenty leagues west of Cape Santa Maria, and entirely walled round. It derives its name from a mountain that overlooks the place, and on which is a light-house. The town is described by Mr. Caldcleugh, who was here in 1821, as indifferently built, on a slope to the river; the houses are flat roofed, and formed in part of stone and burnt brick; the windows to the street strongly barricadoed. The streets had been lately paved by the Portuguese troops in the occupation of the town, at the expense of the inhabitants. There was, nevertheless, an air of desolation about them, which did not accord with the reported prosperity of the town. The cathedral presented an appearance but little imposing. It was thronged with ladies dressed in black, after the fashion of the country; and it was impossible not to be struck with their great personal charms.

'They were kneeling at their devotions on pieces of carpet, carried thither by their female servants, another proof that I had arrived in a more cleanly country, for this custom is not yet adopted in the north: the numbers of well dressed females in the streets was also a novel sight. In the evening I attended the play, and was introduced by one of the governor's staff to all the most celebrated beauties of the city, who were extremely polite, and, according to custom, pressed me to eat more sweatmeats than I could have wished. The theatre was small and ill-arranged; the actors, it may be supposed, not of the best. One of the farces exhibited, El Inglez con Splin, gave rise to many good natured, yet witty observations from the ladies, on our national character.

'During the winter months of June, July, and August, Montevideo enjoys,' according to this writer, 'a cool climate. The soil is productive, yielding remarkably fine wheat, beans, and Indian corn, with melons, and some of the fruits of Europe, such as apples and peaches, in abundance. The extensive plains are still covered with herds of cattle and horses, although not to the extent formerly the case; a circumstance to be attributed to the disturbed state of the country, previous to its occupation by the Portuguese. The principal objects of exportation are tallow and hides to England, and jerked beef to Brasil. Since the restoration of tranquillity the trade has considerably increased: such at one time was the unsettled state of Buenos Ayres, that it was more advisable to land cargoes at Montevideo and pay a regulated duty, than run the risk of a difficult navigation of 100 miles, and then pay an extravagant demand for customs, or a proportion of the cargo, for the expenses of smuggling. The chief imports are manufactured goods from England, and the products of a warmer climate, such as coffee and sugar from Brasil. The population has been rated at as much as 15,000 souls; but of late years it has decreased, from the unsettled state of the country. It scarcely reaches 10,000 at present, comprising a small proportion of blacks. The bay is protected by the Mount; and, although the water is occasionally low, yet, from the nature of the bottom, a soft mud, no mischief occurs by heavily laden vessels approaching the shore, and taking the ground. It is decidedly the best harbour in the river.

In 1806 the British force, which was despatched to make an attack on the Spanish territories in this quarter, took Monte Video by assault, after a desperate conflict and a heavy loss, one-third of

the troops engaged having been either killed or wounded. After the unsuccessful attack of Buenos Ayres by the British, in 1807, Monte Video was evacuated with all the other Spanish settlements. 120 miles E. N. E. of Buenos Ayres.

MONTEZUMA, or MONTEÇUMA, was emperor of Mexico when Cortez invaded that country in 1518, and obliged him to acknowledge himself in public the vassal of Charles V.; in name of tribute for which homage, Cortez received 600,000 merks of pure gold. Montezuma soon afterwards fell a sacrifice to his submission to the Spaniards. He and Alvaro, the lieutenant of Cortez, were besieged in the palace by 200,000 Mexicans. The emperor proposed to show himself to his subjects, that he might persuade them to desist from the attack: but the Mexicans no longer considered him in any other light but as the slave of foreign conquerors. In the midst of his speech, he received a blow with a stone, and he expired soon after, A. D. 1520. See CORTES and MEXICO. This unfortunate prince left two sons and three daughters, who embraced the Catholic faith. The eldest son obtained from Charles V. lands, revenues, and the title of count de Montezuma.

MONTFAUCON (Bernard de), a learned Benedictine of the congregation of St. Maur, famous for his knowledge of Pagan and ecclesiastical antiquities, was born of an ancient and noble family in Languedoc, in 1655. He served for some time in the army; but on the death of his parents, in 1675, he commenced Benedictine monk and applied himself to study. Though his life was long, healthy, retired, and laborious, his voluminous publications seem sufficiently to have employed the whole; exclusive of his greatest undertaking, for which he will be always memorable. This was his Antiquité expliqué, written in Latin and French, illustrated with elegant plates, in 10 vols. folio; to which he added a supplement of 5 vols. He died at the abbey of St. Germain in 1741.

MONTFERRAT, a duchy of Northern Italy, and a part of the Sardinian states, is bounded by Piedmont, Genoa, and the Milanese. Its territorial extent is 900 square miles, containing a number of hills and small mountains. The climate is very salubrious, and the soil productive in corn, wine, vegetables, fruit, chestnuts, flax, and hemp. It has likewise extensive and well-stocked pastures. It is watered by the Stura, the Bormida, the Belbo, the Orba, the Erro, and the Po. Here are four towns of tolerable size, Casale, Acqui, Alba, and Trino, and nearly 180 small towns and villages. Besides the labors of agriculture the inhabitants employ themselves in silk-spinning and other domestic manufactures. The duchy is divided into the two provinces of Acqui and Casale. Population 186,000.

MONTFORT (Simon), count de, descended from an illustrious and flourishing family, was lord of a small town of the same name ten leagues from Paris. He was one of the greatest generals of his age, and he displayed his bravery in the wars with the English and Germans. The strength of his constitution enabled him to support the severest labors of the field, and his majestic stature distinguished him in battle. In the greatest dangers he possessed the utmost coolness and presence of mind: he observed every emergency; and was ready to bring assistance, while he himself was employed in attacking the bravest of his enemies; but he was guilty of great cruelties after victory. He was appointed to conduct the crusades against the Albigenses in 1209. He took Bezieres and Carcassonne, raised the seige of Castalnau, and gained a great victory in 1213 over Peter king of Arragon, Raimond VI. count of Toulouse, and the counts of Foix and Cominges. He was killed at the siege of Toulouse on the 25th of June 1218 by a stone thrown by a woman. His younger son afterwards made a great figure in England as earl of Leicester.

MONTGERON (Lewis Basil Carre de), was born at Paris, A. D. 1686. His father was master of requests. He was scarcely twenty-five years of age when, he purchased the place of counsellor in parliament, where by his wit and external qualifications he gained considerable reputation. He was given up to irreligion and vice, when in 1731, he was converted by witnessing, according to his own account, miracles at the tomb of Deacon Paris. He had not long been the disciple of Jansenism when he suffered persecution. When the chamber of inquests was banished, in 1732, he was sent into the mountains of Auvergne, where he collected the proofs of the miracles wrought at abbé Paris's tomb, and composed a Demonstration of them, which in 1737 he presented to the king at Versailles, and for which he was confined till his death in 1754.

MONTGOLFIER (Stephen James), the celebrated aëronaut, was a native of Amiens. He was first a paper-manufacturer at Annonay, where in conjunction with his brother in 1782 he made the first known experiments in AERONAUTICS, see that article. He also invented a kind of vellum paper, for which he was rewarded with a pension and the order of St. Michael. He died in 1799, at the age of fifty-two.—Joseph Montgolfier his brother was the inventor or improver of a machine which he denominated the hydrostatic ram, and died at the baths of Balaruc, whither he had gone for the benefit of his health, in June 1810, in his seventieth year.

MONTGOMERY (James), lord of Lorges in the Orleannois, one of the bravest men of his age and famous under the title of Loges in the wars of Francis I. In 1545 he succeeded John Stuart count d'Aubigny in the command of the 100 archers in the Scotch guard. He wounded Francis I. in the chin with a firebrand, in some frolic with that prince, and thus occasioned the wearing of long beards in France for fifty years. Loges died aged above eighty, a short time after Henry II. He obtained the title of count de Montgomery in 1553, which he claimed as belonging to his ancestors, and as being descended by the earls of Eglinton in Scotland, from a younger son of the ancient house of Montgomery in England.

MONTGOMERY (Gabriel de), count Montgomery in Normandy, the son of the preceding, was remarkable for his valor and noble achievments, but still more so for occasioning the death of Henry II., by accidentally wounding him in the eye at a tournament, in 1559. After this un-

lucky accident, Montgomery visited Italy and other foreign countries; and did not return to France till the commencement of the civil wars, when he joined the Protestants, and became one of their principal leaders. In 1562 he defended Rouen against the royal army with great valor. The city being at length taken by storm, he stept into a galley; and having surmounted by dint of rowing a chain which had been thrown across the Seine at Caudebec, to prevent succors from England, he escaped to Havre. In 1569 he was sent to the assistance of Bearn, which the Catholics, under Terrides, had almost entirely wrested from the queen of Navarre. He executed his commission with so great despatch, that Terrides was obliged to raise the siege of Navarreins, and retire with precipitation to Orthez. Montgomery pursued him to this city, which he took by assault; and Terrides and his principal officers were taken prisoners. After this the rest of Bearn submitted. He was at Paris at the time of the massacre on St. Bartholomew's day 1572, and narrowly escaped. He took refuge with his family, first in the island of Jersey and afterwards in England. In 1573 he carried a considerable fleet, which he had armed and fitted out in England, to the relief of Rochelle, which was then besieged by the Catholics: but, perhaps distrusting his forces, he left the road without fighting the Catholic fleet, and went to pillage Belleisle. Having disbanded his fleet, he returned to England to Henry de Champernon, his son-in-law, coast admiral of Cornwall. On the renewal of a war in France, in 1573, Montgomery, then in Jersey, passed over into Normandy, and joined the Protestant nobility of that province. Matignon, lieutenant-general in Lower Normandy, to whom Catherine de Medicis had given a particular charge to endeavour to seize the count, came unexpectedly upon him in St. Lo, and laid siege to that city. On the evening of the fifth day of the seige Montgomery left St. Lo with between sixty and eighty horse, forced the guard in the suburbs, and escaped amid a shower of musket bullets, without losing a single man, leaving the command of the place to Coulombieres Francis de Briqueville. Montgomery arrived at Domfront May 7th, 1574, with only twenty followers, intending to make no longer a stay in that place than was necessary to recruit them after the fatigues of so rapid a march. The same day he was joined by several gentlemen with a company of forty horse. —Meanwhile Matignon, enraged at having lost his prey, flew at the head of a party of horse, and arrived on the 9th before Domfront. He blocked up the place and attacked it with such violence that Montgomery was soon obliged to retire into the castle with the garrison, amounting to only 150 men. He sustained a furious assault, fought with the greatest boldness and obstinacy, and exposed himself in the breach like one who wished for death. Perceiving, however, that his soldiers, partly by the fire of the enemy and partly by constant desertion, were reduced almost to nothing, he capitulated on the 27th of May: he was carried to Paris, tortured and beheaded in 1574. Montgomery married in 1549 Elizabeth de la Fouche, of a noble family in Brittany, by whom he left several children.

Montgomery, a market and borough town and the chief town of Montgomeryshire, North Wales, is pleasantly situated near the Severn, on a rocky hill. It is in general well built, clean, and has an air of peculiar neatness. The ruins of the castle stand on an eminence north of the town. This was built in the time of William the Conqueror, and was the scene of various actions in the subsequent reigns. The church is an elegant building in the form of a cross. Near the castle stands a new county jail, and the guild-hall, where the sessions are held alternately with Welsh Pool. The county courts are held here alternately with Machynleth. Montgomery sends a member to parliament, chosen by about eighty voters. It is governed by a high steward, two bailiffs, and a town-clerk. Population 932. Market on Thursday. Twenty-six miles south-west of Hereford, and 161 north-west of London.

Montgomery, a county of the United States, in New York, bounded north by Hamilton's county; east by Essex, Warren, and Saratoga counties; south by Schenectady, Schoharie, and Otsego counties; and west by Oneida and Lewis counties. Its greatest length north and south is eighty-nine miles, and its greatest breadth is thirty-eight. The whole area is 2762 square miles, or 1,767,680 acres. The Mohawk runs eastward quite across the whole county; and to the south of this river the county is rich and fertile; that on the north is of little value. Montgomery sends five members to the house of assembly. Johnstown is the chief town.

Montgomery, a county of the United States, in Pennsylvania, is bounded north-east by Buck's county, E. S. E. by Philadelphia county, S. S. W. by Delaware and Chester counties, and W. N. W. by Berks county. Chief town, Norriston.

Montgomery, a county of the United States, in Maryland, bounded north-west by Frederick county, north-east by Anne Arundel county, south-east by Prince George county and the district of Columbia, and south-west by the Potomac.

Montgomery, a county of the United States, in Ohio. Population, in 1810, 7722; in 1815 13,700. Dayton is the chief town.

Montgomery, a county of the United States, in the south-west of Virginia, bounded N. N. W. by Giles and Monroe counties, E. N. E. by Botetourt county, south-east by Franklin and Patrick counties, and south-west by Grayson, Wythe, and Tazewell counties. The Spaniards had here very lately a military post, which they call a presidio, erected for the purpose of civilising the Indians; and in this benevolent task they exerted themselves with great prudence. The presidio was the residence of the governor of the province. 298 miles from Washington. Chief town Christiansburg.

Montgomery, a county of the United States, in the centre of North Carolina. Chief town, Henderson.

MONTGOMERYSHIRE, a county of North Wales, is by the Welsh called Sir Tre Baldwyn, or the shire of Baldwin, after the name of a lieutenant of the Marches, who swore fealty and did homage to William the Conqueror for this part of Cambria. The district comprehending the present county of Montgomery, anciently among

the Britons was included in the territory occupied by the Ordovices; and, on the prevalence of the imperial arms over the aboriginal inhabitants, was, with other parts of the island lying west of the Severn, comprised in the province of Britannia Secunda.

Montgomeryshire is bounded on the north by Denbighshire, by Shropshire on the east and north-east, on the south-east by Radnorshire, on the south-west by Cardiganshire, and by Merionethshire on the west. The dimensions have been variously given; but the most accurate statement seems to be that which makes the length north to south, and from the extremities of Llangurig, on the borders of South Wales, to Pistyl Rhaiads, a noted cataract in the Berwyn hills, thirty-five miles; and its breadth, east to west from Montgomery to Machynleath, thirty miles; comprising, according to Templeman's statement, 444,800 acres. By computation 560,000; but by a recent survey, taken from Evans's map of North Wales, the average appears to amount to 491,000. About 60,000 of these are arable; 180,000 under pasturage; and about 250,000 waste or in an uncultivated state, including woodlands and other plantations. It is divided into nine hundreds, viz. Llanfyllin, Deuddwr, Pool, Cawrse, Mathrafal, Machynleth, Llanydloes, Newtown, and Montgomery; comprising forty-seven parishes and seven market-towns, viz. Montgomery, a borough, and the county town, Welsh Pool, Llanfyllin, Llanfair, Machynleth, Newtown, and Llanydloes. For ecclesiastical jurisdiction it is distributed into three portions, part lying in the diocese of Bangor, part in St. Asaph, and part in Hereford; and all included in the province of Canterbury. It sends two representatives to the imperial parliament, one as knight of the shire, and the other as burgess of the borough of Montgomery. Its honorial distinctions are confined to two families; Powys Castle gives the title of an earldom to that of Clive, and Montgomery to that of Herbert.

Owing to the great irregularity of surface, there arises a very considerable difference as to the state of climate in this county. The midland, western, and south-western parts, are unfavorable to the growth of corn, both from the ungenial nature of the soil, and the elevated exposure. The narrow valleys are more friendly to vegetation, and highly productive both in corn and grass. But the finest arable land lies on the eastern side of the county, bordering on Shropshire, where agriculture has of late years received considerable improvement, and the management of the land varies but little from that adopted in the adjacent county. The air of the hills is bleak, that of the confined valleys is frequently boisterous but highly salubrious; as the numerous instances of longevity, recorded on the stones 'that mark the humble annals of the poor,' abundantly testify. There are many orchards in the valleys abounding with fruit; yet all attempts to introduce them profitably in the highest parts of the district have hitherto proved abortive. The greater part of the county assumes a mountainous characteristic, and considerable portions exhibit strong features of forbidding sterility. A line, commencing at Pumlumon, or Plinlimmon, on the south-eastern part of the district, runs in a north-westerly direction between Llanbrynmair and Carns, to Llyn Gwyddior Lake; thence to Bwlch y Groes, where, near Aran Fowddior, it enters the adjacent county, through which it continues in nearly the same line, till it terminates in the valley of Festeniog. This has been termed the back bone of Montgomeryshire and Merionethshire. A person may walk this line of fifty miles in extent without crossing a rivulet, as it is the parting ridge of the eastern and western streams; and a farm-house in this line, near Drys y Nant, is so situated that the rain-water which falls on the western side of the roof flows into Cardigan Bay at Barmouth; and that which falls on the eastern side, flows into the Irish Sea at Chester Bar. The Freidden or Briedden hills form a noble group on the eastern side of the county; one of which, Moel y Golfa, stands most conspicuously pre-eminent; and Cefr y Castell little less so. On the south, the Biga mountains lying on the north side of the valley, through which the Severn flows, and a collateral branch of the Plinlimmon ridge, form a line of high table land several miles in extent. Besides these, numerous isolated hills and crags present themselves in almost every direction.

The main streams that falls on the western side of the ridge are the Traeth-bach River, flowing through the valley of Festinoig; the Mau, watering the lowlands near Dolgelley; and the Dovey, which, passing the Vale of Machynleth, may be considered to a considerable extent as claimable by Montgomeryshire. On the western side of this geological spine are found the sources of the Wye, Severn, Vyrnwy, Tanat, Rhaiadr, Ceireog, and Dee. The last two have been noticed in Denbighshire, and the former four originate in this county. These, with several other secondary streams, run nearly in a parallel course towards the vale of Chester, or the plains of Salop. (The Wye is not here mentioned first for its being the most considerable river, but on account of placing the Severn in order with its contributary rivulets.) The Wye, rising on the south side of Plinlimmon, and taking an easterly course, is joined by the Bedw rivulet at Llangerrig; whence, flowing in a south-easterly direction, it soon leaves the county. The Severn rises on the side of Plinlimmon, and, as connected with this district, it may be proper to remark that the character of the Severn does not much assimilate with its mountainous origin, and it soon loses its native rapidity, forming long vales, and generally burying itself within deep banks. Its color is far less transparent than that of the Wye, nor does it in any respect equal that river in picturesque beauty or variety of grand scenery, though it is greatly superior in commercial importance, and the population of its several districts, with their rich plains and fine cities. Even at Llanydloes it ceases to be a torrent, and from thence it forms a delightful valley, more like the extensive vales of England than those stripes of cultivation which prevail within the mountains of Wales. Every appearance of fertility exists in this happy district; and agriculture, with its attendant population, contributes to enrich it. Many villages lie spread beneath the hills; the

handsome town of Newtown adorns its banks; and the fragments of Montgomery Castle start forward on a high mount, sheltering the remains of a town once more considerable. As the Severn, turned apparently by this bulwark, inclines to the north, the vale expands greatly in front of the insulated hills of Brythen and Moelygolfa, while the river flows beneath the superb groves, lawns, and terraces of Powis Castle, to commence its commercial importance at the opulent town of Welsh Pool. Soon after it quits the source, the Severn receives the waters of three powerful streams, called assistant rivers, viz. the Bacho, the Glusslyn, and the Grayling. These also rise on the side of Plinlimmon, and, becoming confluent, concur with the larger stream of the Hasren to form the original Severn, previous to its receiving a copious contributary, called the Si or Se, near the town of Llanydloes. The Byrnwy, rising in the vicinity of Bylch y Groes, takes an easterly direction to the town of Llanfair; whence it suddenly turns to the north-east, and at Llanymynech changes its course again to gain the Severn, near Llandrinia. The Tanat, or Tanad, after having been joined by the Rhaiadr a little below the village of Llanrhaiadr, the latter coming in an easterly direction from the Berwyn mountains on the confines of Denbighshire, continues it course in a similar direction, then turns suddenly to the south, and becomes confluent with the Vyrnwy, near Llansaintfraid-ymmechen. A canal, forming a branch of the Ellesmere, passes through, or ratner penetrates, a portion of this county. The line subject to the control of the Montgomeryshire canal company, commences near Lanymynech lime-works, from which there is an iron railway about two miles and a half long, by which the limestone is conveyed to the boats. From thence it proceeds southerly, and is carried over the river Vyrnwy by means of an aqueduct, consisting of five arches, each forty feet in the span, and twenty-five feet above the ordinary surface of the water, exclusive of several collateral arches for the discharge of the surplus water brought down by the land floods in rainy seasons. Thence, passing Welsh Pool, it goes on to Garthmill, below Berhiew.

The soil and substratum vary, but not to so great an extent as in some of the adjacent counties, the substance of the vales being chiefly of an argillaceous, and the mountains of a schistose nature. Thus the substance of Plinlimmon, or Severn range of hills, is chiefly an homogeneous shale, becoming friable in the air, and easily abraded by water, and in all probability contains but few ores of metals; therefore when held in solution, and afterwards deposited by water, it becomes the general matrix of vegetation. Northward from the Severn the mountains retain their shaly and friable character, a few isolated rocks excepted, quite up to the vale of Vyrnwy, where, on the north side, the gray semi-indurated mountain rock commences, and continues still northward to the vale of Tanat, which receives its soil deposition from the Berwyn range of mountains, consisting of argillaceous schistus. Thus it may be seen, that not only the fertility of the soil, but also the extent of a vale, depends upon the nature and quality of the mountains and rocks by which they are surrounded. The Severn vale acquired its present superiority of extent and fertility over those more northern, owing to the facility with which the diluvian tides excavated the friable shale of its surrounding eminence. All valleys at their sources, where the streams that water them flow rapidly, consist generally of a light gravelly soil; but the farther they extend, and the more expansive they become, from the waters proceeding nearly in a level in their course, the more loamy will be the sediment, and consequently the richer and more productive the soil. Limestone strata are rarely found in this district; the only limestone rocks of any consideration are in the vicinity of Llanymynech, the termination of a ridge which comes from the north-west of Anglesey, in a line through the counties of Caernarvon and Denbigh. Lead ore of various qualities and divers quantities has been discovered in many parts of this district. Slates are principally found in the vicinity of Llangynnog. From a stupenduous rock pre-eminently rising on the north side of the village are obtained those slates, which for strength and durability are celebrated for the purposes of roofing throughout this and the adjacent counties. In an angle of the county, at Coedwae, on the borders of Salop, a few coal-pits have been opened, capable of producing about twelve tons per day. The state of husbandry in this district is extremely various, owing to causes partially arising from the different nature of the soils, the confined prejudices of ignorant farmers, or the more enlightened views of liberal agriculturists. The manufacture of this county consists chiefly of flannels, which are principally manufactured in the south-west of the county.

MONTH, *n. s.* } Sax. monaδ; Teut.
MONTH'S MIND, } *monat*; Lat. *mensis*;
MONTHLY, *adj.* & *adv*, } Gr. μην. Four weeks, or see below: month's mind is used by Shakspeare for strong desire: monthly is continuing; performed or occurring once in a month.

Wher ye seyen not, that yit foure *monthes* ben; and ripe corn cometh? *Wiclif. Jon* 4.

From a *month* old even unto five years old. *Lev.* xxvii. 6.

If the one may very well *monthly*, the other may as well even daily, be iterated. *Hooker.*

Till the expiration of your *month*,
Sojourn with my sister. *Shakspeare. King Lear.*

You have a *month's mind* to them. *Shakspeare.*

O swear not by the moon, the inconstant moon,
That changes *monthly* in her circled orb;
Lest that thy love prove likewise variable. *Id.*

For if a trumpet sound, or drum beat,
Who has not a *month's mind* to combat? *Hudibras.*

Months are not only lunary, and measured by the moon, but also solary, and terminated by the motion of the sun, in thirty degrees of the ecliptick. *Browne's Vulgar Errours.*

As many *months* as I sustained her hate,
So many years is she condemned by fate
To daily death. *Dryden's Theo. and Honoria.*

The youth of heavenly birth I viewed,
For whom our *monthly* victims are renewed. *Dryden.*

I would ask concerning the *monthly* revolutions of the moon about the earth, or the diurnal ones of the earth upon its own axis, whether these have been finite or infinite. *Bentley.*

MONTH, in its proper acceptation, is that space of time which the moon takes up in passing from any certain point to the same again, which is called a periodical month; or, it is the space of time between two conjunctions of the moon with the sun, which is called a synodical month. That space of time which the sun takes up in passing through one sign, or twelfth part of the zodiac, is also called (but improperly) a month. So that there are two sorts of months; lunar, which are measured by the moon (see CHRONOLOGY); and solar, which are measured by the sun. A solar month contains, upon a mean calculation, thirty days, ten hours, twenty-nine minutes, five seconds. The Jews, Greeks, and Romans, made use of lunar synodical months; but, to avoid fractions, they consisted alternately of twenty-nine and thirty days. The former, the Romans called cavi, and the Greeks χοιλοι; the latter were termed pleni and πληρεις.

MONTHS, GRECIAN. The months of the Athenian year consisted alternately of twenty-nine and thirty days. The first month, according to Meton's reformation of the kalendar, began with the first new moon after the summer solstice, and was called hecatombæon, answering to the latter half of June, and the former half of July. The order of the months, with the number of days of each, were as follows:—

1 Hecatombæon	30	7 Posideon	30
2 Metageitnion	29	8 Gamelion	29
3 Boedromion	30	9 Elaphebolion	30
4 Mæmacterion	29	10 Munychion	29
5 Pyanepsion	30	11 Thargelion	30
6 Anthesterion	29	12 Skirrophorion	29

Each month was divided into three decades of days called δεχημερα. The first was called Μηνος αρχομενυ or ισαμηνυ, or the decade of the beginning of the month; the second was Μηνος μεσυντος, or the decade of the middle; and the third was Μηνος φθινοντος, παυομενυ or ληγοντος, the decade of the expiring month. The first day of the first decade was termed Νεομηνια, because the first month began with the new moon; the second day was δευτερα, ισαμενυ; the third τριτη ισαμενυ, &c. The first day of the second decade was πρωτη μεσυνος, the second δευτερα μεσυντος, &c.—the days of this decade were also called πρωτη επι δεκα, δευτερα επι δεκα, &c. The first day of the third decade was πρωτη επ' εικαδι; the second day was δευτερα επ' εικαδι, &c., i. e. the first, second, &c., after twenty, because the last decade began on the twentieth day. This decade was also counted by inversion thus: φθινοντος δεκατη the twenty-first; φθινοντος εννατη the twenty-second; φθινοντος ογδοη the twenty-third; and so of the rest of the last day of the month, which was called ενη και νια, the old and the new, because one part of that day belonged to the old and the other to the new moon; but after the time of Demetrius, the last day of the month was called from him Δημητριας; it sometimes was named τριακας. The Grecian months, thus consisting of twenty-nine and thirty days alternately, fell short of the solar year eleven days six hours. To remedy this defect, the cycle of four years, called τετραετηρις, was invented. In this cycle, after the two first years, they added an intercalated month called εμβολιμος, consisting of twenty-two days; and again, after the expiration of two years more, they inserted another month of twenty-three days, the fourth part of a day having in the space of four years amounted to a whole year. See YEAR.

MONTHS, HEBREW. The Hebrew months were ranged differently in their sacred and in their civil year.

Order of the sacred Year.		Order of the civil Year.	
1 Nisan	Mar.	1 Tisri	Sep.
2 Jair	Apr.	2 Marschevan	Oct.
3 Sivan	May	3 Casleu	Nov.
4 Thammuz	June	4 Thebet	Dec.
5 Ab	July	5 Sebat	Jan.
6 Elul	Aug.	6 Adar	Feb.
7 Tisri	Sep.	7 Nisan	Mar.
8 Marschevan	Oct.	8 Jair	Apr.
9 Casleu	Nov.	9 Sivan	May
10 Thebet	Dec.	10 Thammuz	June
11 Sebat	Jan.	11 Ab	July
12 Adar	Feb.	12 Elul	Aug.

These months, being lunar, cannot exactly answer to our solar months; but every Jewish month must be conceived to answer to two of ours, and partake of both. As these twelve lunar months consisted only of 354 days, the Jews, in order to bring it nearer to the true year, took care every three years to intercalate a thirteenth month into the number, which they called ve-adar, or the second adar. The new moon was always the beginning of the month; and it is said the Jews had people posted on elevated places, to give notice to the Sanhedrim as soon as she made her appearance. After this, proclamation was made by sound of trumpet, and 'the feast of the new moon' resounded among the people. The ancient Hebrew months were of thirty days each, excepting the last, which consisted of thirty-five; so that the year contained 365 days, with an intercalary month at the end of 120 years, which, by absorbing the odd hours which remained at the conclusion of each year, brought it back nearly to its proper place. This regulation of the year was borrowed from the Egyptians.

MONTHS, ROMAN. The Roman year under Romulus consisted of ten months only, and began with March, which contained thirty-one days, then followed April, which had thirty, May thirty-one, June thirty, Quintilis thirty-one, Sextilis thirty, September thirty, October thirty-one, November thirty, December thirty. These ten months containing no more than 304 days, this division was soon found deficient. Numa Pompilius, therefore, took away one day from each of these six months, April, June, Sextilis, September, November, December; and to the six days thus obtained he added fifty-one, which was the number that Romulus's year, in his opinion, wanted to make it perfect. Numa had now fifty-seven days to dispose of; he therefore divided them, and constituted two other months, January and February; the former consisting of twenty-nine and the latter of twenty-eight days. January,

which he placed at the winter solstice, he made instead of March, to begin the year. Thus Numa's year consisted of 355 days; but, this being found eleven days six hours short of the solar year, he made use of the intercalation of ninety days at the expiration of eight years perpetually; which number, being made up of the eleven days and a quarter, kept the year pretty well to its place. The beginning of the year in Julius Cesar's time had anticipated its true place sixty-seven whole days; these he intercalated betwixt November and December; so that the year consisted of fifteen months, or 445 days. This reformation was called the Julian correction, and this year the year of confusion. At the end of twelve years, by the ignorance of priests, who did not understand intercalation, twelve days had been intercalated for nine. This was observed by Augustus, and rectified, by ordering twelve years to pass without any intercalary days. The order and succession of months was the same as that of Numa; but January, March, May, Quintilis, Sextilis, October, and December, had each thirty-one days; April, June, September, thirty; and February, in common years, twenty-eight, but every fourth year or bissextile twenty-nine. This, with a very little difference, is the account observed at present. Quintilis, in compliment to Julius Cæsar, was called July, because in this month he was born; and Sextilis, in honor of Augustus, was called August, both which names are still continued. See YEAR. Each month by the Romans was divided into kalends, nones, and ides, all of which were reckoned backwards. The kalends were the first day of the month. See KALENDAR.

MONTJOYE, a town of Prussia, in the duchy of Juliers. It has a castle on an eminence; and a small stream, the Tigenbruch, divides the town. It is surrounded by steep rocks, and is situated in a barren district; but it has extensive woollen manufactures. Population 3200. Sixteen miles S. S. E. of Aix-la-Chapelle.

MONTINIA, in botany, a genus of the tetrandria order, belonging to the diœcia class of plants. MALE perianth, of the male quadridented superior; petals four: FEMALE CAL. and COR. as in the male; filaments barren; style bifid; CAPS. oblong and bilocular.

MONTMORENCI, or MONTMORENCY (Ann de), a peer, marshal, and constable of France, and one of the greatest generals of the sixteenth century. He defended, in 1512, the city of Menziers against the emperor Charles V., and obliged the count of Nassau to raise the siege. In 1513 he was made marshal of France; and, in 1525, following king Francis I. into Italy, he was taken with that prince at the battle of Pavia, which was fought contrary to his advice. The important services he afterwards rendered the state were rewarded by the sword of constable of France, with which he was presented by the king, February 10th, 1538. He afterwards underwent various revolutions of fortune both at court and in the field. At last, being wounded at the battle of St. Denis, which he gained on the 10th of November, 1567, he died of his wounds two days after, aged seventy-four. A cordelier offering to prepare him for death, when he was covered with blood and wounds, after the battle of St. Denis, he replied in a firm and steady voice: 'Do you think that a man who has lived nearly eighty years with honor, has not learnt to die for a quarter of an hour?'

MONTMORENCI, a river of Canada, falling into the St. Lawrence about seven miles below Quebec. It runs altogether a very irregular course, through a thickly wooded country and over a bed of broken rocks, till it comes to the brink of a precipice, down which it descends in one beautiful uninterrupted and nearly perpendicular fall of 240 feet. The stream, except at the time of floods, is but scanty; but being broken into foam, by rushing with such rapidity as it does over the rocks at the top of the precipice, it is much dilated. The breadth at top, from bank to bank, is about fifty feet only. In its fall it is said to have the exact appearance of snow, as when thrown in heaps from the roof of a house. The spray at the bottom is considerable, and, when the sun happens to shine, the prismatic hues are exhibited in it in all their variety.

MONTMORENCY-ENGHIEN, lately called Emile, the principal place of a canton in the department of the Seine-et-Oise, France, is a post-town with 1800 inhabitants, and situated on an eminence, which overlooks a valley celebrated for its fertility. The view is one of the most delightful that can be conceived, and the air pure and serene. There is a chateau in the neighbourhood, very finely situated, with an extensive park, intersected by the river Nôtre, and containing some excellent springs and plantations. The forest of Montmorency is near the town, at the extremity of which is the house once inhabited by J. J. Rousseau, called The Hermitage. In the chestnut grove adjoining, the towns-people and peasantry assemble to dance at the festival of the guardian saint of Montmorency on the two Sundays which follow the 28th of July. Near the pool of this town, in the valley, is a sulphureous spring, almost equal to that of Barège, which has been the occasion of a celebrated establishment of warm baths at Enghien. These are open from the fifteenth of June to the end of September, when the fine park of Saint Gratien, and the large lake of Montmorency, furnish the bathers with charming walks through plantations extending over more than 500 acres, and disposed after the English manner; while the expenses of the place are very moderate, considering the improvements that have been made. Coaches start for Paris several times in the day for the convenience of the visitors. Manufactures of lace and embroidery are carried on here: vegetable, fruits, and fruit-trees, especially cherries, are much cultivated, and there is some traffic in all these articles. The parish church is remarkable for its architecture and Gothic sculpture, the production of the sixteenth century. This place is fifteen miles south-east of Pontoise, and nine north of Paris.

MONTPELIER, a post town of Washington county, Vermont, on Onion River; thirty-eight miles E. S. E. of Burlington, sixty north of Windsor, 120 S.S.E. of Montreil, 150 N.N.E. of Albany, 160 N.N.W. of Boston. It is the permanent seat of the state government, and the

shire town of the county. The village is situated on the south-west part of the township, and contains a commodious state-house built of wood, a court-house, a jail, an academy, two paper-mills, two carding machines, two clothiers' works, a printing-office, and about 100 dwelling-houses, the most of which are handsomely built. It is a flourishing place, and has considerable trade. But the site on which it is built is low, being surrounded by hills of considerable height. It is situated within ten miles of the centre of the state, and is a great thoroughfare.

MONTPELLIER, or Montpelier, Mons Puellarum, a large and handsome city, the chief place of a prefecture of the same name, in the department of Herault, France, having a royal court for the departments of Herault, the Aude, the Aveyron, and the Eastern Pyrenees; an inferior court of justice, chamber of commerce, an agricultural society, an academy, faculties of medicine and science, an athenæum, a royal college, a veterinary school, and a bishopric. It is the first place of the ninth military division, and a post town, containing 32,000 inhabitants. It stands in a fine situation on a hill, at the foot of which flow the Lez and the Merdanson. The surrounding country is beautiful, adorned with elegantly built country houses, covered with gardens and orchards, and encircled with hills crowned with shrubberies and planted with vines and olives.

The town is generally built of freestone; but most of the streets are narrow and steep, and the public squares are small and irregular; yet the general appearance of the place is pleasing. There are several beautiful parts, some fine fountains, a spacious esplanade, a noble botanical garden, a magnificent walk, and several well executed monuments.

The history of Montpellier does not go farther back than the eighth century; before that epoch it was only a village formed out of the ruins of Maguelone, the bishopric of which was afterwards transferred hither. Charles Martel increased the number of its inhabitants and gave them a taste for commerce; in a few years it became an important town, and the reputation of its physicians was celebrated as early as the twelfth century. One of the daughters of William, the lord of this place, having married Peter II., king of Arragon, in 1204, it passed into the hands of the sovereigns of Majorca. Philip de Valois obtained possession of it in 1349; but a short time after Charles V. ceded it to Charles the Bad, king of Navarre, and it did not come into the possession of the kings of France until towards the end of the reign of Charles VI. Montpellier has been the theatre of many bloody tragedies on religious accounts. The Huguenots obtained it in the reign of Henry III., and established a republican government, which lasted till the year 1622: after that, having sustained a terrible siege, it submitted to Louis XIII., who caused a citadel to be built in it. It owes great part of its celebrity to its medical school, so much famed through all Europe, and which originated with the Arabs, who were driven out of Spain by the Goths and hospitably received by the earls of Montpellier. During seven centuries that it has been established it has not belied its reputation, but always attracted a great number of students.

There are here manufactures of cloth, woollen counterpanes, muslins, handkerchiefs, verdigris, mineral acids and other chemicals, soap, corks, liqueurs and perfumes; also cotton-spinning factories, numerous distilleries for brandy and other spirits, sugar refining-houses, tan yards, &c. A considerable trade is here carried on in wines, brandies, olive oil, citrons, oranges, dried fruits, leather, wool, copper, and verdigris. An institution has been set on foot for lending sums of money without interest. The medical school has a fine amphitheatre, the marble seat in which was found the arena of Nîmes, and a public library occupying several rooms, and containing 35,000 volumes; together with a number of very valuable manuscripts, an anatomical museum, and a public hall, decorated with busts. Among the other places worthy of notice may be mentioned the city public library, the museum of pictures, and the botanical garden, in which more than 8000 plants are cultivated. In one of the walks of this garden stands the tomb of Narcissa, Dr. Young's daughter. The promenade of Peyrou is very fine; it is a magnificent platform, surrounded with bulustrades, raised ten or twelve feet above another promenade, which surrounds it with its covered vista; the ascent is by steps, and you enter by a gate. At one end is a chateau with six fronts, adorned with pillars; within this building is a basin, from which a sheet of water falls in a cascade over a fine imitation of rocks into another basin below. The water is brought to it by a noble aqueduct of modern construction, built of freestone in the style of the ancients, consisting of three rows of arcades, one over the other, and crossing a valley about nine miles broad. The most magnificent prospect is enjoyed from this promenade. The assembly room is a building of great simplicity, capable of containing 2000 spectators. Besides these there are the exchange, the observatory, the tower of pines, the general infirmary, the fountain of Jacques Cœur, and the triumphal arch called the gate of Peyrou, of the Doric order. About five miles south of Montpellier, at the pool of Maguelonne, are to be seen the ruins of the town of that name.

This city is situated in lat. 41° 36′ N., long. 1° 32′ E. from Paris, being about 598 miles south of that metropolis, forty south-west of Nêmes, seventy north-west of Avignon, and 126 W.N.W. of Marseilles.

MONT-PERDU, a very lofty mountain in the Pyrenees, on the frontier of France and Spain. It is about 100 miles from the bay of Biscay, west, and considerably more from the Mediterranean; having a double summit, of which the higher is computed at 10,700, and the lower at 10,400 feet. The line of perpetual congelation begins here, 7500 feet. Adjoining is the great mountain of Marbore, and the remarkable cleft in its rocks, called la Breche de Roland.

MONTREAL, an important town, or city, of Upper Canada, on the south side of the island of this name. It is divided into the Upper and Lower town, subdivided into wards. The streets are airy, and the new ones particularly com-

modious; some of them running the whole length of the town, parallel to the river, and intersected by others at right angles. The houses are, for the most part, of a gray stone; and sheet iron or tin is the universal roofing. It perhaps has on the whole a heavy and gloomy appearance; the houses being seldom more than two stories above the ground floor, including garrets; and the doors and window-shutters being covered with large sheets of tin, painted of a red or lead-color. The only open place or square in the town, except the two markets, is the Place d'Armes, where, under the French government, the garrison troops were paraded.

The principal street of the Lower Town, extending from north to south, the whole length of the city, at the water side, is called Paul Street. Here are situated the principal stores, the lower market-place, the post-office, and the Hotel Dieu: and this is the chief mart of the trade and commerce. Notre Dame Street runs in a parallel line, extending along the whole length of the city, and here the dwelling-houses of the principal merchants are situated. These two streets are considerably lengthened to the northward by the suburb of Quebec; and to the southward by those of St. Antoine and Recollet. In the centre of the street of Notre Dame branches off a long street to the westward, forming the suburb of St. Lawrence. It is also the high road to the interior of the island. In one of the short streets leading to the upper town, opposite the court-house, a new market-place has been constructed.

The chief public edifices are the Hotel Dieu, founded in 1644, for administering relief to the destitute sick, and containing a superior and thirty-six nuns, who attend on the patients; general hospital, or convent of the Gray Sisters; a refuge for invalids; and for the aged poor; the convent of Notre Dame, composed of a superior and sixty sisters, for the instruction of females in all the necessary branches of their education; the cathedral church, in the Place d'Armes, a large substantial stone building; and the seminary of St. Sulpice, for the education of youth, adjoining the cathedral. The petit seminaire, or new college, in Recollet suburbs, is a handsome edifice, and the court-house in Notre Dame Street is respectable: here the courts of civil and criminal judicature are held. The jail of the district is near the court-house, and is a substantial building, erected in a healthy situation, on the site of the old one, destroyed by fire in 1803. At the western extremity of Notre Dame Street stands the old monastery of the recollets.

Montreal is the depôt of the fur-trading companies of North America; it is also the channel through which is carried on the commerce between Canada and the United states. The harbour, though not large, is secure for shipping during the time the river is open; and vessels drawing fifteen feet water can lie close to shore. The general depth is from three to four and a half fathoms, with good anchorage every where between the Market Gate Island and the shore. In the spring this island is nearly covered by the tides. The greatest disadvantage is the rapid of St Mary, about a mile below it, whose current is so powerful, that, without a strong north-easterly wind, ships cannot stem it, and are sometimes detained even for weeks, about two miles only from the place. A few log-houses formed, in 1640, the commencement of Montreal: its population soon amounted to 4000; when, in consequence of the hazards to which the new establishments were exposed from the irruptions of the Iroquois, a barrier was drawn round it with palisades, and it was surrounded with a high wall and battlements. All danger of this kind of hostility having long ago ceased, the wall has been allowed to fall into decay, and the last remains of it have been removed by a recent act of the provincial legislature. In 1760 this town was taken by the English, under general Amherst, and in 1775 by the Americans, under general Montgomery; but soon after evacuated. It is 120 miles south-west of Quebec, the town of Trois Rivieres being about half-way; 220 north by west of Boston, and 286 north-east of Niagara. Long. 73° 35′ W., lat. 45° 31′ N.

Montreal, an island and county of Lower Canada, at the confluence of the Grand or Ottawa River with the St. Lawrence. It is of a triangular shape, thirty-two miles long by ten and a half broad. The Riviere de Prairie separates on the north-west from the isle Jesus. The island contains the following nine parishes, St. Ann, St. Genevieve, Point Claire, La Chine, Sault au Recollet, St. Laurent, Riviere des Prairies, Pointe-au-Tremble, and Longue Pointe. With some exceptions, it exhibits a level surface, watered by rivulets. From Montreal city to the eastward the shores are from fifteen to twenty feet above the level of the St. Lawrence; but in the opposite direction, towards La Chine, they are lower. Between the Coteau St. Pierre and the river the land is very flat and marshy. The soil, if a few insignificant tracks be overlooked, can scarcely be excelled, and is highly productive in grain of every species, vegetables, and fruits.

In the neighbourhood of Montreal are two or three considerable mountains. The largest is about a mile from the town, and is environed with neat country houses and gardens. The view from this place embraces a prodigious expanse of country, with the river St. Lawrence winding through it, and sending the action of its rapids, hurried over the rocks, even up to the summit of the mountain; on the left appears the town of Montreal, with its glittering spires, and shipping. This island belongs to the seminary of St. Sulpice, by whom it was settled about the year 1657.

Montreal, a district of Lower Canada, bounded on the north-east by the district of Three rivers, on the south by the states of New York and Vermont, where the boundary line, running parallel of 45° N. lat., divides the territories of the English and American governments; on the south-west by the province of Upper Canada and the Grand or Ottawa River; and on the north and north-west it runs as far as the unascertained limits of the province in that direction. The perpendicular breadth from St. Regis, along the general course of the river, is seventy-three miles and a half. It contains the counties of York, Effingham, Leinster, Warwick, Huntingdon, Kent, Surry, Bedford, Richelieu, and Montreal.

Montreal Bay, a bay on the east side of

Lake Superior. Long. 84° 50′ W., lat. 47° 10′ N.

MONTREAL, an island in Lake Superior, near the east coast. Long. 84° 50′ W., lat. 47° 9′ N.

MONTREAL, a river of North America, which runs into Montreal Bay.

MONTREUIL, a town of France, on a hill adjoining the river Canche, about nine miles from the sea. It contains several good buildings, and has a few manufactures of flannel, woollens, and leather. Pupulation 3400. Twenty miles south-east of Boulogne.

MONTREUIL, a town of France, six miles east of Paris. It sends peaches and garden herbs to Paris to the computed value of £12,000 annually. Population 3200.

MONTROSE, a parish of Scotland in Angusshire, anciently called Celurca. The most probable derivation of its modern appellation is from the Gaelic, in which Moinross signifies the fenny promontory, and it is called by the vulgar Monross to this day. Buchanan and others have given it a derivation more flattering than just, when they assert, that it properly means the mount of roses, Mons rosarum. Yet in allusion to this, the town's seal is impressed with roses. It is three miles long from north to south, and two and a half broad.

MONTROSE, a town in the above parish, situated at the mouth of the Esk, on the German Ocean. The town stands on a gently rising ground, in one of those low sandy flats which occur so frequently on the shores of the German Ocean, and which, from their slight elevation above the sea-level and other circumstances, appear to have been once overflowed by the water. It has the German Ocean on the east, at the distance of about half a mile, and to the west is a tract of low and level sands, about four square miles in extent, and nine miles in circumference, through which the South Esk winds its way to the sea, passing close to the town on its south side. These sands lie below the level of high water, and above the level of low water; and, the river opening a communication with the sea, it necessarily happens, that every rising tide rushes up the channel of the river, and inundates the whole of this sandy flat to the west of the town, which is again left uncovered by the reflux of the tide. The channel through which this great body of water is alternately poured in and discharged, is suddenly contracted at the south end of the town to the breadth of 700 feet at high water, and 400 feet at low spring tides; and, in consequence of this, the stream rushes in or out with great violence, according as the tide is either flowing or ebbing, and it is over the narrow part of the channel that the bridge is erected; the narrowness here, which both strengthens and deepens the current, rendering the situation in other respects favorable for a structure of this nature. This low land, over which, at each return of the tide, are spread the waters of the ocean, after they have made their way through the narrow channel of the South Esk, is called the basin, which forms a striking object in the scenery of the place, appearing, when the tide is full, a large and beautiful lake, and in a few hours afterwards, when the waters have retired, a desolated sandy marsh. In 1792 a fine timber bridge was erected over the gorge of this island to the island of Inchbrayock, which, together with the stone bridge from the island to the south shore, afforded an open communication with the south part of the country. But the strength of the current undermining the piers of the timber bridge, in 1824, the commissioners requested plans of Mr. Buchanan, and one or two other surveyors, for the construction of a new one of iron, the expense of which was calculated at about £12,650. Whether they have made any progress in this we do not know. Two light-houses have lately been erected as guides into the harbour, and a large house has been built for receiving unfortunate sufferers by shipwreck and otherwise. Montrose is a port of the custom house, comprehending, within its bounds, the coast from the lights of Tay, on the south to Bervie-Brow, to the Todhead on the north. The vessels of this port are chiefly employed in the coasting and Baltic trade, and in the whale fishery; and their number is continually increasing. The principal manufactures are linen-yarn and thread; and the sheeting and sail-cloth manufactures are carried on to a great extent. Here is an extensive tanwork, and several rope walks; also a foundry, two starch and several soap and candle manufactories. The houses are neat, built of stone, and many of them in the modern taste. The most remarkable public buildings are, the old and new town-houses, the church, the lunatic hospital, the public library, and an elegant episcopal chapel, situated in the links. The salmon fisheries on these rivers are very valuable, and form a considerable branch of commetce. This town has a theatre, monthly assemblies, and other places of amusement; and, for several years past, has been distinguished for its well attended races. Montrose unites with Aberdeen, Bervie, Brechin, and Arbroath, in electing a representative in the imperial parliament. The town council consists of a provost, three bailies, dean of guild, treasurer, and thirteen councillors. It lies forty-seven miles north-east of Perth, and twenty-three from Dundee.

MONTSERRAT, or MONSERRAT, a mountain of Spain, in Catalonia, remarkable for its hermitages, and a rich monastery of Benedictines. It extends in the direction of east and west, on the river Llobregat, and is about twenty-four miles in circumference. It consists of an assemblage of conical hills, attaining a height of more than 3000 feet. Twenty-eight miles north-west of Barcelona.

MONTSERRAT, one of the West India Islands belonging to Great Britain, is small, but very pleasant and fertile, and was so called by Columbus from its resemblance to the above mountain. It has Antigua on the north-east, St. Christopher's and Nevis on the north-west, and Guadaloupe lying S. S. E. at the distance of about nine leagues. In its figure it is nearly round, about nine miles in extent every way, twenty-seven in circumference, and supposed to contain about 40,000 acres. The climate is warm, but less so than in Antigua. The surface is mountainous, but interspersed with pleasant, rich valleys: the hills are covered with cedars and other fine trees. Here are all the animals, vegetables, and fruits of the climate in perfection. The inhabitants raised formerly a considerable quantity

of indigo, which they cut four times a year. The present produce is cotton, rum, and sugar. There is no good harbour, but three tolerable roads, at Plymouth, Old Harbour, and Ker's Bay, where they ship the product of the island. The effects of industry have been no where more conspicuous than in this island of late years. The population was,

	Whites.	Free people of color.	Slaves.
1787	1300	260	10,000
1805	1000	250	9,500

The official value of the imports from the island into England, and exports to the island, were,

	Imports.	Exports.
1809	£35,407	£10,460
1810	62,462	16,816

The principal imports of the island's produce were,

	Sugar. *cwts.*	Rum. *galls.*	Cotton. *lbs.*
1809	21,917	51,182	29,455
1810	41,112	48,880	48,313

In 1632 Sir Thomas Warner, governor of St. Christopher's, first sent here a small English colony: this was reinforced by lord Willoughby soon after, and the colony quickly rose into notice. In 1668 the French reduced it; and in 1712 burnt all the shipping in the road. Its militia at present is 500 in number: and it is divided into two parishes.

MON'UMENT, *n. s.* } Fr. *monument*; Lat.
MONUMEN'TAL, *adj.* } *monumentum*. A memorial: particularly a tomb, or memorial of the dead.

The flowers which in the circling valley grow,
Shall on his *monument* their odours throw. *Sandys.*

Some others were driven and distent
Into great ingots and to wedges square,
Some in round plates withouten *moniment*.
Faerie Queene.

Perseverance keeps honour bright:
To have done, is to hang quite out of fashion
Like rusty mail in *monumental* mockery. *Shakspeare.*

On your family's old *monument*
Hang mournful epitaphs, and do all rites
That appertain unto a burial. *Id.*

In his time there remained the *monument* of his tomb in the mountain Jasius. *Raleigh.*

He is become a notable *monument* of unprosperous disloyalty. *King Charles.*

Therefore if he needs must go,
And the fates will have it so,
Softly may he be possest
Of his *monumental* rest. *Crashaw.*

A man's best *monument* is his virtuous actions.
Bp. Hall.

So many grateful altars I would rear
Of grassy turf; and pile up every stone
Of lustre from the brook; in memory,
Or *monument* to ages: and thereon
Offer sweet-smelling gums.
Milton's Paradise Lost.

When the sun begins to fling
His flaring beams, me, goddess, bring
To arched walks of twilight groves,
And shadows brown that Sylvan loves,
Of pine or *monumental* oak. *Milton.*

In a heap of slain,
Two youthful knights they found beneath a load oppprest
Of slaughtered foes, whom first to death they sent,
The trophies of their strength, a bloody *monument*.
Dryden.

Of ancient British art
A pleasing *monument*, not less admired
Than what from Attick or Etruscan hands
Arose. *Philips.*

The destruction of the earth was the most *monumental* proof that could have been given to all the succeeding ages of mankind. *Woodward.*

With thee on Raphael's *monument* I mourn,
Or wait inspiring dreams at Maro's urn. *Pope.*

The polished pillar different sculptures grace,
A work outlasting *monumental* brass. *Id.*

MONUMENT, THE, of London, a remarkable pillar of the Doric order, erected on Fish Street Hill, to commemorate the cause and providential cessation of the fire of London. It is 202 feet high, that being also the distance of its base from the spot where the fire commenced. The pedestal is forty feet high, and the plinth twenty-eight feet square; the shaft of the column is 120 feet high: it is hollow, and encloses a staircase of black marble, consisting of 345 steps, by which a balcony, within thirty-two feet of the top, is reached. The column is surmounted with an urn forty-two feet high, with flames issuing from it.

On three sides of the pedestal are inscriptions, and the fourth is occupied with a piece of sculpture allegorically representing the destruction and rebuilding of the city. In one compartment the city appears in flames—the inhabitants, with outstretched arms, calling for succor—the insignia of the city lying thrown down and mutilated—while a female, wearing a civic crown and holding a sword, shews that the municipal authority was still maintained. The king, Charles II., occupies a conspicuous situation; he is represented in a Roman habit, and is trampling under his feet Envy, who seeks to renew the calamity by blowing flames out of his mouth. Near the sovereign are three females, representing Liberty, Imagination, and Architecture. Time is offering consolation to the distressed, and Providence gives assurance of peace and plenty. There are also several other figures, including Mars and Fortitude. The whole was executed by that eminent sculptor Caius Gabriel Cibber.

The inscriptions on the pedestal are in Latin; one of them details the great calamity, observing, 'that to the estates and fortunes of the citizens it was merciless, but to their lives very favorable, that it might, in all things, resemble the last conflagration of the world.' The second inscription records the activity with which, under the auspices and direction of the sovereign, the city was rebuilt. On the third side of the pedestal the names of the chief magistrates of the city, during whose mayoralties the monument was erected, are inscribed; and round the base there is an inscription attributing the destruction of the city to a 'popish faction,' in order to carry on the 'horrid plot for extirpating the protestant religion and old English liberty, and the introducing popery and slavery.'

This last inscription was defaced during the reign of James II.; but on his abdication, and the accession of William III., it was very deeply re-engraved. It is due to the memory of the great architect, Sir Christopher Wren, to state the inscriptions were not suggested by him, but adopted contrary to his wishes, instead of more

elegant and less illiberal compositions which he had prepared.

A person is constantly in attendance at the monument to admit visitors, who for a fee may ascend to the gallery, and two or three instances have occurred in which this facility has been used to a fatal purpose. The first was on the 26th of June, 1750, when a man, apparently a weaver, fell from the top, but whether accidentally or designedly is not known. Of the two remaining instances there is, however, no doubt: on the 7th of July, 1788, John Cradock, a baker, threw himself over the north side of the monument, and fell outside the railing; and on the 18th of January, 1810, Mr. Lyon Levy, a diamond merchant, threw himself from the east side of the gallery, and fell against the pedestal; as the height of the gallery from which they precipitated themselves is 175 feet, it is scarcely necessary to state that they were all killed on the spot.

MONZA, a town of Italy in a district of this name, late part of the duchy of Milan on the Lambro, eight miles N. N. E. of Milan. In this town is preserved the ancient iron crown, with which the emperors and kings of Italy were crowned. It is called the iron crown, though made of gold, and enriched with jewels, from an iron ring in the inside of it. It lately adorned the brows of the Jacobin, Republican, Consular, imperial, and royal Napoleon Buonaparte. Population 18,000.

MOOD, *n. s.* } Sax. *mod*; Goth. and Swed.
MOOD'Y, *adj.* } *mod*; Fr. *mode*; Lat. *modus*. See MODE. Form of argument; grammatical change or form of a verb; stile of music; also mental temper (i. e. form or outward character of the mind); disposition; state of mind: moody is used both for mental, intellectual; and as meaning angry, out of temper.

And on his bare knees adoun they falle,
And wold have kist his feet ther as he stood,
Till at the last aslaked was his *mood*;
For pitee renith sone in gentil herte.
Chaucer. Cant. Tales.

The trembling ghosts, with sad amazed *mood*,
Chattering their iron teeth, and staring wide
With stony eyes. *Faerie Queene.*

That which we move for our better instruction's sake, turneth into anger and choler in them; yet in their *mood* they cast forth somewhat wherewith, under pain of greater displeasure, we must rest contented. *Hooker.*

Solyman, in a melancholy *mood*, walked up and down in his tent a great part of the night. *Knolles.*

Chide him reverently,
When you perceive his blood incline to mirth,
But being *moody*, give him line and scope,
Till that his passions, like a whale on ground,
Confound themselves with working. *Shakspeare.*

Eyes unused to the melting *mood*,
Drop tears as fast as the Arabian trees
Their medicinal gum. *Id. Othello.*

How now, *moody*?
What is't thou can'st demand? *Id. Tempest.*

Clorinda changed to ruth her warlike *mood*,
Few silver drops her vermil cheeks depaint.
Fairfax.

They move
In perfect phalanx, to the Dorian *mood*
Of flutes, and soft recorders.
Milton's Paradise Lost.

She was in fittest *mood*
For cutting corns, or letting blood. *Hudibras.*

These two kids, to appease his angry *mood*,
I bear, of which the furies give him good. *Dryden.*

Every peevish, *moody* malecontent
Shall set the senseless rabble in an uproar. *Rowe.*

He now profuse of tears,
In suppliant *mood* fell prostrate at our feet.
Addison.

Mood is the regular determination of propositions according to their quantity and quality, i. e. their universal or particular affirmation or negation.
Watts's Logick.

Aristotle reduced our loose reasonings to certain rules, and made them conclude in *mood* and figure.
Baker on Learning.

Then—with the hurried tread, the upward eye,
The clenched hand, the pause of agony,
That listens, starting, lest the step too near
Approach intrusive on that *mood* of fear. *Byron.*

MOOLTAN, or MOULTAN, a considerable province of Hindostan, situated between 28° and 31° of N. lat. It is bounded to the north by Lahore and Afghaunistan, to the west by Beloochistan, to the south by Ajmeer and Sinde, and to the east by Lahore and Ajmeer. The northern and eastern districts of Mooltan are fertile, being watered by the rivers of the Punjab; but it becomes gradually sandy and barren as it approaches the desert between Sewee and Bekher or Backar, and over which during the summer months the pernicious simoon frequently blows. To the west of the river Indus the sterility increases and terminates in a ridge of black rocks. The province produces fine camels and an excellent breed of horses called Lackhy Tazees. It was invaded about the year 712, by a body of Arabs under the command of Mohammed Cossim, who took possession of the towns, and converted a number of the Afghauns and natives of the Jat tribe. Early in the eleventh century it was invaded by the celebrated Mahmoud of Ghizne. For a long period it continued subject to the monarchs of his dynasty, and afterwards to those of Delhi.

In the end of the fourteenth century the province of Mooltan was taken possession of by Shaikh Yusuf Coreishy, and remained independent till reconquered by the celebrated Shire Shah, in the middle of the sixteenth century; it soon after became subject to the Moguls, upon whose decline it fell into the hands of various chiefs. The greater part of it is now subject to a nabob of Mooltan, who is obliged to pay tribute to the Afghauns, to the Seiks, and to Sinde. The population consists of Afghauns, Jats, and other Hindoo tribes. Its chief towns are Mooltan, Behawulpore, Adjodin, Cutch, and Debalpore.

MOOLTAN, the Malli probably of Alexander, is the capital of the above province. It was taken by the Arabs in 712; and, on account of the immense plunder found, was named Daral Zeheb, or house of gold, and Kubbeh al Islam, the cupola of faith. It is thus described by Iben Haukal, in the middle of the tenth century:—'The city of Mooltan is about half the size of Mansoureh-Buckhur, and is called the Golden-house; for there is in this city a certain idol, to which the natives of the country come on a religious pilgrimage every year, and bring great

riches with them. The temple is situated in the middle of the city; and over the centre of the temple there is a great cupola or dome. All around this building are various houses, in which the servants and attendants of the idol reside. The idol is made in the form of a man sitting upon a square throne, the hands resting on the knees (the figure of Boodh). All the riches which are brought to this idol are taken by the ameer (Arab governor), who distributes a portion among the servants of the temple. Whenever the Indians come against Mooltan in a hostile manner, the ameer threatens to destroy the idol, which causes them to desist. This ameer is a Coreishy Arab, and a descendant of Sam, who first conquered Mooltan. He has not any power over Mansoureh, but the Khutbeh is read in the name of the khalif.'

In 1010 this city fell with the province into the hands of the sultan Mahmoud of Ghizne, and its chief, an Afghaun named Daoud Khan, was taken prisoner. It was, however, recovered by the Afghauns, and again captured by Mahommed Ghory in 1176. From that period it was subject to the kings of Delhi, till 1398, when it was captured by Timour or Tamerlane. After his retreat from Hindostan it became the capital of an independent dynasty, as we have seen.

It was visited in 1808 by Mr. Elphinstone, who describes it as standing about four miles south-east of the Chenab, or Acesinies River, and surrounded by a fine wall forty feet high, and four miles in circumference, with towers at regular distances. It has a citadel situated on a rising ground, and several handsome tombs. Mooltan is famous for its silks and carpets, and the country immediately around he found very pleasant and well cultivated. The chief tombs are those of two Mahometan saints, named Beha ad Deen, the splendor of religion, and Rukkun ad Deen, the pillar of religion. They have high cupolas ornamented with painted tiles, which give them a magnificent appearance; they are also exceedingly rich, being visited annually by many thousands of pilgrims. The town is inhabited both by Hindoos and Mahometans, many of whom are very expert imitative artists. Long. 71° 19 E., lat. 30° 35′ N.

MOON, *n. s.*
MOON'BEAM,
MOON'CALF,
MOON'EYED, *adj.*
MOON'FISH, *n. s.*
MOON'LESS, *adj.*
MOON'LIGHT, *n. s.* & *adj.*
MOON'SEED, *n. s.*
MOON'SHINE, *n. s.* & *adj.*
MOON'SHINY, *adj.*
MOON'STRUCK,
MOON'TREFOIL, *n. s.*
MOON'WORT,
MOON'Y, *adj.*

Sax. mena, mona; Isl. *mona*; Goth. and Swed. *mena, mana*; Belg. *maan*; Teut. *mon, mond*; Gr. μηνη. The satellite of the earth: a moon-calf is a sort of poetical monster; a false conception: moon-eyed, dim-eyed; purblind: moon-struck; lunatic; affected by the moon: moon-wort, a name for the station flower: moony, lunated. The other compounds are explained by the extracts below.

Their bishop and his clergy, being departed from them by *moonlight*, to choose in his room any other bishop, had been altogether impossible. *Hooker.*

The *moon* shines bright: 'twas such a night as this,
When the sweet wind did gently kiss the trees,
And they did make no noise. *Shakspeare.*

How cam'st thou to be the siege of this *moon-calf*? *Id.*

Thou hast by *moonlight* at her window sung,
With feigning voice, verses of feigning love. *Id.*

If you will patiently dance in our round,
And see our *moonlight* revels, go with us. *Id.*

Pinch him, and burn him, and turn him about,
Till candles, and starlight, and *moonshine* be out. *Id.*

I am some twelve or fourteen *moonshines*
Lag of a brother. *Id. King Lear.*

The division and quavering, which please so much in musick, have an agreement with the glittering of light, as the *moon beams* playing upon a wave. *Bacon's Natural History.*

Diana hath her name from moisten, which is the property of the *moon*, being by nature cold and moist, and is feigned to be a goddess huntress. *Peacham.*

Beneath the mighty ocean's wealthy caves,
Beneath the eternal fountain of all waves,
Where their vast court the mother waters keep,
And, undisturbed by *moons*, in silence sleep. *Cowley.*

Although it was a fair *moonshine* night, the enemy thought not fit to assault them. *Clarendon.*

Demoniack phrenzy, moping melancholy,
And *moonstruck* madness. *Milton's Paradise Lost.*

On the water the *moon-beams* played, and made it appear like floating quicksilver. *Dryden.*

And now four days the sun had seen our woes,
Four nights the *moon* beheld the incessant fire;
It seemed as if the stars more sickly rose,
And farther from the feverish North retire. *Id.*

Assisted by a friend, one *moonless* night,
This Palamon from prison took his flight. *Id.*

I, by the *moonshine*, to the windows went:
And, ere I was aware, sighed to myself. *Id.*

The potion works not on the part designed,
But turns his brain, and stupifies his mind;
The sotted *moon-calf* gapes. *Id. Juvenal.*

Moon-fish is so called, because the tail-fin is shaped like a half-moon, by which, and his odd trussed shape, he is sufficiently distinguished. *Grew's Museum.*

Encountering fierce
The Solymean sultan, he o'erthrew
His *moony* troops, returning bravely smeared
With Panim blood. *Philips.*

I went to see them in a *moonshiny* night. *Addison.*

The Soldan galls the Illyrian coast;
But soon the miscreant *moony* host
Before the victor-cross shall fly. *Fenton.*

What beckoning ghost along the *moonlight* shade
Invites my steps, and points to yonder glade? *Pope.*

The *moon-trefoil* hath a plain orbiculated fruit, shaped like an half-moon. *Miller.*

The *moon-seed* hath a rosaceous flower: the pointal is divided into three parts at the top, and afterward becomes the fruit or berry, in which is included one flat seed, which is, when ripe, hollowed like the appearance of the *moon*. *Id.*

While thirteen *moons* saw smoothly run
The Nen's barge-laden wave,
All these, life's rambling journey done,
Have found their home—the grave. *Cowper.*

'Tis sweet to hear
At midnight on the blue and *moonlit* deep
The song and oar of Adria's gondolier,
By distance mellowed, o'er the waters sweep. *Byron.*

Moon, Luna, in astronomy, one of the heavenly bodies often ranked among the planets; but more properly a satellite, or secondary planet. As all the other planets move primarily round the sun, so does the moon round the earth: her orbit is an ellipsis, in which she is retained by the force of gravity; performing her revolution round the earth, from change to change, in twenty-nine days, twelve hours, and forty-four minutes, and round the sun with it every year: she goes round her orbit in twenty-seven days, seven hours, and forty-three minutes, moving about 2290 miles every hour; and turns round her axis exactly in the time that she goes round the earth, which is the reason of her keeping always the same side towards us; and that her day and night taken together are as long as our lunar month. See Astronomy, Index.

Among the ancients, the moon was an object of prime regard. By the Hebrews she was more regarded than the sun, and they were more inclined to worship her as a deity. The new moons, or first days of every month, were kept as festivals among them, which were celebrated with sound of trumpets, entertainments, and sacrifice. See Numb. xxviii. 11; x. 16; 1 Sam. xx. 5—18. People were not obliged on these days to rest. The feasts of new moons were the miniature representation of the feast of trumpets, which was held on the first of the month Tisri, which was the beginning of the civil year. The Jews, not being acquainted with the physical causes of eclipses, looked upon them, whether of sun or moon, as signs of the divine displeasure. The Grecians looked upon the moon as favorable to marriage; and the full moons or the times of conjunction of the sun or moon, were held the most lucky seasons for celebrating marriages; because they imagined the moon, to have great influence over generation. The full moon was held favorable for any undertaking by the Spartans; and no motives could induce them to enter upon an expedition, march an army, or attack an enemy, till the full of the moon. The moon was supposed both by Greeks and Romans to preside over child-birth. The patricians at Rome wore a crescent on their shoes, to distinguish them from the other orders of men. This crescent was called Lanula. Some say it was of ivory, others that it was worked upon the shoe, others that it was only a particular kind of fibula or buckle.

MOOR, *n. s.* Moor'cock, Moor'hen, Moor'ish, *adj.* Moor'land, *n. s.* Moor'stone, Moor'y, *adj.* Sax. more; Teut. *mor;* Goth. *moar, mær;* Belgic, *moer.* Marsh-land; fen; dark boggy earth or soil: moor-cock and hen are fen-birds well known: moor-stone, a species of granite: moory, marshy; watery; applied to soils.

Let the marsh of Elsham Bruges tell,
What colour were their waters that same day,
And all the *moor* 'twixt Elversham and Dell.
Spenser.

Water-fowls, as seagulls and *moorhens*, when they flock and fly together from the sea towards the shores, foreshew rain and wind. *Bacon.*

The dust the fields and pastures covers,
As when thick mists arise from *moory* vales.
Fairfax.

While in her girlish age she kept sheep on the *moor*, it chanced that a London merchant passing by saw her, and liked her, begged her of her poor parents, and carried her to his home. *Carew.*

In the great level near Thorny, several oaks and firs have lain there till covered by the inundation of the fresh and salt waters, and *moorish* earth exaggerated upon them. *Hale.*

In Essex, *moory* land is thought the most proper. *Mortimer.*

In the south part of Staffordshire they go to the north for seed corn, and they of the north to the south, except in the *moorlands.* *Id. Husbandry.*

The third stratum is of great rocks of *moorstone* and sandy earth. *Woodward on Fossils.*

Or like a bridge that joins a marish
To *moorlands* of a different parish. *Swift.*
Along the *moorish* fens
Sighs the sad genius of the coming storm.
Thomson.

Farewell old Coila's hills and dales,
Her heathy *moors* and winding vales. *Burns.*

Now westlin winds, and slaughtering guns,
Bring autumn's pleasant weather;
The *moorcock* springs, on whirring wings,
Amang the blooming heather. *Id.*

Moor, *n. s.* Ital. and Span. *moro;* Lat. *maurus.* A negro; a black man.

I shall answer that better than you can the getting up of the negro's belly; the *moor* is with child by you. *Shakspeare.*

Moor, *v. a.* & *v. n.* Fr. *morer.* To fasten by anchor or otherwise; to be so fastened or made stationary.

Three more fierce Eurus in his angry mood
Dashed on the shallows of the moving sand,
And in mid ocean left them *moored* at hand.
Dryden.

Æneas gained Cajeta's bay:
At length on oozy ground his gallies *moor,*
Their heads are turned to sea, their sterns to shore.
Id.

My vessel, driven by a strong gust of wind,
Moored in a Chian creek. *Addison's Ovid.*

He visited the top of Taurus and the famous Ararat, where Noah's ark first *moored.*
Arbuthnot and Pope's Mart. Scrib.

Moor (Sir Karel), or Sir Charles, de, a painter of portraits, history, and conversations, born at Leyden in 1656; and a disciple of Gerard Douw, with whom he continued for a considerable time. He afterwards studied successively under Abraham Vanden Tempel, Francis Mieris, and Godfrey Schalcken. He painted the portraits of prince Eugene and the duke of Marlborough on horseback; a picture for which he was created a knight of the Roman empire. He likewise painted the portrait of Peter the Great of Muscovy; and an extraordinary number of other portraits, for which he received great prices. He died in 1738.

Moor, a town of South-West Hungary, unfortunately subject to earthquakes; in January and February 1810 a repetition of shocks threw down towers, dried up the wells, opening new springs, and producing fissures in the earth, which, though but a foot in width, extended to the length of sixty and even 100 fathoms. Inhabitants 2500. Fifteen miles N. N. W. of Stuhl-Weissemberg.

Moor Land, or moory soil, in agriculture, is a black, light, and soft earth, very loose, without

any admixture of stones, and with very little clay or sand. The uppermost stratum of the fen lands is usually of this earth, and it commonly constitutes a moderately thick or deep bed. Intermixed with water it cannot easily be worked up into a paste; and, when with labor worked up into somewhat of a firm mass, its surface appears spongy and porous; and, as soon as dry, it easily moulders away to powder. It is usually soft to the touch, unless it be worked very closely between the fingers; then it shows a mixture of a small quantity of sand, both to the touch and to the eye. It seems indeed to consist almost entirely of pure vegetable matter; and this, lying in such plenty on the surface of the fen-lands, is the cause of their being so very fertile. The great disadvantage of the places which have this soil is their being liable to be glutted with wet. To remedy the inconveniences thence arising, the farmers who rent these lands burn the soil at proper seasons. It burns very freely and easily, the surface readily catching flame; and a substance somewhat bituminous, usually contained among the soil, assists the burning.

MOORE (John), M. D., author of Travels through France and Italy, of Zelucco, a novel, &c. The style of his travels is a model of ease and perspicuity; and in the construction of Zelucco, there are a strength, originality, and true coloring, which will render it a lasting monument of national genius. He died at his house at Richmond, February 20th, 1802. His private character as a man was as good as his public one as an author was great. His early and liberal patronage of Burns affords a specimen of his sensibility as well as of his taste.

Moore (lieutenant-general Sir John), eldest son of the preceding, was born at Glasgow 13th of November 1761. At the age of fifteen he entered the army as an ensign of the fifty-first regiment, and in 1790 was made a lieutenant-colonel. He afterwards served in Corsica, where he was wounded. He accompanied Sir Ralph Abercrombie in 1796 to the West Indies, as brigadier general, and, having assisted in the capture, was appointed governor of St. Lucia. The following year he was employed in Ireland, where he was promoted to the rank of major-general. In 1799 he went to Holland, where he was severely wounded; and was subsequently engaged and again wounded in the expedition to Egypt. He was made a knight of the Bath, after his return to England; and in 1808 commanded a body of troops sent to the assistance of the adventurous Gustavus IV. of Sweden, but he became involved in a dispute with that prince, who placed him under arrest, from which, however, he extricated himself and returned home. In October this year he landed in Spain, at the head of an English army; but after advancing some distance, and meeting with little support from the Spaniards, he felt obliged to retreat before a superior body of the French to Corunna, where was fought the celebrated battle of that name (see Corunna), on the 16th of January 1809, when the general was killed by a cannon-ball, and interred on the field of battle.

MOORING, the act of confining and securing a ship in a particular station, by chains or cables, which are either fastened to the adjacent shore, or to anchors in the bottom. A ship may be either moored by the head, or by the head and stern: i. e. she may be secured by anchors before her, without any behind; or she may have anchors out, both before and behind her; or her cables may be attached to posts, rings, or moorings, which answer the same purpose. When a ship is moored by the head with her own anchors, they are disposed according to the circumstance of the place where she lies, and the time she is to continue therein. Thus, wherever a tide ebbs and flows, it is usual to carry one anchor out towards the flood, and another towards the ebb, particularly where there is little room to range about; and the anchors are laid in the same manner, if the vessel is moored head and stern in the same place. The situation of the anchors, in a road or bay, is usually opposed to the reigning winds, or those which are most dangerous; so that the ship rides therein with the effort of both her cables. Thus, if she rides in a bay, or road, which is exposed to a north wind and heavy sea from the same quarter, the anchors passing from the opposite bows ought to lie east and west from each other: hence both the cables will retain the ship in her station with equal effort against the action of the wind and sea.

MOORINGS, in sea language, are usually an assemblage of anchors, chains, and bridles, laid athwart the bottom of a river or haven, to ride the shipping contained therein. The anchors employed on this occasion have rarely more than one fluke, which is sunk in the water near low-water mark. Two anchors being fixed in this manner, in the opposite side of the river, are furnished with a chain extending across from one to the other. In the middle of the chain is a large square link, whose lower end terminates in a swivel, which turns round in the chain as about an axis, whenever the ship veers about with the change of the tide. To this swivel-link are attached the bridles, which are short pieces of cable, well served, whose upper ends are drawn into the ship at the mooring ports, and afterwards fastened to the masts or cable-bolts. A great number of moorings of this sort are fixed in the harbours adjacent to the king's dock-yards, as Deptford, Chatham, Portsmouth, Plymouth, &c.

MOORLANDS, a tract so called in the north part of Staffordshire, where the land rises gradually into small hills, which run through the midst of England in one continued ridge, rising higher and higher to Scotland, and sending forth many rivers. The soil here is so foul and cold that the snows lie almost all the year on the tops of the hills; and it is withal very rugged and barren: it, however, yields plenty of coal, lead, copper, rance-marble, and mill-stones; and some of the limestone hills bear a sweet though short grass, very grateful to the oxen, of which there is a very good breed.

MOORS. See Morocco.

Moors, in the Isle of Man, those who summon the courts for the several sheadings; such as the lords bailiffs. The office is similar to that of bailiff of the hundred.

MOORSHUDABAD, a city of Bengal, and the capital of that province during about half the eighteenth century. It was originally called Mukhsoosabad.

Including Cossimbazar this place extends eight miles along the eastern bank of the Bhagirutty River, about 129 miles above Calcutta. The houses have seldom above one story, and tiled roofs; the streets are narrow and dirty; but the nabob's palace, which has been lately rebuilt, and the imambury and mosques are in good condition. It is also the residence of the British civil establishment, and a judicial court of circuit. It was plundered by the Mahrattas in 1742, but still carries on a considerable trade in silk, raw and manufactured; and, notwithstanding the river is nearly dry during six months, the surrounding district is very fertile. During the rainy season it is subject to inundation, which has frequently rendered the city unhealthy.

MOOSSO, a town of Southern Africa, to the north of Leetakoo, and capital of a tribe called the Murahlongs. It is said to be much larger than Leetakoo, and to contain from 10,000 to 12,000 inhabitants.

MOOT, *v. a.* & *adj.* Lat. motian; Goth. *mota, motgian,* to encounter. To dispute; plead: hence to state a point of law by way of exercise, as was commonly done in the inns of court: a moot case or point is a point or case unsettled and disputable.

In this *moot case* your judgment to refuse,
Is present death. *Dryden's Juvenal.*

Would you not think him cracked, who would require another to make an argument on a *moot point,* who understands nothing of our laws?
Locke on Education.

Let us drop both our pretences; for I believe it is a *moot point,* whether I am more likely to make a master Bull, or you a master Strutt.
Arbuthnot's History of John Bull.

MOP, *n. s.* & *v. a.* Wel. *moppa;* Lat. *mappa.* A flocky household utensil, used with a long handle: to mop is to take up or clean with a mop.

Such is that sprinkling which some careless quean
Flirts on you from her *mop,* but not so clean.
You fly, invoke the gods; then turning, stop
To rail; she singing, still whirls on her *mop.*
Swift.

MOP, *v. n.* Either from MOCK, as Dr. Johnson conjectures: or MOUTH, which see. To make wry mouths in contempt.

Each one tripping on his toe
Will be here with *mop* and mow.
Shakspeare.

Fire fiends have been in poor Tom at once; of lust, as Obdicut; Hobbididen, prince of dumbness; Mahu, of stealing; Mohu, of murder; and Flibbertigibbet, of *mopping* and mowing, who since possesses chamber-maids. *Id.*

An ass fell a *mopping* and braying at a lion.
L'Estrange.

MOPE, *v. n.* & *v. a.* } Barb. Lat. *mopus,* of
MOPUS, *n. s.* } *myops.* To be stupid; inactive; drowsy: to make stupid or spiritless.

What a wretched and peevish fellow is this king of England, to *mope* with his fat-brained followers.
Shakspeare.

Even in a dream, were we divided from them,
And were brought *moping* hither. *Id.*

Josiah is not *moped* with a distractive grief, or an astonishing fear; but, in the height of his passion, sends five choice messengers to Huldah the prophetess, to enquire of the Lord, for himself, for Judah. *Bp. Hall.*

Intestine stone, and ulcer, cholick pangs,
Demoniack frenzy, *moping* melancholy,
And moon-struck madness.
Milton's Paradise Lost.

They say there are charms in herbs, said he, and so he threw a handful of grass; which was so ridiculous, that the young thief took the old man to be *moped.* *L'Estrange.*

Severity breaks the mind: and, then in the place of a disorderly young fellow, you have a low-spirited *moped* creature. *Locke.*

The busy craftsmen and o'erlaboured hind
Forget the travel of the day in sleep;
Care only wakes, and *moping* pensiveness;
With meagre discontented looks they sit,
And watch the wasting of the midnight taper.
Rowe.

I'm grown a mere *mopus;* no company comes
But a rabble of tenants. *Swift's Miscellanies.*

MOP'PET, *n. s.* } From *mop.* A puppet
MOP'SEY. } made of rags; a doll; a little girl.

Our sovereign lady: made for a queen?
With a globe in one hand, and a sceptre in the other?
A very pretty *moppet!* *Dryden's Spanish Fryar.*

MOPSUS, in fabulous history, a celebrated prophet, son of Apollo, by Manto, the daughter of Tiresias, who flourished about the time of the Trojan war. After death he was ranked among the gods, and had an oracle at Malia, celebrated for the true and decisive answers which it gave.

MOPSUS, the son of Ampyx and Chloris, born at Titaressa in Thessaly. He was the prophet and soothsayer of the Argonauts, and died at his return from Colchis, by the bite of a serpent in Libya. Jason erected a monument to him on the sea-shore, where afterwards Africanus built a temple where he gave oracles. He has often been confounded with the son of Manto, as their professions and their names were the same.

MOQUEBAH, a province and town of Peru, sixteen leagues from the Pacific Ocean. The province though cold, is fertile in wine, brandy, and olives. It is forty-two leagues long. The town is situated at the foot of the Cordillera in a pleasant valley, and has a good church and several convents. It suffered severely by an earthquake in 1715. Population 6000: seventy miles south of Arequipa.

MORADABAD, a considerable town of Hindostan in the province of Delhi, and district of Bareily. It is delightfully situated on the Ramgonga River, and the houses are generally built of stone or brick, two or three stories high. It formerly was the residence of one of the Rohilla chiefs, and had a mint. It is now the station of the British civil establishments. Long. 78° 45′ E., lat. 28° 52′ N.

MORÆA, in botany, a genus of the monogynia order and triandria class of plants, natural order sixth, ensatæ: COR. hexapetalous; the three interior petals patent, the rest like those of the iris.

MORAI, the name given at Otaheite to the burying-grounds, which were also places of worship, and consisted of a pile of stone raised pyramidically upon an oblong base or square 267 feet long and eighty-seven wide. On each side was a flight of steps; those at the sides being broader than those at the ends; so that it terminated not in a square of the same figure with the base, but in a ridge like the roof of a house. There were eleven of these steps to one of these morais, each four feet high, so that the height of the pile was forty-four feet; each step was formed of one course of white coral stone, neatly squared and polished; the rest of the mass (for there was no hollow within) consisted of round pebbles. The foundation was of rock stones, also squared. In the middle of the top stood an image of a bird carved in wood, and near it the broken one of a fish carved in stone. The whole of this pyramid made part of one side of a spacious area or square 360 feet by 354, walled in with stone, and paved with flat stones in its whole extent. About 100 yards to the west of this building was another paved area or court, in which were several small stages raised on wooden pillars about seven feet high, called by the Indians ewattas, and seem to be a kind of altars, as upon these were placed provisions of all kinds, as offerings to their gods. On some of them were seen whole hogs, and on others the skulls of above fifty, besides the skulls of many dogs. The male deities (for they had them of both sexes) were worshipped by the men, and the female by the women; and each had morais, to which the other sex was not admitted.

MOR'AL, *adj.*, *n. s.* & *v. n.*
MOR'ALIST, *n. s.*
MORAL'ITY,
MOR'ALIZE, *v. a.* & *v. n.*
MOR'ALLY, *adv.*
MOR'ALS, *n. s.*
} Fr. *morale*; Lat. *moralis*. Relating to duty; or to the practice of man in regard to virtue or vice; virtuous: belonging to manners; and hence, according to the customary manner; popular; such as is generally admitted, as in the phrase 'a moral certainty:' a moral is a doctrine or general duty inculcated in a fable; and the word is used by Prior, after the French, for morality: to moral, by Shakspeare for to moralize: a moralist is a teacher of human duties: morality, ethics; the science of morals or MORAL PHILOSOPHY, see the article: to moralize, to explain or apply in a moral sense; to speak or write on moral subjects: morally, ethically; virtuously; popularly, or as generally understood: morals, used only in the plural in this sense; behaviour in respect to others; practice in regard to vice or virtue.

Fierce warres and faithful loves shall *moralize* my song. *Faerie Queene.*

Keep at the least within the compass of *moral* actions, which have in them vice or virtue. *Hooker.*

In *moral* actions divine law helpeth exceedingly the law of reason to guide life, but in supernatural it alone guideth. *Id.*

France spreads his banners in our noiseless land,
With plumed helm thy slayer begins his threats,
Whilst thou, a *moral* fool, sit'st still and criest.
Shakspeare.

Benedictus! why benedictus? you have some *moral* in this benedictus.

—*Moral!* No, by my troth I have no *moral* meaning; I meant plain holy thistle. *Id.*

When I did hear
The motley fool thus *moral* on the time,
My lungs began to crow like chanticleer,
That fools should be so deep contemplative.
Id.

Did he not *moralize* this spectacle?
—O, yes, into a thousand similies. *Id.*

We may too certainly conclude, that much more than a single act of contrition, and a *moral* revocation, that is, a sorrow and a nolition of the past sins, may be done upon our death bed without effect, without a being accepted to pardon and salvation. *Jer. Taylor.*

Physical and mathematical certainty may be stiled infallible; and *moral* certainty may properly be stiled indubitable. *Wilkins.*

I am from the nature of the things themselves *morally* certain, and cannot make any doubt of it, but that a mind free from passion and prejudice is more fit to pass a true judgment than such a one as is biassed by affections and interests. *Id.*

Mathematical things are capable of the strictest demonstration; conclusions in natural philosophy are capable of proof by an induction of experiments; things of a *moral* nature by *moral* arguments; and matters of fact by credible testimony. *Tillotson.*

Now, brandished weapons glittering in their hands,
Mankind is broken loose from *moral* bands;
No rights of hospitality remain,
The guest, by him who harboured him, is slain.
Dryden.

The *moral* is the first business of the poet, as being the groundwork of his instruction; this being formed, he contrives such a design or fable as may be most suitable to the *moral*. *Id. Dufresnoy.*

To take away rewards and punishments is only pleasing to a man who resolves not to live *morally*. *Dryden.*

It is *morally* impossible for an hypocrite to keep himself long upon his guard. *L'Estrange.*

This fable is *moralized* in a common proverb. *Id.*

Because this, of the two brothers killing each other, is an action *morally* unnatural; therefore, by way of preparation, the tragedy would have begun with heaven and earth in disorder, something physically unnatural. *Rymer.*

We have found, with a *moral* certainty, the seat of the Mosaical abyss. *Burnet's Theory of the Earth.*

That they may quit their *morals* without any discredit to their intellectuals, they fly to several stale, trite, pitiful objections and cavils. *South.*

The *morality* of an action is founded in the freedom of that principle, by virtue of which it is in the agent's power, having all things ready and requisite to the performance of an action, either to perform or not perform it. *Id. Sermons.*

By good, good *morally* so called, bonum honestum, ought chiefly to be understood; and that the good of profit or pleasure, the bonum utile or jucundum, hardly come into any account here. *South.*

Some, as corrupt in their *morals* as vice could make them, have yet been solicitous to have their children soberly, virtuously, and piously brought up. *Id. Sermons.*

The advice given by a great *moralist* to his friend was, that he should compose his passions; and let

that be the work of reason, which would certainly be the work of time. *Addison.*

Their *moral* and œconomy,
Most perfectly they made agree. *Prior.*

High as their trumpets tune his lyre he strung,
And with his prince's arms he *moralized* his song.
Id.

The concurring accounts of many such witnesses render it *morally*, or, as we might speak, absolutely impossible that these things should be false.
Atterbury's Sermons.

Learn then what *morals* criticks ought to show:
'Tis not enough wit, art, and learning join;
In all you speak, let truth and candour shine.
Pope.

All nations have agreed in the necessity of a strict education, which consisted in the observance of *moral* duties. *Swift.*

The system of *morality*, to be gathered out of the writings of ancient sages, falls very short of that delivered in the gospel. *Id. Miscellany.*

I found a *moral* first, and then studied for a fable, but could do nothing that pleased me. *Id.*

A *moral* universality, is when the predicate agrees to the greatest part of the particulars which are contained under the universal subject. *Watts.*

A necessity of sinning is as impossible in *morality*, as any the greatest difficulty can be in nature.
Baker on Learning.

There is nothing that God has judged good for us that he has not given us the means to accomplish both in the natural and *moral* world. *Burke.*

From heaven, he cried, descends the *moral* plan;
And gives society to savage man. *Darwin.*

Every one must see and feel, that bad thoughts quickly ripen into bad actions; and that if the latter only are forbidden, and the former left free, all *morality* will soon be at an end. *Porteus.*

MORAL PHILOSOPHY.

Moral Philosophy. 'Ethics,' says Mr. Locke, 'is the seeking out those rules and measures of human actions which lead to happiness, and the means to practise them. The end of this is not bare speculation and the knowledge of truth; but right, and a conduct suitable to it.' 'Moral philosophy,' says Dr. Hutcheson, 'which is the art of regulating the whole of life, must have in view the noblest end; since it undertakes, as far as human reason can go, to lead us into that course of life which is most according to the intention of nature, and most happy: to which end whatever we can obtain by other arts should be subservient. And since all philosophers, even of the most opposite schemes, agree, in words at least, that happiness either consists in virtue and virtuous offices, or is to be obtained and secured by them, the chief points to be enquired into in morals must be, what course of life is according to the intention of nature? wherein consists happiness? and what is virtue?' 'Moral philosophy (Encyclopædia Britannica) is the science of manners or duty; in other words, it is the knowledge of our duty and felicity, or the art of being virtuous and happy. It is denominated an art, as it contains a system of rules for becoming virtuous and happy. It is likewise called a science, as it deduces those rules from the principles and connexions of our nature, and proves that the observance of them is productive of our happiness. It is an art and a science of the highest dignity, importance, and use. Its object is man's duty, or his conduct in the several moral capacities and connexions which he sustains. Its office is to direct that conduct; to show whence our obligations arise, and where they terminate. Its use, or end, is the attainment of happiness; and the means it employs are rules for the right conduct of our moral powers.' 'Moral philosophy, morality, ethics, casuistry, natural law,' says the plain practical Paley, 'mean all the same thing, namely, that science which teaches men their duty and the reasons of it.' 'The science of ethics,' says Dr. Brown (lecture LXXIII.), 'has relation to our affections of mind, not simply as phenomena, but as virtuous or vicious, right or wrong.'

More of these definitions have been proposed which, as Dr. Paley says concerning the distinctions of virtue, it is not worth while to set down. We will merely add, as a kind of curiosity, the correction of the doctor's definition attempted by the Unitarian triumviri the Rev. W. Shepherd, the Rev. J. Joyce, and the Rev. Lant Carpenter, LL. D., in their Systematic Education. 'Precision of language and correctness of thought,' they inform us, 'are so dependent upon one another, that it may be worth while to point out a singular error into which that eminently useful writer Dr. Paley has fallen in his very first sentence. 'Moral philosophy, morality, ethics, casuistry, natural law,' he says, 'mean all the same thing, namely, that science which teaches men their duty, and the reasons of it:' but he is undoubtedly wrong; moral philosophy is the science of morals: it investigates the grounds and reasons of duty: it traces that quality of actions and dispositions which renders them obligatory upon a reasonable being like man: it shows what classes of actions and dispositions possess this quality: it ascertains by this means the best rule of life: and it lays down those principles by the aid of which the rule of life may be most successfully applied. The terms ethics and morals, though correctly applied to the science, are more appropriate to the art of morality (understanding by the word art, as opposed to science, a system of rules for the proper attainment of any end); and in this sense the terms are not strictly applicable to investigations respecting the grounds and reasons of duty. Nevertheless the art of morals can scarcely fail to include some reasoning respecting its foundation and principles, just as the science of morals can scarcely fail to include, in some measure, the preceptive part. Morality commonly refers to the quality of an action or disposition which makes it the subject of reward or punishment; but it is also used (as when we speak of a system of morality) in reference to the art of morals. Casuistry has for its sole object the difficulties of duty, and classes sometimes with the science, and sometimes with the art of morals. It often requires subtle investigations,

and nice and refined distinctions; and, when it is not regulated by an invariable attention to the grand principles of morality, it often leads to great intricacy and perplexity. Such discussions have indeed not unfrequently led, through the sophistry of vanity or self-justification, to opinions which confound all moral distinctions. The moral reasoner must have some fixed points of duty, and when he has seen that these have a solid foundation in the nature of the human mind, and the circumstances of man, he ought on no account to give them up. If any opinions are in clear opposition to them, the principles on which those opinions are founded should be regarded as absurd, if not practically dangerous.

'The term natural law denotes that system of duty which is derived from considerations independent, or supposed to be independent, of divine revelation, or the law of God.'

We hope the reader can make something out of all this elaborate correction of Paley's singular error, by critics of extraordinary precision of language and correctness of thought. If however he be disposed with us to prefer the error to the correction, perhaps he will consent to the following slight modification of Paley's statement:—Moral philosophy, morality, ethics, casuistry, natural law, in so far as they mean any thing, mean much the same thing, and relate to the duty of men and the reasons of it. This is at least better than unmeaning petty refinements, destitute of even the semblance of logical and moral analysis. We must not however tarry longer at the threshold, but proceed to the object proposed, which is not to compile or construct a system of moral philosophy, but to give a view of the systems which have been attempted. Of course we can advert only to the more eminent treatises and theories of morals: and here the ancient moral philosophers claim some attention, but we will dispose of them as quickly as possible, that we may reserve more space for those of modern times.

Socrates is universally regarded as the father of moral philosophy; and, as some one remarks, he is decidedly the hero of all the Ciceros and declaimers upon morality; yet, after all that has been said and sung to his memory, we may, in allusion to his own modest confession of ignorance, truly profess to know only this—that we know almost nothing about him, and still less about his moral philosophy. We are told that, observing with regret how much the opinions of the Athenian youth were misled by philosophers who spent all their time in refined speculations concerning nature and the origin of things, and by sophists who taught in their schools the arts of false eloquence and deceitful reasoning, he formed the wise and generous design of instituting a new and more useful method of instruction, and assumed the character of a moral philosopher: that he estimated the value of knowledge by its utility, and recommended the study of geometry, astronomy, and other sciences, only so far as they admit of a practical application to the purposes of human life: that his great object, in all his conferences and discourses, was to lead men to an acquaintance with themselves, to convince them of their follies and vices, and to furnish them with useful moral instruction. All this was very good and laudable; and Cicero awards the praise to Socrates of being the first who called down philosophy from heaven to earth, and introduced her into the public walks and domestic retirements of men, that she might instruct them concerning life and manners.

The system of morality which Socrates made it the business of his life to teach is said to have been raised on the firm basis of religion. But what that firm basis of religion was, it is difficult, or rather impossible, to ascertain, amidst the obscure, doubtful, and conflicting statements respecting it which have come down to our times.

The first principles of virtuous conduct are, according to Socrates, common to all mankind, and therefore laws of God, which cannot be violated with impunity. 'It is frequently possible (Memorabilia of Socrates by Xenophon) for men to screen themselves from the penalty of human laws; but no man can be unjust or ungrateful without suffering for his crime: hence I conclude that these laws must have proceeded from a more excellent legislator than man.'

It is probable that the moral theory of Socrates was much the same as that of Shaftesbury and Hutcheson, and that the opinions which he uttered in his discourses were variously modified and worked up into those fine sentiments about virtue which were flourished in the speeches and writings of subsequent moralists, and particularly the stoics.

If we can glean little satisfactory information from the literary remains of antiquity respecting Socrates, we are equally unsuccessful as to the moral philosophy of his illustrious pupil Plato, who, if he received any sound principles from his moral master, took good care to conceal them from the perception of the profane vulgar. The most notable particulars of his moral doctrine are such as the following:—Our highest happiness consists in the knowledge and contemplation of the first good, which is mind or God. All those things which are called good by men are in reality such only so far as they are derived from the first and highest good. The only power in human nature which can acquire a resemblance to the supreme God is reason. The minds of philosophers are fraught with valuable treasures; and, after the death of the body, they shall be admitted to divine entertainments; so that whilst, with the gods, employed in surveying the fields of truth, they will look down with contempt upon the folly of those who are contented with earthly shadows. Goodness and beauty consist in the knowledge of the first good and the first fair. That only which is becoming is good: therefore virtue is to be pursued for its own sake; and, because it is a divine attainment, it cannot be taught, but is the gift of God. He alone who has attained the knowledge of the first good is happy. The end of this knowledge is to render men as like to God as the condition of human nature will permit. This likeness consists in prudence, justice, sanctity, temperance. In order to attain this state it is necessary to be convinced that the body is a prison, from which the soul must be released before it can arrive at the

knowledge of those things which are real and immutable. Virtue is the most perfect habit of mind which adorns the man, and renders him firm, resolute, and consistent, in action and speech, in solitude and society. The virtues are so nearly allied that they cannot be separated; they are perfect, and therefore neither capable of increase nor of diminution. The passions are motions of the soul excited by some apparent good or evil: they originate in the irrational parts of the soul, and must be regulated and subdued by reason. This is perhaps sufficient as a specimen of the wisdom and philosophy of Plato. Those who wish for more may consult his writings, Brucker's Historia Critica Philosophiæ, or its abridgment by Enfield.

After Plato some notice is due to his disciple Aristotle, who was not so mystical, and more acute and subtle, as well as more profound and comprehensive than his master. It is very difficult, however, to extract any thing definite, intelligible, or useful, from his writings. The following is a brief enumeration of his more remarkable notions about morals:—Felicity consists neither in the pleasures of the body, nor in riches, nor in civil honor, power, or rank, nor in the contemplation of truth, but in the virtuous exercise of the mind. A virtuous life is in itself a source of delight; external good, such as friends, riches, power, beauty, and the like, are instruments or means by which illustrious deeds may be performed. Virtue is either theoretical, or practical: theoretical virtue consists in the due exercise of the understanding; practical, in the pursuit of what is right and good. Practical virtue is acquired by habit and exercise.

Virtue, as far as it respects ourselves, and the government of the passions, consists in preserving that mean in all things which reason and prudence prescribe; it is the middle path between two extremes, one of which is vicious through excess, the other through defect. Virtue is a spontaneous act, the effect of design and volition. It is completed by nature, habit, and reason. The first virtue is fortitude, which is the mean between timidity and rash confidence. Temperance is the mean between the excessive pursuit and the neglect of pleasure. Liberality is the mean between prodigality and avarice. Magnificence preserves a due decorum in great expenses, and is the mean between haughty grandeur and low parsimony. Magnanimity respects the love of applause, and the judgment a man forms of his own merit; and holds the middle place between meanness of spirit and pride. Moderation respects distinction in rank, and is the mean between ambition and the contempt of greatness. Gentleness is the due government of the irascible passions, and observes a proper medium between anger and insensibility. Affability respects the desire of pleasing in the ordinary occurrences of life, and pursues the middle path between moroseness and servility. Simplicity in the practice of virtue is the mean between arrogant pretensions to merit, and an artful concealment of defects. Urbanity respects sports and jests, and avoids rusticity and scurrility. Modesty is a certain apprehension of incurring disgrace, and lies in the middle between impudence and bashfulness Justice includes the observance of the laws for the preservation of society, and the discharge of obligations and debts between equals. Equity corrects the rigor of laws, or supplies their defect. Friendship is nearly allied to virtue; it consists in perfect affection towards an equal. Friendships are formed for the sake of pleasure, convenience, or virtue. Friendship is cherished by mutual acts of generosity; it is begun in kindness, and preserved by concord; its end is the pleasant enjoyment of life. Pleasures are essentially different in kind. Disgraceful pleasures are unworthy of the name. The purest and noblest pleasure is that which a good man derives from virtuous actions. Happiness, which consists in a conduct conformable to virtue, is either contemplative or active. Contemplative happiness, which consists in the pursuit of knowledge and wisdom, is superior to active happiness, because the understanding is the higher part of human nature, and the objects on which it is employed are of the noblest kind. The happiness which arises from external possessions is inferior to that which arises from virtuous actions; but both are necessary to produce perfect felicity. This may serve as a specimen of the moral philosophy which is to be found in Aristotle's book of Ethics, in his Greater Morals, and his discourse on the Virtues. The remarks (for they cannot be called principles or reasonings), are miserably poor philosophically considered; yet they have sufficient semblance of truth and excellence to catch even aged boys; and the reader must be able to recognise them as familiar acquaintances; for they have been much hackneyed. Virtue, as consisting in the golden mean between two extremes, has had many admirers, and has been presented under very many forms and aspects. All the world has heard of the sapience of Socrates, and without all controversy he must have possessed much more moral wisdom than Plato or Aristotle, both of whom, like some modern moral philosophers, were much fonder of metaphysics than of ethics; and, like these too, they were very apt to get beyond their depth.

As a sort of middle link, between the moral philosophy of Socrates and that of the Stoics, some notice may be taken of the doctrine of the Cynics, so designated, it would seem, from the snarling severity of their temper, in which they gloried as the point of honor, or distinguishing peculiarity of their sect. Yet there were some good points about them, and their moral maxims and wise saws will bear an advantageous comparison with those of any of the ancient sages.

'Virtue,' say they, 'alone is a sufficient foundation for a happy life. Virtue consists not in a vain ostentation of learning, or an idle display of words, but in a steady course of right conduct. Wisdom and virtue are the same: a wise man will always be contented with his condition, and will live rather according to the precepts of virtue, than according to the laws or customs of his country. Wisdom is a secure and impregnable fortress; virtue, armour which cannot be taken away. Whatever is honorable is good; whatever is disgraceful is evil. Virtue is the only bond of friendship. It is better to associate with a few good men against the vicious multitude, than

to join the vicious, however numerous, against the good. The love of pleasure is a temporary madness. As rust consumes iron, so does envy consume the heart of man. That state is hastening to ruin in which no difference is made between good and bad men. The harmony of brethren is a stronger defence than a wall of brass. A wise man converses with the wicked as a physician with the sick, not to catch the disease, but to cure it. The most necessary part of learning is to unlearn our errors. A philosopher gains at least one thing from his manner of life, the power of conversing with himself. Virtue of mind, as well as strength of body, is chiefly to be acquired by exercise and habit. Nothing can be accomplished without labor, and every thing may be accomplished with it. Even the contempt of pleasure may, by the force of habit, become pleasant. All things belong to wise men to whom the gods are friends. The ranks of society originate from the follies and vices of mankind, and are therefore to be despised. Laws are necessary in a civilised state; but the happiest condition of human life is that which approaches the nearest to a state in which all are equal, and the only ground of distinction is virtue. The end of philosophy is to subdue the passions, and prepare for every condition of life.'

There is something of a mental and moral elevation about these maxims, and they are manifestly the rudiments of all the doctrines of the Stoics. They are ascribed to Antisthenes and Diogenes; and there can be no reasonable doubt that many things reported of these Cynics unfavorable to their reputation were mere calumnies, invented and propagated by malignity. They might offend such a sickly sense of propriety as that of their Grecian contemporaries without rudeness and insolent brutality.

The Stoics (thus designated from the Greek word stoa, the portico or porch of their school, said to have been the most famous in Athens), at the head of whom stands Zeno, the founder of the sect, are to be considered as the Cynics under a new name and different modification of doctrine and discipline. But it is difficult to give a brief statement of their moral philosophy. Like the other ancient philosophers, they were much perplexed with the great question concerning the origin of evil. Some of them adopted the notion of the Platonists, and ascribed it to the evil or perversely refractory nature of matter, which it was not in the power of the Great Artificer to change; but most of them attempted to relieve the difficulty by having recourse to fate, saying that evil was the necessary consequence of that eternal necessity, to which the great Whole, comprehending both God and matter, is subject. Indeed the sturdy Stoic had another method of getting rid of the difficulty and of evading the notion; or, at least the admission of evil altogether; for that pain was not an evil he would utter with a groan extorted by the force of suffering.

It was their fundamental doctrine in ethics, that one ultimate end ought, for its own sake, to be pursued; and that this end was to live agreeably to nature, or to be conformed to the law of fate by which the world is governed. Strange things were propounded and asserted by them on this head; such as that we should yield to the impressions of nature, contemplate truth, and imitate God, by making the eternal reason and immutable law of the universe the rule of our actions; that to live according to nature is virtue, and virtue is happiness; that every man, having within himself a capacity of discerning and following the law of nature, has his happiness in his own power, and is a divinity to himself; that external things contribute nothing towards happiness, and therefore are not in themselves good; that pain, which does not belong to the mind, is no evil; that the wise man will be happy in the midst of torture; that every virtue being a conformity to nature, and every vice a deviation from it, all virtues and vices are equal; that the real wise man (a sort of beau ideal man of the Stoical brain), feels neither pleasure nor pain; that he exercises no pity; that he is free from faults; that he is divine; that he can neither deceive nor be deceived; and much more of the same sort which it is not worth while to set down.

The Stoics distinguished duties into three classes (and the same distribution of them is almost universally adhered to in modern times), as they respect God, ourselves, and our fellow-creatures. The duties of religion are, to think justly concerning God, and to worship him piously. He thinks justly of God who believes him to be the supreme director of human affairs, and the author of all that is good or fitting in human life. He worships God piously who reveres him above all beings; who perceives and acknowledges him in all events; who is in every thing resigned and obedient to his will; who patiently receives whatever befals him, from a persuasion that whatever God appoints must be right; and who cheerfully follows wherever Divine Providence leads him, even though it be to suffering and death.

The sum of man's duty towards himself is, to subdue his passions of joy and sorrow, hope and fear, and even pity. He who is, in this respect, perfectly master of himself is a wise man; and in proportion as we approach a state of apathy we advance towards perfection. Virtuous self-command consists not in preventing the casual impressions of external objects upon the senses, in which the mind is rather passive than active; but in not giving a voluntary assent to those passions which external objects excite. A wise man may justly and reasonably withdraw from life whenever he finds it expedient; not only because life and death are among those things which are in their nature indifferent, but because life may be less consistent with virtue than death. Since all duty arises from a conformity to nature, it may happen that a man may be in such circumstances, that to remain in life may be more contrary to nature than to depart. A wise man will, at the close of every day, take a retrospective survey of his words and actions, that he may confess his errors and amend. The first and noblest exercise of wisdom is to examine ourselves, and regulate our dispositions and actions by the law of virtue. Hence will arise self-denial, and a contempt of pleasure. A wise man will never suffer himself to be diverted from his duty by any prospect of

indulgence, or any fear of loss, pain, or death.

The duty we owe to others is to love all men, even our enemies. A good man will love his neighbour, will abstain from injuring him, and take pleasure in protecting, assisting, and benefiting him. He will not think that he is born for himself, but for the common good of mankind. He will consider himself sufficiently rewarded by the consciousness of well-doing, and will never cease to do good, though he may have no witness of his deeds or prospect of receiving any applause or recompense for his beneficence. The wise man never remits the punishment due to a criminal through pity, which is a weakness not to be indulged; but, in cases where reason suggests sufficient grounds for clemency, he will not treat a delinquent with rigor. He will relieve the sick, assist the shipwrecked, afford protection to the exile, or supply the hungry with food, but with an undisturbed mind and a serene countenance; disdaining all sorrow arising from sympathy, as well as from personal sufferings. No one is more ready than the wise man to exercise lenity and benignity, and to attend to the welfare of those around him, and the general interest of mankind.

There is in all this perhaps not a little extravagance and absurdity; and something of very mischievous moral tendency; but there is much also truly excellent and noble,—'good and profitable' to men. And when we consider the peculiar circumstances of the ages in which the stoical doctrines chiefly flourished, which presented every where around the few reflective and contemplative minds privileged with something of right thought and good feeling, a cold and gloomy despotism, that permitted them only to gaze on misery if they did not strive to rise wholly above it, and set evil at defiance; we cannot wonder that a philosophy which gave, or which promised, aid to this necessary elevation above the scene of human suffering and ignominy, should have been the favorite philosophy of every better spirit,—of all those whom at the distance of so many centuries we still venerate, as if they were more than mortal deliverers of mankind. Indeed, some have been disposed to consider the stoical philosophy as a special provision of nature, or as raised up in the course of providence in aid of oppressed humanity. 'Among the different schools,' says Apollonius in his Eulogy of the Emperor Marcus Aurelius Antoninus, 'he soon found one which taught man to rise above himself. It discovered to him a kind of new world, in which pleasure and pain were annihilated; where the senses had lost all their power over the soul; where poverty, riches, life, death, were nothing, and virtue alone existed. Romans! it was this philosophy which gave you Cato and Brutus, and which supported them amidst the ruins of liberty. It extended and increased under your tyrants. It seemed to have become necessary to your oppressed ancestors, whose precarious life was incessantly under the axe of the despot. In those times of degradation, it alone maintained the dignity of human nature. It taught to live—it taught to die; and, while tyranny was degrading the soul, it lifted it up again with more force and grandeur. This heroic philosophy was made for heroic souls. Aurelius marked, as one of the most fortunate days of his whole life, that day of his boyhood when he first heard of Cato. He preserved with gratitude the names of those also who made him acquainted with Brutus and Thraseas; and he thanked the gods that he had enjoyed the privilege of reading the maxims of Epictetus.'

This emperor was himself one of the most illustrious specimens of the doctrine of Zeno, which found in him a favorable soil; and we willingly yield ourselves up for a time to the impassioned eloquence of his stoical panegyrist, which is almost equalled in intensity of admiration by philosophers of recent times. 'If,' says Montesquieu, De l'Esprit des Lois, liv. xxiv. chap. 10, 'I could for a moment cease to think that I am a Christian, I should not fail to rank the destruction of the sect of Zeno among the misfortunes of the human race. It was extravagant only in feelings which possess a moral grandeur,—in the contempt of pleasures and pains. It alone made great citizens and great men; it alone made emperors worthy of being called great. While the stoics regarded as nothing riches, grandeur, pleasures, and afflictions, they occupied themselves solely with laboring for the happiness of others in the discharge of the various social duties. They seemed to regard that holy spirit, the portion of the divinity which they believed to be in man, as a sort of bountiful providence that was watching over the human race. Born for society they considered that their office was to labor for its good; and they labored at little cost to the society which they benefited, because their reward was all within themselves: their philosophy sufficed for their happiness; or rather the happiness of others was the only accession which could increase their own.'

This we must remember is panegyric, which usually admits of much deduction and abatement. That there was much of what was very fine and brilliant about the moral philosophy of Zeno and his followers is readily admitted, but we are not quite so confident about its moral efficacy, or that what was so fine in theory and beautiful on paper worked well in practice. The very best of the stoics were after all men of very equivocal character. And if, as we believe Dr. Campbell has somewhere remarked, those who overstrain piety or virtue so as to render it impracticable be its greatest enemies, we fear Zeno, Cleanthes, and Chrysippus, can hardly be ranked among its friends. It is well to have a high mark of moral excellence, because the higher we aim the higher we are likely to rise in actual attainment. The mark, however, must not be placed above the reach of possibility, or beyond our very thoughts and persuasions, and expectations. But, if some parts of the stoical morality had been as attainable in practice as we deem them absurd and impossible, they would still have been the reverse of real excellence or virtue. 'If it had been possible for human nature to feel an absolute indifference as to every thing external, unless from some relation which it bore, or was imagined to bear, to the Divinity, how much of all that tenderness which renders

the domestic and friendly relations so delightful, would have been destroyed by the mere cessation of the little pleasures and little exercises of kindness and compassion which foster the benevolent regard. In relation to these private affections, the stoical system must have been practically injurious to virtue.'

One peculiarity of the moral philosophy of Zeno is very attainable; but there are comparatively few moral reasoners who will applaud it, though some have been disposed to justify it. The reader will perceive we allude to suicide, which had the fullest permission, if not the merit, of an act of moral heroism awarded to it,—at least there was nothing of blame or disgrace associated with it in the mind of a stoic. This indeed is a strange anomaly in a moral system, especially in a system extravagantly boastful of an impracticable kind of resignation, patience, fortitude, and of conformity to nature and of submission to the will of God. On the whole, we must conclude that the ethics of Zeno and his followers, however splendid, and in some respects good, deviated as a system from all sound principles, and had a tendency to produce artificial characters, and to encourage moral affectation and hypocrisy. The piety taught by this system is nothing but a quiet submission to irresistible fate. The self-command enjoined would annihilate the best affections of the heart, and many of the most endearing virtues of life. The indulgence granted to suicide is inconsistent not only with the genuine principles of piety, but even with that constancy which was the most essential ingredient of stoical perfection: and was, therefore, itself a suicide of the scheme.

There is one remark more before leaving the system of the stoics. The reader must have perceived, in the best and truly excellent parts of it, a striking resemblance of the moral features of the gospel, or something like the spirit and sentiments of Christianity: such as self-denial, resignation to the divine will, universal benevolence and beneficence, doing good to all men, relieving the afflicted, and loving even enemies. This may be accounted for in various ways. The coincidence might perhaps be casual, or Christianity might borrow from stoicism, or the latter might borrow from the former. Now of all these three suppositions the last is the only one that we consider at all probable. It is in the latest editions of stoicism that we find most resemblance of Christian principle and sentiment. It is comparatively faint in the moral writings of Cicero, who borrowed the materials of his moral declamation chiefly from the stoics; but it is strongest in the writings of Seneca, and in the recorded sentiments of Epictetus and other stoics who lived subsequently to the general diffusion of the Gospel in the Roman empire.

Many have believed that Seneca was secretly a Christian. We know of no sufficient evidence to warrant this belief; but he was certainly a philosopher likely to make himself acquainted with the more remarkable doctrines of Christianity, particularly those of a moral nature; and he was a likely enquirer also to avail himself of sentiments that were favorable to what he considered pure and sublime moral doctrines. This seems, indeed, to have been what his heart was set upon, without caring much whence he had the materials. It has been questioned, indeed, whether he ought to be ranked among the stoic or the eclectic philosophers; and the freedom of judgment which he expressly claims, together with the respect which he pays to philosophers of different sects, clearly prove that he did not implicitly attach himself to the system of Zeno. He speaks, indeed, of *our* Cleanthes and *our* Chrysippus; but he speaks in the same friendly and fraternal style of *our* Demetrius and *our* Epicurus. There can be no doubt, however, from the general strain and spirit of his writings, that he adhered in the main to the system of the stoics. Almost all, indeed, who were eminent for philosophic spirit of that time in the Roman empire were more or less attached to the same system. Most of the poets and historians were evidently well acquainted with it; and some of their loftiest moral sentiments derived their sublimity from its elevating influence.

The only other ancient system of moral philosophy entitled to notice is that of Epicurus; and it is the very antithesis of that of Zeno; for no two systems can well be imagined more dissimilar, or more opposed to one another. They may be regarded as the two opposite extremes in the ancient moral systems; and probably the mutual repulsion or antipathy of their respective founders and partisans was the principal reason of their receding so far from the golden mean, so that the one became impracticable, vain, and visionary, and the other degenerated into the licentiousness of the most debasing sensual gratification that ever had the impudence to plead the sanction of philosophy. But, though epicurism has long been the name of gross pleasure, it does not appear that Epicurus himself was either its slave or its patron. His priciples, however, had a sort of natural tendency to that with which his name has been so long identified.

Epicurus must certainly be considered as atheistical in doctrine; consequently his moral philosophy could have no higher end or relation than the present life and human advantage in this world. In this view it may be considered as identical with the moral philosophy of Hume, who makes utility the standard and measure of virtue. The only difference is in the name given to this standard and measure. Epicurus called it pleasure; Hume called it utility.

The doctrine of Epicurus concerning nature differs from that of the stoics chiefly in these particulars: the latter considered God to be the soul of the world, diffused through universal nature: the former admitted no primary intelligent nature into his system, but held atoms and space to be the first principles of all things, and ascribed every appearance in nature to a fortuitous collision and combination of atoms. When reduced to inextricable difficulties, by the absurdity of his system, he attempted to propound something like theism, or to employ a language not manifestly subversive of the very idea of an intelligent cause of all things; but he was compelled to seek refuge in the common asylum of philosophic ignorance and pretension,—words without meaning.

The science of physics (in which he was certainly in some respects nearer the truth than many of the other ancient philosophers) was, according to the admission of Epicurus, subordinate to that of ethics; and his whole doctrine concerning nature was professedly adapted to rescue men from the dominion of troublesome passions, and to lay the foundation of a tranquil and happy life. The following is a summary of the principles of his moral philosophy, so far as the statements of Cicero, Laertius, and others, can be ascertained and relied on.

The end of living, or the ultimate good, which is to be sought for its own sake, according to the universal opinion of mankind, is happiness; yet men for the most part fail in the pursuit of this object, either because they do not form a right idea of the nature of happiness, or because they do not employ proper means for its attainment. Since it is every man's interest to be happy, through the whole of life, it is the wisdom of every one to employ philosophy in the search of felicity without delay; and there cannot be greater folly than to be always beginning to live. The happiness of man is that state in which he enjoys as much of the good, and suffers as little of the evil, incident to human nature as possible. A wise man, though deprived of sight and hearing, may experience happiness in the enjoyment of what yet remains of good in his possession; and when suffering torture, or laboring under a painful disease, he can mitigate the anguish by patience, and enjoy, under the severest afflictions, the consciousness of his own constancy. But it is impossible that perfect happiness can be possessed without the pleasure which attends exemption from pain and the enjoyment of the good things of life. Pleasure is in its nature good—pain is in its nature evil; therefore the one is to be pursued, the other avoided for its own sake. Pleasure or pain is not only good or evil in itself, but the measure of what is good or evil in every object of desire, or of aversion; for the ultimate reason why we pursue one thing and avoid another is because we expect pleasure from the one and apprehend pain from the other. If we sometimes decline a present pleasure, it is not because we are averse to pleasure itself, or do not make it the ultimate reason of choice and preference, but because we conceive that, in the present instance, it will be necessarily connected with greater pain. In like manner, if we sometimes voluntarily submit to present pain, it is because we judge it to be necessarily connected with, or conducive to, greater pleasure. So that in voluntarily refusing present pleasure, and choosing to endure immediate pain, it is in each case from a sense of interest, or from a desire and preference of pleasure. Though all pleasure, therefore, is essentially good, and all pain is essentially evil, it does not necessarily follow that in every single instance the one ought to be pursued and the other avoided; but reason is to be exercised in distinguishing and comparing the nature, and degrees, and duration of each, that the result may be a wise choice of that which shall appear to have the greatest amount of good.

That pleasure is the chief good appears from the inclination which every animal, from its first birth, discovers to pursue pleasure and avoid pain; and is confirmed by the universal experience of mankind, who are incited to action by no other principle, than the desire of avoiding pain, or of obtaining pleasure. There are two kinds of pleasure; one consisting in a state of rest, in which both body and mind are undisturbed by any kind of pain; the other arising from an agreeable agitation of the senses, producing a corresponding emotion in the mind. It is on the former of these that the enjoyment of life chiefly depends. Happiness may therefore be said to consist in bodily ease, and mental tranquillity. When pleasure is asserted to be the end of living, we are not then to understand that violent kind of delight or joy which arises from the gratification of the senses and passions, but merely that placid state of mind which results from the absence of every cause of pain or uneasiness. Those pleasures which arise from agitation are not to be pursued as in themselves the end of living, but as means of arriving at that stable tranquillity in which true happiness consists. It is the office of reason to confine the pursuit of pleasure within the limits of nature, for the attainment of that happy state in which the body is free from every kind of pain, and the mind from all perturbation. This state must not, however, be conceived to be perfect in proportion as it is inactive and torpid, but in proportion as all the functions of life are quietly and pleasantly performed. A happy life neither resembles a rapid torrent, nor a standing pool, but is like a gentle stream that glides smoothly and silently along.

We will interrupt, for a moment, the statement of the particulars contained in the doctrine of Epicurus, for the sake of presenting a remark or two from Aristippus, the nearest of all the ancient philosophers to Epicurus, though more of a libertine both in theory and practice. Human nature, said Aristippus, is subject to two contrary affections, pain and pleasure. Pleasure is the ultimate object of human pursuit; and it is only in subserviency to this that fame, friendship, and even virtue, are to be desired. This is very explicit. But the sentence we wished to compare with the concluding part of the statement we have already given of the opinions of Epicurus is the following:—Happiness consists not in tranquillity or indolence, but in a pleasing agitation of the mind, or active enjoyment. This is happier than the illustration of happiness by Epicurus when he says it resembles neither the torrent nor the standing pool, but a gentle stream that glides smoothly and silently along: and we may compare with it a passage from Paley's inimitable chapter on happiness in his Moral Philosophy. 'Happiness consists, secondly, in the exercise of our faculties either of body or mind, in the pursuit of some engaging object. It seems that no plenitude of present gratifications can make the possessor happy for a continuance, unless he have something in reserve, something to hope for and look forward to. This I conclude to be the case from comparing the alacrity and spirits of men who are engaged in any pursuit which interests them,

with the dejection and ennui of almost all, who are either born to so much that they want nothing more, or who have used up their satisfactions too soon, and drained the sources of them. Hope, which thus appears to be of so much importance to our happiness, is of two kinds; where there is something to be done towards attaining the object of our hope, and where there is nothing to be done. The first alone is of any real value; the latter being apt to corrupt into impatience, having no power but to sit still and wait, which soon grows tiresome. * * * Those pleasures are most valuable, not which are most exquisite in the fruition, but which are most productive of engagement and activity in the pursuit. A man who is in earnest in his endeavours after the happiness of a future state has in this respect an advantage over all the world; for he has constantly before his eyes an object of supreme importance productive of perpetual engagement and activity, and of which the pursuit (which can be said of no pursuit besides) lasts him to his life's end. Yet even he must have many ends besides the far end; but then they will conduct to that, be subordinate, and in some way or other capable of being referred to that, and derive their satisfaction, or an addition of satisfaction, from that.' Reader, we need not tell you that this is admirable; and we thought that we could not do better than present this beautiful specimen of true philosophy in connexion with the doctrines of Epicurus and Aristippus, that you might see how much modern wisdom excels the boasted wisdom of the ancients, and how much better the moral philosophy of Christians is, than that of the most celebrated heathens. But we must return to Epicurus.

The happy life, which resembles a gentle stream, can be attained only by a prudent care of the body and steady government of the mind. The diseases of the body are to be prevented by temperance, or cured by medicine, or rendered tolerable by impatience. Against the diseases of the mind philosophy provides antidotes; and the means which it employs are the virtues, the origin of which is prudence or wisdom; which instructs men to free their understandings from the mists of prejudice; to exercise temperance and fortitude in the government of themselves; and to practise justice towards others. Though pleasure or happiness, which is the end of living, be superior to virtue, which is the only means to the end, it is the interest of every one to practise all the virtues; for, in a happy life, pleasure can never be separated from virtue.

A prudent man will, to secure his tranquillity, consult his natural disposition in the choice of his plan of life. If he be persuaded that he should be happier in the married state than in celibacy, he ought to marry; but, if he be convinced that matrimony would impede his happiness, he ought to remain single.

Temperance is the discreet regulation of the desires and passions, by which we are enabled to enjoy pleasures without suffering any consequent inconvenience. They who maintain such a constant self-command as never to be enticed, by the prospect of present indulgence, to do that which will be productive of evil, obtain the truest pleasure by declining pleasure. As some desires are natural and necessary; others natural but not necessary; others again neither natural nor necessary, but the offspring of false judgment; it must be the office of temperance to gratify the first class, as far as nature requires; to restrain the second within the bounds of moderation; and, as to the third, resolutely to oppose, and if possible entirely repress them.

Sobriety, as opposed to gluttony and inebriety, is of admirable use in convincing men that nature is satisfied with a little, and enabling them to content themselves with simple and frugal fare. Such a manner of living is conducive to health, renders a man alert and active in all the business of life, gives an exquisite relish to the occasional varieties of a plentiful board, and prepares to meet every reverse of fortune without the dread of want.

Continence is a branch of temperance, which prevents the diseases, infamy, remorse, and punishment, usually incurred by indulgence in illicit attachments. Music and poetry, frequently incentives to licentious pleasures, are to be sparingly and cautiously used.

Gentleness, as opposed to an irascible temper, greatly contributes to tranquillity and happiness, by preserving the mind from perturbation, and by arming it against the assaults of calumny and malice. A wise man, who puts himself under the government of reason, will be able to receive an injury with calmness, and to treat the person who committed it with lenity. He will rank injuries among the casual events of life, and will prudently reflect that he can no more stop the natural current of human passions than he can curb or calm the stormy winds. Disobedient or disorderly members of a family, or of a state, should be chastised or punished without wrath.

Moderation, in the pursuit of honors and riches, is the only security against disappointment and vexation. A wise man, therefore, will prefer the simplicity of a country life or humble station to the magnificence of courts. A wise man will consider future events as wholly uncertain, and will not suffer himself to be elated with confident expectation, anxiously disquieted with doubt or depressed by despair, all which are equally destructive of tranquillity. It will contribute to the enjoyment of life to consider death as its termination, and that it becomes us to retire like satisfied guests, neither regretting the past nor solicitous about the future.

Fortitude, the virtue which enables us to endure pain and banish fear, is of great use in producing tranquillity. Philosophy instructs us to pay homage to the gods, not from hope or fear, but from veneration of their superior nature. It enables us also to conquer the fear of death by teaching us that it is no proper object of terror; since, whilst we live, death is not, and when death comes we live not: therefore, it concerns neither the living nor the dead. The only evils to be apprehended are bodily pain and mental distress. Pain of body it becomes a wise man to bear with firmness; because if slight it may be easily borne, and if intense it cannot last long. Distress of mind commonly

arises not from nature but from opinion; a wise man will therefore arm himself against it by reflecting that the gifts of fortune, the loss or privation of which he may be inclined to deplore, were never his own, but depended on circumstances which he could not command. If, therefore, they happen to leave him, he will endeavour as soon as possible to obliterate the remembrance of them, by occupying his mind in pleasing contemplation, and engaging in agreeable avocations.

Justice respects man as a social being, or as living in society, and is the common bond, without which no society can exist. This virtue, like the rest, derives its value from its tendency to promote the happiness of life. It is not only never injurious to the man who practises it, but nourishes in his mind calm reflections and pleasant hopes; whereas it is impossible that the mind in which injustice dwells should not be full of disquietude. As it is impossible that iniquitous actions should promote the enjoyment of life, since remorse, legal penalties, and public disgrace, must increase its trouble, every one who follows the dictates of sound reason will practise the virtues of justice, equity, and fidelity. The necessity of the mutual exercise of justice in society, to the common enjoyment of the gifts of nature, is the foundation of those laws by which it is prescribed. It is the interest of every individual in a state to conform to the laws of justice; for by abstaining from injuring others, and by rendering them their due, he contributes his part towards the preservation of the social union, on the perpetuity of which his own safety depends. Nor ought any one to think that he is at liberty to violate the rights of his fellow-citizens, provided he can do it securely; for he who has committed an unjust action can never be certain that it will not be discovered; and, however successfully he may conceal it from others, this will avail him little, since he cannot conceal it from himself, or rid himself of the rankling disquiet of being conscious of the fact, and privy to his own disgrace: suspicion and apprehension will haunt his mind. In different communities different laws may be enacted, according to their respective circumstances; for a law good for one community may not be good for another. Whatever is thus prescribed is to be considered as a rule of justice, so long as the society shall judge the observance of it to be for the general good or benefit of the community considered as a whole. But, whenever any rule of social conduct is found by experience to be no longer useful or conducive to the public good, it should be no longer enforced, but repealed.

Nearly allied to justice are the virtues of beneficence, compassion, gratitude, piety, and friendship. He who confers benefits on others procures to himself the satisfaction of seeing the stream of plenty flowing around him from the fountain of his own beneficence; and he enjoys at the same time the pleasure of being esteemed by others. The exercise of gratitude, filial affection, and reverence for the gods, is necessary to avoid the hatred and contempt of all men. Friendships are contracted for the sake of mutual benefit; but, by degrees, they ripen into such disinterested attachment that they are continued without any prospect of advantage, or calculating regard to interest. Between friends there is a kind of league that each will love the other as himself. A true friend will partake of the wants and sorrows of his friend as if they were his own; he will relieve him when in want, visit him in prison, or in the chamber of sickness; nay, situations may occur in which he would not hesitate to die for him. It cannot then be doubted that friendship is one of the most useful means of procuring a secure, tranquil, and happy life.

The above is a summary of the Epicurean system of moral philosophy, taken chiefly from such authorities as Laertius and Cicero, by Brucker, and drawn up, as he himself expresses it, from Brucker by Dr. Enfield, whom we have followed, with little variation of expression, and no essential difference of statement. The inquisitive reader may consult Brucker, Enfield, and Stanley, concerning the history of ancient philosophy and philosophers; and, if he think it worth the time and trouble, he may verify their statements by examining their authorities.

The moral philosophy of Epicurus is for the most part very plausible; it is all very fine; and much of it may be profitable to men, if they can but avail themselves of its philosophic wisdom. The reader must have perceived from it, too, how little there is new in these matters under the sun; and that most of the fine things which have been said and sung by the Cicero's and Addison's, and Horace's and Pope's, were tritical sentiments in the world, long before they were born. The same remark applies to many of the modern moral philosophers, who have borrowed and retailed the opinions of the ancients, in a manner which would induce common readers to consider them as new and fresh from the spring of original invention or discovery. Considered as a whole, the system has the merit of much simplicity, intelligibleness, and congruity. There is indeed some mere verbiage and paralogism about the different parts, but not so much as is usually to be found in moral systems, and the machinery is altogether well adjusted. We can almost always tell what this philosopher is about. We see him lay his foundation, and build upon it the whole superstructure of his ethics, such as they are. He does nothing in the dark, or up among the clouds. All is on terra firma, and in broad day-light. In this respect Epicurus is a perfect contrast to most of the ancient philosophers, such as Plato and Aristotle, and particularly Zeno, to whom, in moral philosophy, he stands most decidedly opposed. We need not wonder therefore that, notwithstanding all the abuse heaped upon his memory, he should have been the favorite with all the better reasoners of modern times, such as Bacon, Gassendi, Hobbes, Newton, Locke, not to mention many others.

It is almost wholly unnecessary to attempt any analysis of the moral system of Epicurus; for it is so plain and simple as to require no exposition. We shall have occasion, however, to refer to it when we come to examine some of the modern theories of morals; for it may be considered as essentially identical with the doctrine of Hobbes, of Mandeville, and of Hume.

The pleasure or happiness of Epicurus is the greatest possible amount of enjoyment in this life. This happiness is the chief good; the only object of man's supreme regard. It is the standard and measure of virtue; or rather virtue is nothing but practical prudence in the pursuit of the greatest possible quantity of enjoyment. Not only temperance and fortitude, but justice, beneficence, compassion, gratitude, piety, and friendship, are virtues merely because they are useful to the individual, or subservient to his happiness. All is resolvable into self-love, or rather self-interest. Virtue is nothing but driving the best bargain we can in the world. It is the wisest speculation we can enter upon and prosecute, to realise a large profit. It is not only the profitable pursuit, as piety and virtue have been sometimes quaintly designated, it is the pursuit of profit. According to Epicurus, self-love, or the desire of happiness, is the sole spring of moral action; self-interest, or the greatest amount of attainable happiness, is the goal; and virtue, wisdom, or prudence (for there is no real difference in this case between the one and the other), is the means to that end. Vice is the folly of one who makes himself poor when he might become rich; virtue is the wisdom of one who, instead of beggaring his enjoyment, enriches it with the greatest possible accumulation of wealth and possession.

It is not necessary to say more. We cannot wonder that the doctrine of Epicurus immediately degenerated into the vilest licentiousness, however harmless it might be in the management of such an intellectual man as its author. It is essentially a doctrine after the heart of every selfish being; and selfish human beings are, for the most part, sensual. But if sensuality had been no necessary consequence of the doctrine, nay, if it had been found rather to diminish than to increase the sensual tendency in its disciples, it would not have been for that worthy of all acceptation, even on the ground of social utility. Human society has been always bad enough; but it would be infinitely worse, if it were from the highest to the lowest, and from the oldest to the youngest, thoroughly principled and influenced with the moral philosophy of Epicurus. What could we expect of a set of beings, not only selfish, but philosophising the selfish principle into such dignity and importance as to constitute it the object of supreme regard; the standard and measure of all excellence? In this view we need not wonder that the lovers of expiring liberty in the Roman empire held the Epicurean system in abhorrence, whilst they cordially embraced the nobler system of Zeno with all its faults.

We might proceed at once from the moral philosophy of Epicurus to that of the moderns most akin to his, as contained in the writings of Hobbes, Mandeville, and Hume. But, for the sake of presenting a fuller historical view, some intermediate notice may be taken of those who went before them after the revival of learning. In the section of his work which treats of Modern Attempts to improve Moral and Political Philosophy, Dr. Enfield says, after Brucker (who was not remarkable for critical sagacity), 'Scarcely had philosophy emerged out of the darkness of barbarism, when learned men, tired of treading for ever the barren path of scholastic controversy, began to visit the flowery and fertile fields of moral philosophy. Several of those writers, to whom the world is indebted for the revival of polite learning, wrote moral treatises after the manner of the ancients. Among these, the first of eminence is Montaigne, whose essays, consisting of miscellaneous observations, chiefly moral, are written with great ingenuity and vivacity. Many of his reflections, it must be owned, have a tendency to encourage scepticism; and sometimes he indulges a luxuriance of fancy, and freedom of language, which grossly violate the rules of decorum; but he must not be wholly excluded from the class of useful moralists.'

We have intimated that we do not consider Brucker a very sound critic. That the essays of Montaigne possess much ingenuity and vivacity is freely admitted; but that he is a useful moralist is somewhat doubtful. According to Mr. Dugald Stewart, both he and Rochefoucault have had a very pernicious influence on the good people of France. Certain it is, however, that Montaigne was the first author of eminence among the moderns who wrote about morals.

Brucker makes honorable mention of the moral philosophy of Placcius, a native of Lubeck. 'This writer,' he says, 'was, if not the first, certainly among the first, who distinguished the science of ethics from that of jurisprudence, and attempted to assign each its proper limits. But these subjects were afterwards more fully and scientifically handled by Grotius and Puffendorff, whose eminent services, in this and other branches of science, entitle them to particular notice.'

The reputation of Grotius and Puffendorff has been for some time very much on the decline. The former is however considered a sort of father of moral philosophy in modern times. 'One celebrated work alone,' says Mr. Stewart, 'the treatise of Grotius De Jure Belli et Pacis,' first printed in 1625, 'arrests our attention among the crowd of useless and forgotten volumes, which were then issuing from the presses of Holland, Germany, and Italy. The influence of this treatise, in giving a new direction to the studies of the learned, was remarkable, and continued long to operate with undiminished effect. Notwithstanding the just neglect into which Grotius and his successors have lately fallen, it will be found, on a close examination, that they form an important link in the history of modern literature. It was from their school that most of our best writers on ethics have proceeded, and many of our most original enquirers into the human mind; and it is to the same school that we are chiefly indebted for the modern science of political economy.

Mr. Stewart is evidently not a little charmed with the flowers and fruits growing out of Grotius and Puffendorff, though he is constrained to admit the stocks or stems to be almost worthless. 'In perusing,' he remarks, 'their systems, it is impossible not to feel a very painful dissatisfaction, from the difficulty of ascertaining the precise object aimed at by them. So vague and

indeterminate is the general scope of their researches, that not only are different views of the same subject taken by different writers, but even by the same writer in different parts of his work; a circumstance which of itself sufficiently accounts for the slender additions they have made to the stock of useful knowledge; and which is the real source of that chaos of heterogeneous discussions through which the reader is perpetually forced to fight his way.' This is almost as severe, upon the far famed Grotius and Puffendorff, as the remarks of Jeremy Bentham in his Introduction to the Principles of Morals and Legislation. 'Of what stamp,' he asks, 'are the works of Grotius, Puffendorff, and Burlemaqui? Are they political or ethical, historical or juridical, expository or censorial. Sometimes one thing, sometimes another: they seem hardly to have settled the matter with themselves.'

It is both amusing and instructive to place, in contrast with the above, the eulogial and almost adoring strains on Grotius, of the moral professors in the Scottish universities 100 years ago. Take as a specimen the following from the pen of Mr. Carmichael, professor of moral philosophy in the university of Glasgow, and predecessor to Dr. Hutcheson and Dr. Adam Smith: 'No person liberally educated can be ignorant, that, within the recollection of ourselves and of our fathers', philosophy has advanced to a state of progressive improvement hitherto unexampled. Nor does this remark apply solely to natural philosophy: the other branches of philosophy have been prosecuted during the last century with no less success; and none of them in a more remarkable degree than the science of morals. This science so much esteemed, and so assiduously cultivated by the sages of antiquity, lay, for a length of time, in common with all the other useful arts, buried in the rubbish of the dark ages, till (soon after the commencement of the seventeenth century) the incomparable treatise of Grotius, De Jure Belli et Pacis, restored to more than its ancient splendor that part of it which defines the relative duties. Since that period the most learned and polite scholars of Europe, as if suddenly roused by the sound of a trumpet (quasi classico dato) have vied with each other in the prosecution of this study,—so strongly recommended to their attention, not merely by its novelty, but by the importance of its conclusions, and the dignity of its object.'

This will match any of the eulogies of professor Stewart on the philosophy of mind, so recently in its turn the wonder of the day, at least in the Scottish universities; and which drove the lucubrations of Grotius and Puffendorff, and Carmichael and Hutcheson, to the back settlements of the moral hall. Some minds are of a most happy conformation for eulogial persuasion. We can hardly help envying their gracious assurance, and gratulatory delight, in magnifying the verity and importance of their favorite pursuit; even if the object of it be some obscure phantom, as Bentham designates the law of nature. But let us hear a little about the modern father of moral philosophy, from the elegant mind of Mr. Stewart.

'Among the different views which have been formed of natural jurisprudence, one of the most common supposes its object to be, to lay down those rules of justice which would be binding on men living in a social state, without any positive institutions; or (as frequently called by writers on this subject) living together in a state of nature. This idea seems to have been uppermost in the mind of Grotius, in various parts of his treatise.' It was only in such a mind that such an idea could be either uppermost or undermost.

'To this speculation about the state of nature Grotius was manifestly led by his laudable anxiety to counteract the attempts then recently made to undermine the foundations of morality. That moral distinctions are created entirely by the arbitrary and revealed will of God, had, before his time, been zealously maintained by some theologians even of the reformed church; while, among the political theorists of the same period, it was not unusual to refer these distinctions (as was afterwards done by Hobbes) to the positive institutions of the civil magistrate. In opposition to both, it was contended by Grotius, that there is a natural law coeval with the human constitution, from which positive institutions derive all their force; a truth which, how obvious and critical soever it may now appear, was so opposite in its spirit to the illiberal systems taught in the monkish establishments, that he thought it necessary to exhaust in its support all his stores of ancient learning. The older writers on jurisprudence must, I think, be allowed to have had great merit in dwelling so much on this fundamental principle; a principle which renders man a law to himself, and which, if once admitted, reduces the metaphysical question concerning the nature of the moral faculty to an object merely of speculative curiosity. To this faculty the ancients frequently gave the name of reason; as in that noted passage of Cicero, where he observes that 'right reason is itself a law, congenial to the feelings of nature; diffused among all men; uniform; eternal; calling us imperiously to our duty, and peremptorily prohibiting every violation of it. Nor does it speak one language at Rome, and another at Athens, varying from place to place, or time to time; but it addresses itself to all nations and to all ages, deriving its authority from the common sovereign of the universe, and carrying home its sanctions to every breast, by the inevitable punishments which it inflicts on transgressors.'

We know not that we could have had any thing better than this for an opening into what Brucker calls the flowery and fertile fields of our modern moral philosophy; though they are such flowers and fruits as grow upon thorns and briers and thistles, and therefore we are not over fond of them. But, as Paley justly remarks, almost any kind of employment is better than none, and we shall try to make our path through these thorny mazes of controversy as pleasant as possible to such as are willing to accompany us. It is not wholly useless to know something about the different philosophies of the world; indeed some competent acquaintance with them is necessary in self-defence. It is the part of a reasonable being to find out whether they have

any thing good about them; and still more to see that they do him no mental or bodily harm. These points we endeavour to keep steadily in view, and we have some observations connected with them to offer upon the passage just quoted from Mr. Stewart's Dissertation in the supplement to the Encyclopædia Britannica. We would have willingly indeed taken our final leave of him in the article METAPHYSICS, but he has unexpectedly come in our way once more in an ethical shape. And here, though we should be better pleased to praise, we are again constrained to blame him; for in the passage just quoted there is not a little artful management of eulogistic and dyslogistic phraseology, and of dexterous assumption to accomplish a purpose. The term arbitrary for instance, which he connects with the revealed will of God, is obviously dyslogistic, that is invidious, or rather odious. No sound theologian ever spoke of the revealed will of God as arbitrary. The published will—the edicts of a Russian autocrat are often arbitrary; but no pious mind would liken the will of the Supreme Being to that of an earthly despot. Mr. Stewart speaks of 'a natural law coeval with the human constitution, from which positive institutions derive all their force; a truth,' he adds, 'however obvious and tritical it may now appear.' This is a remarkable specimen of that dexterous assumption in which he always excels. He says moreover that this obvious and tritical truth 'was opposite in its spirit to the illiberal systems taught in the monkish establishments.' Of course, what was not only obviously true, but also opposite in its spirit to illiberal systems and monkish establishments, must have every possible kind of excellence and recommendation; but what had monkish establishments to do with the question? They are not in the record or among the premises. The parties to be tried in the cause of moral distinctions were on the one hand theologians of the reformed church, who would resolve them into the revealed will of God; and, on the other, political theorists, who would resolve them into the positive institutions of the civil magistrate. What business had monks and their illiberal systems among theologians of the reformed church and political theorists? 'The older writers on jurisprudence,' Mr. Stewart tells us, 'had great merit in dwelling so much on this fundamental principle, which renders man a law to himself.' But, if they had so much merit in dwelling on it, what would their merits have been had they first established it? Was not the latter first in the order of nature and reason? If the one was well done, surely the other ought not to have been left undone. As to the dexterous quotation from Scripture, it is sufficient to remark, that Satan showed quite as much dexterity in that way long ago. He too could quote Scripture when he thought he could make it suit his purpose, though his attempts did not prove very successful. 'The principle on which Grotius and Puffendorf so meritoriously dwelled so much, Mr. Stewart adds, 'if it be once admitted, reduces the metaphysical question concerning the nature of the moral faculty to an object merely of speculative curiosity.' This is a sort of regular manœuvre with our intellectual and moral philosopher, when he has to effect his retreat from some invincible difficulty. However important the question may be, if it cannot be fairly met, and logically disposed of, it is slurred over, or got rid of, as an object merely of speculative curiosity; which always puts us in mind of the fox and the grapes in the fable. When he could not reach them, he scorned to have them, for they were sour worthless things, not worth taking.

We might as well call the foundation on which the whole superstructure must rest an object merely of speculative curiosity, as make the same affirmation concerning the nature of the moral faculty. The question of its nature is but another form of words for the question of its entity, and, without first of all ascertaining what it is, we are attempting, in raising a structure of ethics, to build without a foundation.

We, who call ourselves moral philosophers, may all agree to admit or assume that there is a moral principle or faculty coeval with the human constitution, even though our different theories concerning it be mutually destructive of one another, and our tongues as divided as the builders of Babel; we may moreover vie with one another in quoting from Cicero splendid declamations in praise of the unknown principle, on which we are professedly at work to raise a moral tower that shall reach the heavens; but the question will after all occur, to every one who is resolved not to take such a matter for granted, what is it? I demand some description of it. If you cannot agree among yourselves in what it consists, what evidence have I that it exists at all?

If we seek satisfaction in this important particular from those of the same persuasion with Mr. Stewart, though better reasoners, we shall not find it. Dr. Smith says, in his Theory of Moral Sentiments, part III. chap. 5, 'Upon whatever we suppose that our moral faculties are founded, whether upon a certain modification of reason, upon an original instinct, called a moral sense, or upon some other principle of our nature, it cannot be doubted that they were given us for the direction of our conduct in this life. They carry along with them the most evident badges of this authority, which denote that they were set up within us to be the supreme arbiters of all our actions, to superintend all our senses, passions, and appetites, and to judge how far each of them was to be either indulged or restrained. The rules, therefore, which they prescribe are to be regarded as the commands and laws of the deity, promulgated by those vicegerents which he has set up within us.'

This is quite as affirmative, almost as declamatory, and altogether as unsatisfactory, as the noted and ever-to-be-quoted passage of Cicero. Indeed there is so much appearance of striving and straining about it, that we cannot divest ourselves of the suspicion that it was wrought up as a sort of shield against the charge of virtual atheism, in resolving morality into sympathy. This is the principle of our nature, according to Dr. Smith, which is the origin of our moral faculties; or the local habitation of the vice-

gerents of the Deity, set up within us to promulgate his laws, to be the supreme arbiters of all our actions, and to wear the badges of authority, and superintend and judge all our senses, passions, and appetites. But, according to lord Shaftesbury and Dr. Hutcheson, it is instinct, or a particular sense which they called the moral sense, that is the origin of all the moral faculties Dr. Smith speaks of, and of all the moral distinctions of any description which can possibly exist in connexion wtth human nature. Professors Stewart and Brown do not agree with Dr. Smith in making sympathy the origin of moral distinctions, or the basis of their moral philosophy; nor do they exactly say after Dr. Hutcheson and lord Shaftesbury, in pronouncing for moral instinct as the origin and basis of morality; but it is difficult to say precisely what they would be at; for they seem to have been unwilling to commit themselves by explicit statements. If, however, any thing can be made of their statements, they are essentially the same as that of Hutcheson.

The vagueness of Mr. Stewart has long ceased to be a matter of wonder with us; but we were not a little disappointed and mortified when we came to the ethical part of Dr. Brown's lectures. No where is he so unsatisfactory, and particularly as to the origin of moral distinctions. But the reader shall have an opportunity of judging for himself. 'In surveying,' says Dr. Brown, Lecture 81, 'either our own conduct or the conduct of others, we do not regard the actions that come under our review as merely useful or hurtful, in the same manner as we regard inanimate things, that are independent of our will. There is a peculiar set of emotions to which the actions of voluntary agents in certain circumstances give rise that are the source of our moral sentiments, or rather which are themselves our moral sentiments, when considered in reference to the actions that excite them. To these emotions we give the name of moral approbation or moral disapprobation, feelings that are of various degrees of vividness as the actions which we consider are various. The single principle upon which these principles depend is the source of all our moral notions; one feeling of approbation, as variously regarded in time, being all which is truly meant when we speak of moral obligation, virtue, and merit, that in the works of ethical writers are commonly treated as objects of distinct enquiry; and that, in consequence of the distinct enquiries to which they have led, and the vain attempts to discover essential differences where none truly exist, have occasioned so much confusion of thought and verbal tautology as to throw a sort of darkness on morality itself.

'Instead, then, of enquiring first, what it is which constitutes virtue, and then what it is which constitutes merit, and then what it is which constitutes our moral obligation to do what we have seen to be right and meritorious, one enquiry alone is necessary,—what actions excite in us, when contemplated, a certain vivid feeling? since this approving sentiment alone, in its various references, is all which we seek in these different verbal enquiries. If a particular action be meditated by us, and we feel, on considering it, that it is one of those which, if performed by us, will be followed in our own mind by the painful feeling of self reproach, and in the minds of others by similar disapprobation; if a different action be meditated by us, and we feel that our performance of it would be followed in our own minds, and in the minds of others, by an opposite emotion of approbation, this view of the moral emotions that are consequences of the actions is that which I consider as forming what is termed moral obligation, the moral inducement which we feel to the performance of certain actions, or to abstinence from certain other actions. We are virtuous if we act in conformity with this view of moral obligation; we are vicious if we act in opposition to it: virtuous and vicious meaning nothing more than the intentional performance of actions that excite, when contemplated, the moral emotions. Our action, in the one case, we term morally right, in the other case morally wrong; right and wrong, like virtue and vice, being only words that express briefly the actions which are attended with the feeling of moral approbation in the one case, of moral disapprobation in the other case.

'When we speak of the merit of any one, or of his demerit, we do not suppose any thing to be added to the virtue or vice; we only express, in other words, the fact that he has performed the action which it was virtuous or vicious to perform; the action which, as contemplated by us, excites our approval, or the emotion that is opposite to that of approval. Moral obligation, virtue, vice, right, wrong, merit, demerit, and whatever other words may be synonymous with these, all denote then, as you perceive, relations to one simple feeling of the mind, the distinctive sentiment of moral approbation or disapprobation, which arises on the contemplation of certain actions; and which seems itself to be various, only because the action of which we speak or think, meditated, willed, or already performed, is variously regarded by us, in time, as future, present, past. There are, in short, certain actions which cannot be contemplated without the instant feeling of approval, and which may therefore be denominated morally right. To feel this character of approvableness in an action which we have not yet performed, and are only meditating on as future, is to feel the moral obligation or moral inducement to perform it; when we think of the action in the moment of volition, we term the voluntary performance of it virtue; when we think of the action, as already performed, we denominate it merit; in all which cases, if we analyse our moral sentiment, we cannot fail to discern that it is one constant feeling of moral approval, with which we have been impressed, that is varied only by the difference of the time at which we regard the action as future, immediate, or past.'

This is the concisest statement of the whole matter we could select; and it is professedly a brief recapitulation, or, as the author terms it, 'a short retrospect of his original speculation;' yet it is wondrous long,—a mighty maze of words without any substantial meaning,—much ado about nothing,—or rather a wonderful effort of striving and straining to make a shadow into a

substance, that he might escape the conscious and manifest folly of attempting to build an ethical structure on nothing, or without a foundation. Whilst at the drudgery of transcribing this wordy retrospect of the author's original speculation, we were longing most eagerly for a nice morsel of Dr. Smith's delightful philosophic romance, The Theory of Moral Sentiments. Even Dr. Hutcheson's moral philosophy, though somewhat light and frothy, would be choice syllabub in comparison with such a bundle of dry verbalities about the origin of moral distinctions. But we must suffer Dr. Brown to state the difference between his notion concerning the origin of moral distinctions and that of Dr. Hutcheson. We must, however, abbreviate his statement, both for our own sake and that of the reader.

'In tracing,' says the moral lecturer, 'to an original susceptibility of the mind our moral feelings, we may be considered as arriving at a principle like that which Dr. Hutcheson, after lord Shaftesbury, has distinguished by the name of the moral sense. In our moral feelings, however, I discover no peculiar analogy to perceptions or sensations, in the philosophic meaning of these terms; and the phrase 'moral sense' has had a very unfortunate influence on the controversy as to the original moral differences of actions from the false analogies which it cannot fail to suggest. Were I to speak of a moral sense at present, you would understand me as speaking metaphorically of the original principle of our nature on which the moral emotions depend. But by Hutcheson it was asserted to be truly and properly a sense,—as much a sense as any of those which are the source of our direct external perceptions; and the scepticism, which would have been just with respect to such an organ of exclusive moral feeling, has been unfortunately extended to the certain moral principle itself, as an original principle of our nature. Of the impropriety of ascribing the moral feelings to a sense, I am fully aware then, and the place which I have assigned to them among the moral phenomena, is, therefore, very different.'

The author's enlightened friend Mr. Erskine, in a letter written from Calcutta, justly observes that he can perceive little or no real difference between Brown's statement and that of Hutcheson, though he was rather inclined to the explanation of Mr. Stewart. The difference is this: Hutcheson calls the assumed original principle, a sense; Brown calls it a susceptibility: and surely to call an original principle or tendency a susceptibility is quite as great a violation of established phraseology as to call it a sense. There is, however, a wonderful conveniency and advantage to the theorist in the adoption of such a phrase as moral susceptibility of our nature; for who can deny it? Whatever morality consist in, or in whatever manner we come by the notion and even feeling of it, there must be an original susceptibility of it; and, if this susceptibility be what is meant by original principle of our constitution, or by the right reason of Cicero, we can, if not applaud, at least admit all his assertions about it to be something more than mere empty declamation. We shall give one other quotation from Dr. Brown in this connexion, as it shows that he considered his notion almost if not altogether identical with that of Hutcheson, and as it leads to a consideration of what seems most objectionable about it.

'But though Dr. Hutcheson may have erred in not analysing with sufficient minuteness the moral ideas of which he speaks, and in giving the name of a moral sense to the susceptibility of a mere emotion akin to our other emotions, this error is of little consequence as to the moral distinctions themselves. Whether the feeling that attends the moral contemplation of certain actions admit of being more justly classed with our sensations, or perceptions, or with our emotions, there is still a susceptibility of this feeling or set of feelings, original in the mind, and as essential to its very nature as any other of the principles or functions, which we regard as universally belonging to our mental constitution; as truly essential to the mind, indeed, as any of those senses among which Dr. Hutcheson would fix its place. The sceptical conclusions which some writers have conceived to be deducible from the doctrine of a moral sense, might be considered equally deducible from the doctrine of moral emotions for which I have contended; since the emotions may be regarded as almost the same feelings under a different name. You will find the objection stated and illustrated at great length in Dr. Price's elaborate, but very tedious, and not very clear, Review of the principal Questions of Morals. It is more briefly stated by Mr. Stewart in his outlines.

'From the hypothesis of a moral sense,' says Mr. Stewart, 'various sceptical conclusions have been deduced by later writers. The words right and wrong, it has been alleged, signify nothing in the objects themselves to which they are applied, any more than the words sweet and bitter, pleasant and painful; but only certain effects in the mind of the spectator. As it is improper, therefore, to say of an object of taste that it is sweet, or of heat that it is in the fire, so it is equally improper to say of actions that they are right or wrong. It is absurd to speak of morality as a thing independent and unchangeable; inasmuch as it arises from an arbitrary relation between our constitution and particular objects. To avoid these supposed consequences of Dr. Hutcheson's philosophy, an attempt has been made by some later writers, in particular by Dr. Price, to review the doctrines of Cudworth, and to prove that moral distinctions, being perceived by reason or the understanding, are equally immutable with all other kinds of truth.'

The following is the manner in which Dr. Brown meets the objection; and, whether successful or not, it displays his usual acuteness and mastery of analysis. What he says of virtue and vice not being absolute or abstract entities, but merely relations, is particularly worthy of attention. Most of the confusion and self-contradiction, to be met with in moral statements and reasonings, have arisen from the neglect of the very obvious truth that virtue and vice are not absolute entities which have a separate existence of themselves, like the objects presented to our senses.

'That right and wrong signify nothing in the objects themselves is indeed most true: they are words expressive only of relation, and relations are not existing parts of objects or things, to be added to them or taken from them. There is no right nor wrong, virtue nor vice, merit nor demerit, existing independently of the agents who are virtuous or vicious; and, in like manner, if there had been no moral emotions to arise on the contemplation of certain actions, there would have been no virtue, vice, merit, demerit, which express only relations to these emotions. But, though there be no right or wrong in the abstract, the virtuous agent is not the same as the vicious agent: I do not say merely to those whom he benefits or injures, but to the most remote individual who contemplates that intentional production of benefit or injury. All are affected, on the contemplation of these, with different emotions; and it is only by the difference of these emotions that these actions are recognised as morally different. We feel that it will be impossible, while the constitution of nature remains as it is, that the lover and intentional producer of misery as misery, should ever be viewed with tender esteem; or that he, whose only ambition has been to diffuse happiness more widely than it could have flowed without his aid, should be regarded on that account with the detestation which we now feel for the murderer of a single helpless individual, or for the oppressor of as many sufferers as a nation can contain in its whole wide orb of calamity; and a distinction which is to exist while God himself exists, or at least which has been, and as we cannot but believe will be, coeval with the race of man, cannot surely be regarded as very precarious. It is not to moral distinctions only that this objection, if it had any force, would be applicable. Equality, proportion, signify nothing in the objects themselves to which they are applied, more than vice or virtue. They are as truly mere relations as the relations of morality. Though the three sides of a right angled triangle exist in the triangle itself, and constitute it what it is, what we term the properties of such a triangle do not exist in it, but are results of a peculiar capacity of the comparing mind. It is man, or some thinking being like man, whose comparison gives birth to the very feeling that is termed by us a discovery of the equality of the squares of one of the sides to the squares of the other two, that is to say (for the discovery of the truth is nothing more) it is man, who, contemplating such a triangle, is impressed with this relation, and who feels afterwards that it would be impossible for him to contemplate it without such an impression. If this feeling of the relation never had arisen, and never were to arise in any mind, though the squares themselves might still exist as separate figures, their equality would be nothing, exactly as justice and injustice would be nothing, where no relation of moral emotion had ever been felt; for equality, like justice, is a relation, not a thing; and, if strictly analysed, exists only, and can exist only, in the mind, which on the contemplation of certain objects is impressed with certain feelings of relation; in the same manner as right and wrong, virtue and vice, relate to emotions in some mind that has contemplated certain actions, without whose contemplations of the actions there could be no right nor wrong, virtue nor vice, as there could be no other relation without a mind that contemplates the objects said to be related.

'If, then, it be not necessary, in the case of a science which we regard as the surest of all sciences, that the proportions of figures should be any thing inherent in the figures, why should it be required, before we put confidence in morality, that right and wrong should be something existing in the individual agents? It is not easy, indeed, to understand what is meant by such an inherence as is required in this postulate; or what other relations actions can be supposed to have as right or wrong than to the minds which are impressed by them with certain feelings. Of this, at least, we may be sure, that if any doubt can truly exist as to relations which we and all mankind have felt, since the creation of the very race of man, the reference which Dr. Price (and he might have joined Cudworth, Clarke, and Wollaston) would make of our moral sentiments to reason, would leave the difficulty and the doubt exactly where they were before; since reason is but a principle of our mental frame, like the principle which is the source of moral emotion, and has no peculiar claim to remain unaltered in the supposed general alteration of our mental constitution. What we term reason is only a brief expression of a number of separate feelings of relation, of which the mind might or might not have been formed to be susceptible. If the mind of man remain as it is, our moral feelings, in relation to their particular objects, are as stable as our feelings of any other class; and, if the mind of man be altered in all its functions, it is absurd for us to make distinctions of classes of feelings in the general dissolution of every thing which we at present know: it is absurd even to guess at the nature of a state which arises from a change that is imaginary only, and that by our very supposition is to render us essentially different in every respect from the state with which we are at present acquainted. It is a very powerless scepticism, indeed, which begins by supposing a total change of our nature. We might perhaps have been formed to admire only the cruel, and to hate only the benevolent; as, in spite of an axiom that now seems to us self-evident, we might all have been formed to think with the lunatic, that the cell in which he is confined is larger than the whole earth of which it is a part.'

The above bears the striking impress of a master mind. If Cudworth and Price, Clarke and Wollaston, with all their ostentatious erudition, and mathematical science, had understood the nature of reason, of relation, and of proportion half as well as Dr. Brown, they would never have furnished us with so much literary lumber, for dark dusty corners of neglected shelves, visited only by moths and bookworms. We cannot do better perhaps than give at once, in connexion with the above, a few abbreviated selections from Dr. Brown's Lectures, which we had intended to insert somewhere on account of their instructive importance; and

it is but justice to his memory, to prevent, if possible, misapprehensions of his statements concerning the nature of right and wrong, virtue and vice, as not being absolute entities but mere relations.

'Much of the perplexity which has attended enquiries into the theory of morals has arisen from distinctions which seemed to be the result of nice and accurate analysis, but in which the analysis was merely verbal and therefore not real. What is it that constitutes an action virtuous? What is it which constitutes the moral obligation to perform certain actions? What is it which constitutes the merit of him who performs certain actions? These have been considered as questions essentially distinct; and because philosophers have been perplexed in attempting to give different answers to all these questions, and have still thought that different answers were necessary, they have wondered at difficulties which themselves created; and, struggling to discover what could not be discovered, have often been entangled in scepticism themselves, or have stated so many unmeaning distinctions as to furnish occasion of ridicule and scepticism to others. One simple proposition has been converted into an endless circle of propositions, each proving and proved by that which precedes or follows it; though in fact nothing is proved but the confusion of the writer entangled in a thicket of verbalities. Why has any one merit in a particular action? Because he has done an action that was virtuous. And why was it virtuous? Because it was an action which it was his duty in such circumstances to do. And why was it his duty in such circumstances? Because there was a moral obligation to perform it. And why do we say that there was a moral obligation to perform it? Because if he had not performed it he would have violated his duty and been unworthy of our approbation. In this circle we might whirl round for ever, with the semblance of reasoning indeed, but only with the semblance; our answers, though verbally different, being merely the same proposition repeated in different forms, and requiring therefore in all its forms to be proved or not requiring proof in any of them. To have merit, to be virtuous, to have done our duty, to have acted in conformity with obligation—all mean the same thing, and have reference to one feeling of the mind, that feeling of approbation which attends the consideration of virtuous actions.

'Virtue is nothing in itself, but only a general name for certain actions, which agree in exciting, when contemplated, a certain emotion of the mind. There is philosophically considered, and in strict accuracy of speech, no virtue, no vice, but there are virtuous agents and vicious agents. In thinking of virtue we are not to look for anything self-excited like the universal essences of the schools, and eternal like the Platonic ideas; but a felt relation and nothing more. We are to consider only agents and the emotions which these agents excite; and all that we mean by the moral differences of actions is their tendency to excite one emotion rather than another.'

We have seen then that as Dr. Hutcheson's theory of morals rests upon the assumption of a kind of moral instinct, or moral sense, that of Dr. Brown differs in nothing from it except that instead of instinct or sense he prefers an original or innate kind of emotion or susceptibility of our nature. Dr. Smith again pronounces for sympathy as the origin and foundation of moral distinctions; the notion of which was probably suggested to his mind by the following passage of Hutcheson's Moral Philosophy, Book 1. chap. 9. 'There are other still more noble senses and more useful: such is that sympathy or fellow-feeling, by which the state and fortunes of others affect us exceedingly, so that by the very power of nature (the Dr. could jump into a conclusion or first principle) previous to any reasoning or meditation, we rejoice in the prosperity of others (of course antipathy is an original sense too, so that, by the very power of nature, some men at least rejoice in the adversity of others), and sorrow with them in their misfortunes; as we are disposed to mirth when we see others cheerful, and to weep with those that weep, without any consideration of our own interests. Hence it is that scarce any man can think himself sufficiently happy, though he has the fullest supplies of all things requisite for his own use or pleasure; he must also have some tolerable stores for such as are dear to him; since their misery or distress will necessarily disturb his own happiness. By means of this sympathy, and of some disinterested affections, it happens, as by a sort of contagion or infection, that all our pleasures, even those of the lowest kind, are strangely increased by their being shared with others. There is scarce any cheerful or joyful commotion of mind which does not naturally require to be diffused and communicated. What is agreeable, pleasant, witty, or jocose, naturally bursts forth, and breaks out among others, and must be imparted. Nor on the other hand is there anything more uneasy or grievous to a man than to behold the distressing toils, pains, griefs, or misery of others, especially of such as have deserved a better fate.'

We rather think this notable passage is to be considered as the germ of the theory of sympathy. The following remarks upon it by Dr. Brown are so much to the purpose that we shall present them instead of any criticism of our own:—'Dr. Smith professes to explain, by the intervention of sympathy, feelings which must have existed previously to the sympathy itself. It is on a mere assumption, or rather on an inconsistency still more illogical than a mere assumption, that the great doctrine of his system is founded. That his own penetrating mind should not have discovered the inconsistencies involved in his theory, and that these should not have obviously appeared to many of his philosophic readers and admirers, may in part have arisen, like many other seeming wonders of the kind, from the ambiguities of language. The meaning of the word sympathy is not sufficiently definite to present always one clear notion to the mind. It is generally employed to signify a mere participation of the feelings of others; but it is frequently used also as significant of approbation. To say that we sympathise with any one, in what he has felt or done, means often that

we thoroughly approve of his feelings; and, in consequence of this occasional use of the term, the theory which would identify all our moral approbation with sympathy was doubtless admitted more readily both by its author and his followers; since what was not true of sympathy, in its strict philosophic sense, was yet true of it in its mixed popular sense. If the word had been always strictly confined to its two accurate meanings, it seems as impossible that any one should have thought of ascribing moral sentiments to sympathy as of ascribing to an echo the original utterance of the voices which it returns to our ear, or the production of the colors presented to our eye in the mirror, to the mirror itself which has only received and reflected them.

'Of all the principles of our mixed nature sympathy is perhaps one of the most irregular, varying not in different individuals only, but even in the same individual in different hours or different minutes of the same day, and varying not with slight differences, but with differences of promptness and liveliness, with which only feelings the most capricious could be commensurable. If our virtue and vice, therefore, or our views of actions as right and wrong, varied with our ever varying sympathy, we might be virtuous at morning, vicious at noon, and virtuous again at night, without any change in the circumstances of our action, except in our greater or less tendency to vividness of sympathy, or to the expectation of more or less vivid sympathies in others.'

Sympathy is manifestly as unsuitable a foundation of morals as a shifting sand bank would be for the superstructure of a temple; we only wish that the foundation which Dr. Brown himself attempted to lay were far more firm and certain. If the reader has never seen Smith's Theory of Moral Sentiments, he must not suppose that the book, though wrong in its first principle, is wholly absurd or worthless. It has much real excellence, and we know of few books half so charming. We have spoken of it as a delightful philosophic romance, and we do not envy those their taste who would not prefer it to any romance or novel ever yet published. It is full of profound reflections which seem almost too obvious to merit attention merely because they are presented in an easy playful manner. Dr. Smith's genius nowhere appears to such advantage as in the Theory of Moral Sentiments. Dr. Brown pronounces upon it one of his happiest eulogies, when he says, 'It is valuable, not for the leading doctrine of which we have seen the futility, but for the minor theories which are adduced in illustration of it; for the refined analysis which it exhibits in many of these details; and for an eloquence which adapts itself to all the temporary varieties of its subject, familiar with a sort of majestic grace, and simple even in its magnificence, can play amid the little decencies and proprieties of common life, or rise to all the dignity of that sublime and celestial virtue which it seems to bring from heaven indeed, but to bring it down gently and humbly to the humble bosom of man.' This is truly fine in the best sense, and evidently con amore: genius ever delights to contemplate, admire, and praise genius.

It appears then that, notwithstanding their diversities, Shaftesbury, Hutcheson, Stewart (though he is somewhat equivocal and almost a nondescript), Brown, and Smith, may all be classed together as natural-sentiment moral philosophers. The three varieties of the class are instinct or moral sense, susceptibility or emotion, and sympathy. The class nearest to the above are the intellectualists, or immutable and eternal principle moral philosophers, such as Cudworth and Price, Clarke and Wollaston. They will not detain us long after the notice already taken of them; for they are now almost quite obsolete.

Concerning Cudworth we have the following notice from the pen of Mr. Stewart, who was sufficiently disposed to eulogise the author of the Intellectual System and of the treatise of Immutable Morality. 'Cudworth (he remarks, First Dissertation p. 65) was one of the first who successfully combatted the philosophy of Hobbes. In the prosecution of his very able argument on this subject, he displays a rich store of enlightened and choice erudition, penetrated throughout with a peculiar vein of sobered and subdued Platonism, whence some German systems (such as that of Kant) have borrowed their richest materials. But the principal importance of Cudworth as an ethical writer, arises from the influence of his argument concerning the immutability of right and wrong on the various theories of morals which appeared in the course of the eighteenth century. To this argument may more particularly be traced the origin of the celebrated question, Whether the principle of moral approbation is to be ultimately resolved into reason or sentiment? a question which has furnished the chief ground of difference between the systems of Cudworth and of Clarke on the one hand, and those of Shaftesbury, Hutcheson, Hume, and Smith on the other.

'The intellectual system of Cudworth embraces a field much wider than his treatise of Immutable Morality. The latter is particularly directed against the ethical doctrines of Hobbes and the Antinomians; but the former aspires to tear up by the roots all the principles, both physical and metaphysical, of the Epicurean philosophy. It is a work, certainly, which reflects much honor on the talents of the author, and still more on the boundless extent of his learning; but it is so ill suited to the taste of the present age, that, since the time of Mr. Harris and Dr. Price, I scarcely recollect the slightest reference to it in the writings of our British metaphysicians. Of its faults (beside the general disposition of the author to discuss questions placed altogether beyond the reach of our faculties) the most prominent is the wild hypothesis of a plastic nature; or in other words 'of a vital and spiritual but unintelligent agent created by the Deity for the execution of his purposes. Notwitstanding, however, these and many other abatements of its merits, the Intellectual System will for ever remain a precious mine of information to those whose curiosity may lead them to study the spirit of the ancient theories; and to it we may justly apply what Leibnitz has somewhere said, with far less reason, of the works of the schoolmen, 'Scholasticos agnosco abundare ineptiis; sed aurum est in illo cœno.'

There is a fair portion of the writer's usual grandiloquence in this; but, notwithstanding all the pomp and circumstance of lofty statement, it is abundantly manifest that, even according to his own judgment or reluctant admission, the merits of Cudworth are of such a kind as to reflect no reproach upon the present age that they are little suited to its taste. If other Harrisses and Prices were to arise, we would insist on no other proof of the sincerity of their admiration for Cudworth, but that they should do penance by patiently reading him carefully over once at least every year. But we will give the reader the most favorable specimen which Mr. Stewart could select of the chastened and subdued Platonism of Cudworth. 'The mind,' according to this author, 'perceives, by occasion of outward objects, as much more than is represented to it by sense, as a learned man does in the best written book, than an illiterate person or brute. To the eyes of both the same characters will appear, but the learned man in those characters will see heaven, earth, sun, and stars; read profound theorems of philosophy or geometry; learn a great deal of new knowledge from them, and admire the wisdom of the composer; while, to the other, nothing appears but black strokes drawn on white paper. The reason of which is that the mind of the one is furnished with certain previous inward anticipations, ideas, and instruction, that the other wants. In the room of this book of human composition, let us now substitute the book of nature, written all over with the characters and impressions of divine wisdom and goodness, but legible only to an intellectual eye. To the sense both of man and brute there appears nothing else in it, but as in the other, so many inky scrawls; that is, nothing but figures and colors. But the mind, which hath a participation of the divine wisdom that made it, upon occasion of the sensible delineations, exerting its own inward activity, will have not only a wonderful scene and large prospects of other thoughts laid open before it, and variety of knowledge, logical, mathematical, and moral displayed; but also clearly read the divine wisdom and goodness in every page of this great volume, as it were written in large and legible characters.' Mr. Stewart remarks, on this quotation, 'I do not pretend to be an adept in the philosophy of Kant, but I certainly think I pay it a very high compliment, when I suppose that, in the Critic of Pure Reason, the leading idea is somewhat analogous to what is so much better expressed in the foregoing passage.' So it would seem Cudworthism is the germ or embryo of Kantism. This idea is not without some verisimilitude. Indeed some of the Germans themselves have remarked the identity of their doctrines. 'That Cudworth,' says Mr, Stewart, 'has blended with his principles a vein of Platonic mysticism which is not to be found in Kant is undeniable; but it does not follow from this that none of Kant's leading ideas are borrowed from the writings of Cudworth.'

Buhle, who will not allow by any means that Kant borrowed from Cudworth, finds a wonderful resemblance in the doctrines of Kant and those of Price. La philosophie morale de Price présente en effet une analogie frappante avec celle de Kant. The moral philosophy of Price presents in effect a striking agreement with that of Kant. And again, he says, 'The most remarkable of all the modern moral philosophers of England is without contradiction Richard Price. We perceive a very striking conformity in his ideas concerning the foundations of morality with those of Kant, yet it is not possible to raise the least doubt as to the entire originality of the latter.' Upon this Mr. Stewart asks, 'Is there any thing of importance in the system of Price which is not borrowed from the Treatise of Immutable Morality? The distinguishing merit of this learned and most respectable writer is the good sense with which he has applied the doctrines of Cudworth to the sceptical theories of his own times. Our critic can blow cold and hot, and he does not always speak thus respectfully of Dr. Price; but can admit that the Review of the Principal Questions in Morals is very confused and obscure; which we have already seen was the opinion also of Dr. Brown. The truth is, the work of Dr. Price was an abortive attempt to revive the obsolete doctrines of Cudworth. Dr. Price was we believe a worthy man and a very respectable mathematician and calculator (though his calculations were somewhat awry about the national debt); but whenever he meddles with metaphysical matters his mind seems muddled.

We have hitherto forborne to analyse the theory of Cudworth and Price because it is essentially the same as that of Clarke, and as we shall find of Wollaston also. The only difference is that, in addition to the unideal vacuity and obscurity common to them all, Cudworth's and Price's notions have their local habitation in the Platonic regions; or rather perhaps they are in a kind of friendly alliance or combination with Platonic mysticism. Platonic mysticism, however, does not do well when chastened and subdued, as Mr. Stewart terms it, in his eulogy of Cudworth. It does not combine well when partially used as an ingredient in intellectual systems, or moral theories; and had Cudworth and Price possessed more metaphysical sagacity they would have either taken Platonism entire or not taken it at all.

The moral theory of Clarke and Wollaston is so indefinite that it is almost as difficult to deal with it or decide upon it as about the color of the chameleon; for after all their elaborate statements and ratiocinations about it, and about it, we never feel absolutely sure what they really mean. They ring many changes upon fitness and congruity and conformity to truth; they employ many very learned forms of speech and many pompous terms about these entities, but when we would strip off the cumbrous apparel or gorgeous array of words, and examine the bare thoughts, they seem to perish in the act of undressing them. The remarks of Dr. Brown on these once famed, but now almost forgotten authors, have so much brevity and justness that we cannot do better perhaps than quote them.

'These considerations must convince you of the inadequacy of the moral systems which make virtue, in our contemplation of it, a sort of pro-

duct of reasoning like any other abstract relation, which we are capable of discovering intellectually; that of Clarke, for example, which supposes it to consist in the regulation of our conduct, according to certain fitnesses which we perceive in things, or a peculiar congruity of certain relations to each other; and that of Wollaston, which supposes virtue to consist in acting according to the truth of things, in treating objects according to their real character, and not according to a character or to properties which they truly have not,—a system which is virtually the same as that of Clarke, expressing only more awkwardly what is not very simply developed indeed, even in Dr. Clarke's speculations. These systems, independently of their general defect in making incongruity the measure of vice, assume, it must be remembered, the previous existence of feelings for which all the congruities of which they speak are insufficient to account.

'Every human action, in producing any effect whatever, must be in conformity with the fitnesses of things; the limitation of virtue, therefore, to actions which are in conformity with these fitnesses, has no meaning unless we have previously distinguished the ends which are morally good from those that are morally evil, and limited the conformity of which we speak to one of these classes. In this case, however, the theory of fitnesses, it is evident, far from accounting for the origin of moral distinctions, proceeds on the admission of them; it presupposes a distinctive love of certain virtuous ends, by their relation to which all the fitnesses of actions are to be measured; and the system of Dr. Clarke, therefore, if stripped of its pompous phraseology and translated into common language, is nothing more than the very simple truism or tautology, that to act virtuously is to act in conformity with virtue.

'From this doctrine of conformity to the fitness of things the theory of Wollaston, in which virtue is made to consist in the conformity of our actions to the true nature of things, scarcely differs in any respect except as being a little more circuitous and complicated. The work of Mr. Wollaston, with all its ostentatious erudition, contains so much manifest absurdity, that, if I were desirous of convincing any one of the influence of a system in producing in the mind of its author a ready acquiescence in errors the most absurd, in explanations far more necessary to be explained than the very difficulties which they professed to remove, I know no work which I could put into his hands better suited for this purpose than the Religion of Nature Delineated.'

We do not think that Wollaston's work ever attained much credit. It did not drop still-born from the press, for the author had some fortune; but it was very soon laid out for dead on old book-stalls, where it may still be seen among other literary mummies, though it has almost ceased to have even that kind of existence. We do not remember how long it is since the notice of the author first appeared in Gen. Dict.; but there it is said that his Religion of Nature Delineated is an attempt to prove the truth of religion on mathematical principles. It is a curious work, but very abstruse. His predecessor, in the high à priori demonstrative way, had for a time at least a better fate; for it was a part of the literary fashion or idolatry, forty or fifty years ago, to cry up Dr. Samuel Clarke as a sort of second Newton, an intellectual prodigy in mighty mathematico-metaphysical reasoning, only too profound or sublime for common minds to comprehend him, which could only therefore stare at a distance in wonder and astonishment. It is true that wicked wit, Voltaire, designated him a reasoning machine; and if he had compared him to a barrel organ, made to play off some dozen self-designated demonstrations with wonderful noise and facility, he would have been perhaps still nearer the mark. When we wish to have an image of a mathematico-metaphysico-automaton we think of Dr. Samuel Clarke. We are aware of the circumstance which contributed mainly to the high reputation of Dr. Clarke. But we have much doubt as to the wisdom of hailing with rapture and applause such champions of religion and morality.

The religious and moral utility of such demonstrative grandiloquence, self-importance, and vituperation as the following, we confess, comes to our mind in a very questionable shape. Having professed to have done we know not well what demonstrative feats of intellectual might and heroism, Dr. Clarke opens his Discourse concerning the Unalterable Obligations of Natural Religion, in the following high and confident manner:—'It remains, now, in order to complete my design of proving and establishing the truth and excellency of the whole superstructure of our most holy religion, that I proceed, upon this foundation of the certainty of the being and attributes of God, to demonstrate in the next place the unalterable obligations of natural religion, and the certainty of divine revelation; in opposition to the vain arguings of certain vicious and profane men, who, merely upon account of their incredulity, would be thought to be strict adherers to reason, and sincere and diligent enquirers into truth; when indeed, on the contrary, there is but too much cause to fear, that they are not at all sincerely and really desirous to be satisfied in the true state of things, but only seek, under the pretence and cover of infidelity, to excuse their vices and debaucheries, which they are so strongly inslaved to, that they cannot prevail with themselves upon any account to forsake them; and yet a rational submitting to such truths, as just evidence and unanswerable reason would induce them to believe, must necessarily make them uneasy under, and self condemned in, the practice of them. It remains, therefore, I say, in order to finish the design I proposed to myself of establishing the truth and excellency of our holy religion, in opposition to all such vain pretenders to reason as these, that I proceed at this time, by a continuation of the same method of arguing by which I before demonstrated the being and attributes of God, to prove distinctly the following propositions:—

1. 'That the same necessity and eternal different relations, that different things bear to one another; and the same consequent fitness or un-

fitness of the application of different things or different relations one to another; with regard to which the will of God always and necessarily does determine itself to choose to act only what is agreeable to justice, equity, goodness, and truth, in order to the welfare of the whole universe; ought likewise constantly to determine the wills of all subordinate rational beings, to govern all their actions by the same rules for the good of the public in their respective stations; that is, these eternal and necessary differences of things make it fit and reasonable for creatures so to act; they cause it to be their duty, or lay an obligation upon them so to do, even separate from the consideration of these rules being the positive will or command of God; and also antecedent to any respect or regard, expectation or apprehension, of any particular private and personal advantage or disadvantage, reward or punishment, either present or future, annexed either by natural consequence, or by positive appointment, to the practice or neglecting those rules.

2. 'That though these eternal moral obligations are indeed of themselves incumbent on all rational beings, even antecedent to the consideration of their being the positive will and command of God; yet that which most strongly confirms, and in practice most effectually and indispensably inforces them upon us, is this, that both from the nature of things, and perfections of God, and from several other collateral considerations, it appears that as these eternal moral obligations are really in perpetual force, merely from their own nature and the abstract reason of things; so also they are moreover the express and unalterable will, command, and law of God to his creature, which'—

But enough and more than enough. We have as little affection for the atheistical opinions of Hobbes or of Spinoza, as Dr. Clarke could possibly have, yet we blush and grieve to think that they should be assailed, and religion defended in this manner, by a learned doctor of high mathematical and metaphysical celebrity; and that in the eighteenth century of the Christian era, the wisest and best men of all denominations of the Christian church should vie with one another in applauding it as triumphant championship. We will not give utterance to our thoughts and feelings, else we could a tale unfold as to the effects of such theological and ethical championship on some minds; for, compared with such reasonings as those of Clarke, our experience pronounces the reasonings of Hobbes, Spinoza, Boyle, and Hume, powerless and inert, or rather salutary. But we are sincerely desirous of doing nothing but good to the minds of men; and, being afraid to take our own experience as a criterion for other minds, we frequently know not well what to do, or how to write. We are convinced, however, at least of this, that it is now time to dismiss Clarke and Wollaston after Cudworth and Price. We will therefore take our full and final leave of them with two or three remarks.

It must have appeared to the discerning reader that whilst there is a sort of general or essential agreement in the opinions of Cudworth, Price, Clarke, and Wollaston, so far as they can be ascertained; yet the statements of no two or more of them are absolutely identical. Price was not quite satisfied with the doctrine of Cudworth, and attempted (very unsuccessfully) to reform or remould it into a less questionable or less objectionable shape, by chastening and subduing yet more the chastened and subdued Platonism of his master. Clarke would have nothing to do with the chaste and tame Platonism of Cudworth, but was fully prepared and duly qualified to demonstrate the eternal and immutable nature of morality in the high a priori way; and was an ethical Hercules or logical Boanerges among 'the necessary and eternal relations that different things bear to one another, and the consequent fitness or unfitness of the application of different things or different relations one to another.' Wollaston was not quite satisfied with Clarke's manner of putting this mighty matter, or, having too much spirit and originality to say merely after him as the clerk says after the priest, he would not have fitness and unfitness, but conformity and disconformity to truth, as the eternal and immutable principles of natural religion and morality. There is something in all this to put one in mind of what is related of the old builders of Babel. If we view these immutable-principle moral philosophers, in connexion with their natural-sentiment fellow-laborers, their tongues are still more strangely divided. Indeed Dr. Price was evidently alarmed at the ethical efforts of Shaftesbury and Hutcheson as equally destructive and subversive of all moral distinctions with the atheistical reasonings of the most avowed antimoral-distinction philosophers, and hoped to perform a most meritorious service to religion and morality by calling in the aid of Cudworth as the only means of staying the plague in the camp. We are far from thinking that the fears of Dr. Price were groundless or visionary. It is true, the natural-sentiment moral philosophers have their fears and apprehensions too, and strenuously assert that the natural-sentiment principle is the only rock of moral safety and defence; that if this be abandoned we must be plunged headlong into the eternal abyss of absolute scepticism; and that if a moral principle be not admitted or assumed as innate or inherent in the human mind, itself prior to and independent of all acquired notions and feelings, there can be no moral distinctions, no virtue and vice, no right and wrong whatever.

If the natural-sentiment moral principle be any thing; that is, if the doctrines of Shaftesbury, Hutcheson, Smith, Stewart, and Browne (and they would have it seems, according to Mr. Stewart's classification, Mr. Hume to belong to them) mean any thing, we are to admit or assume that there is in the human mind an instinctive, a natural, an inherent, love for virtue, and hatred to vice. If this were any thing more or better than mere theoretic assumption, sure enough virtue would be put on a firm footing or solid foundation among us. It might be liable to a few accidental injuries perhaps; casualties will happen in the best ordered state of things we are at present acquainted with;

but in the case supposed, vices being merely casualties or anomalous deviations and exceptions, the human mind, and consequently human society, will soon right itself again by the vis naturæ—the inherent force of natural original tendency. This, or at least something very like this, would seem to be the fair import or necessary consequence of some of Dr. Brown's most eloquent lectures. But, much as we admire his genius and talent, we are afraid the doctrine is too good to be true. We have not been able to find any confirmation of it from experience, from observation, from history, sacred or profane. All our experimental and inductive researches (concerning which Mr. Stewart pays so many handsome and flattering compliments to his Philosophy of Mind) for that purpose have hitherto proved fruitless. Nothing we conceive is more devoutly to be wished than that virtue should be put upon a sure footing or firm foundation; and we are only sorry that the success both of the intellectual-principle and natural-sentiment principle moral philosophers has not been equal to the goodness of their intentions, or to their strenuous efforts. As Adam Smith so well remarks, we naturally judge by the event rather than the intent: it is success or triumph that makes the hero of our admiration and applause.

In direct opposition to all the above moral theorists, we have to present another group of philosophic theorists concerning human nature; but we know not well how to designate them, though they are unquestionably of the same class, distinguished indeed by considerable varieties. We might, perhaps, if it would not seem invidious, term them the atheistical, or anti-moral-distinction, or utilitarian theorists. Perhaps Mr. Stewart would have them called Epicurean moral philosophers; and certainly they have much affinity to Epicurus, and might in a general way be conveniently classed with him. We wish not to offend Mr. Bentham by using dyslegistic terms or designations. But that philanthropic philosopher will admit that the fault is to be charged to our established language rather than to us who use it; for, without much very troublesome or inefficient circumlocution, how are we wholly to avoid dyslogistic phraseology? How indeed is it practicable to avoid it without fabricating a new language? We are persuaded that the individual alluded to (for whom, as a philanthropic philosopher and jurisconsult, we entertain every sentiment of esteem) is not satisfied with his attempts to construct a neutrologistic language. We try as much as possible to use the language we have ready made to our hand neutrologistically, but we are too diffident of our ability and success to imitate Mr. Bentham in attempting to fabricate a new one. In short, we have as little odium theologicum or odium philosophicum or any odium whatever towards those whom we have attempted to indicate, and of whom we are now to write, as towards Cudworth and Price, or Smith and Brown. Our wish is to deal fairly and honestly with those who come under consideration as philosophers, without fear or favor, fondness or antipathy, on account of their peculiar opinions. Perhaps, indeed, we shall incur the imputation of being too tender and partial towards those of whom we are about to speak.

The philosophers alluded to as belonging to the same ethical class or genus are Hobbes, Mandeville, Hume, Bentham, and we might add, if it were worth while to notice them, Montaigne, Rochefoucault, Diderot, Helvetius, and in short all those usually called the French philosophers, or the advocates of the new philosophy. We intend only, however, to take some notice of Hobbes, Mandeville, and Hume. The last mentioned indeed is so equivocal that it is difficult to know where to put him, except by himself. We have seen that Mr. Stewart ranges him among the natural-sentiment moral philosophers, with Shaftesbury, Hutcheson, and Smith; and he is really so much of a sentimentalist and sophist withal as not to be very worthy of standing in juxtaposition with Hobbes and Mandeville; but he may be conveniently treated of after them.

Before remarking on Hobbes an observation or two may be offered respecting Locke, who is so equivocal as to be a sort of ethical nondescript. Beattie and Mr. Stewart do not well know what to make of him. The latter is very unwilling to give him up; and, wishing to have the sanction of his established authority, labors might and main to make him perfectly orthodox, though somewhat unguarded and blundering in some of his statements. We shall give a few specimens of his attempts, as throwing some glimmerings on Locke's ethical memory, from that amusing olio the First Dissertation of the Supplement to the Encyclopædia Britannica.

'Among the doctrines of Locke, there are two of fundamental importance, which have misled many of his successors. The first of these relates to the origin of our ideas; the second to the power of moral perception, and the immutability of moral distinctions. On both questions, the real opinion of Locke has, if I am not widely mistaken, been very grossly misapprehended, or misrepresented, by a large portion of his professed followers, as well as of his avowed antagonists. 'The first book,' says Dr. Beattie, 'of the Essay on Human Understanding tends to establish this dangerous doctrine, that the human mind, previous to education and habit, is as susceptible of any one impression as of any other: a doctrine which, if true, would go near to prove that truth and virtue are no better than human contrivances; or, at least, that they have nothing permanent in their nature, but may be as changeable as the inclinations and capacities of men. Surely this is not the doctrine that Locke meant to establish; but his zeal against innate ideas and principles put him off his guard, and made him allow too little to instinct, for fear of allowing too much.' It is fortunate for Locke's reputation, that, in other parts of his Essay, he has disavowed, in the most unequivocal terms, those dangerous conclusions which, it must be owned, the general strain of his first book has too much the appearance of favoring. Lord Shaftesbury was one of the first who sounded the alarm against what he conceived to be the drift of that philosophy which denies the existence of innate principles.

Various strictures occur in the Characteristics; particularly in the treatise entitled Advice to an Author; but the most direct of all his attacks on Locke is in his Eighth Letter, addressed to a student at the university. 'All those called free writers, now-a-days,' he observes, 'have espoused those principles which Mr. Hobbes set a foot in this last age. Mr. Locke, as much as I honor him on account of other writings, and as well as I know him, and can answer for his sincerity as a most zealous Christian and believer, did, however, go in the self-same track. It was Mr. Locke that struck the home blow: for Mr. Hobbes's character, and base slavish principles of government, took off the poison of his philosophy. It was Mr. Locke that struck at all fundamentals, threw all order and virtue out of the world, and made the very idea of these (which are the same with those of God), unnatural and without foundation in our minds.'

This is the very same kind of language as that employed by the bishop of Worcester and the other ecclesiastical dignitaries and antagonists of Locke; though he was more than a match for them in argumentation. In opposition to all such imputations and charges Mr. Stewart insists, of course, that all the world, friends and foes, misunderstood Mr. Locke; and he brings forward some detached passages from his writings in confirmation of his ethical orthodoxy; such as the following:—'He that hath the idea of an intelligent, but frail and weak, being, made by and depending on another, who is omnipotent, perfectly wise, and good, will as certainly know that man is to honor, fear, and obey God, as that the sun shines when he sees it; nor can he be surer, in a clear morning, that the sun is risen, if he will but open his eyes and look that way. But yet these truths, being never so certain, never so clear, he may be ignorant of either, or of all of them, who will never take the pains to employ his faculties as he should to inform himself about them.' 'There is a law of nature, as intelligible to a rational creature and studier of that law, as the positive laws of commonwealths.' 'There is a great deal of difference between an innate law and a law of nature; between something imprinted on our minds in their very original, and something that we, being ignorant of, may attain to the knowledge of, by the use and due application of our natural faculties. And I think they equally forsake the truth who, recurring into the contrary extremes, either affirm an innate law, or deny that there is a law knowable by the light of nature, without the help of positive revelation.' 'He that, with Archelaus, shall lay it down as a principle that right and wrong, honest and dishonest, are defined only by laws, and not by nature, will have other measures of moral rectitude and pravity than those who take it for granted that we are under obligations antecedent to all human constitutions.'

Of course Mr. Stewart was dazzled and delighted with all this evidence that Mr. Locke, notwithstanding many suspicious reasonings, and though not a natural-sentiment or innate instinctive moral philosopher, might yet be ranked with Clarke and Wollaston as perfectly orthodox in the main, respecting the immutability of moral distinctions, founded in the fitness of things, or in conformity to eternal truth. Nay, such was Mr. Locke's confidence in the law and light of nature, that he was disposed to make little or nothing of the law and light of revelation in comparison with them. Thus, in the concluding paragraph of the ninth chapter, in the third book of his essays, he says:—'Nor is it to be wondered that the will of God, when clothed in words, should be liable to that doubt and uncertainty which unavoidably attends that sort of conveyance. And we ought to magnify his goodness that he hath spread before all the world such legible characters of his works and providence, and given all mankind so sufficient a light of reason, that they to whom the written word never came could not (whenever they set themselves to search), either doubt of the being of a God or of the obedience due to him. Since then the precepts of natural religion are plain and very intelligible to all mankind, and seldom come to be controverted; and revealed truths are liable to the common and natural obscurities and difficulties incident to words; methinks it would become us to be more careful and diligent in observing the former, and less magisterial, positive, and imperious, in imposing our sense and interpretations of the latter.'

Such were the notions of Mr. Locke respecting the clearness and certainty of the light and law of nature; but such were not the notions of Hobbes, from whom he borrowed the mass of his materials. The truth is, Mr. Locke's great work is a motley mixture of eclectic inconsistencies, jumbled together with very little method; and, therefore, it is not very wonderful that Mr. Stewart should have to accuse all the world of misunderstanding him. Only it would have been more reasonable if the metaphysical critic had dwelt more fully and explicitly on the evidence which exists, that Mr. Locke did not understand himself, or know well what he was about. Since, however, according to the high authority of lord Shaftesbury 'it was Locke who struck the home-blow at all fundamentals, and threw all order and virtue out of the world,' it surely becomes his admirers to be more tolerant towards the memory of his master, who was as superior, philosophically considered, to the disciple as ever Newton was to William Whiston.

In speaking of the ethical doctrines (for we thus term their speculations for the sake of brevity), of Hobbes and of Mandeville, we must begin by remarking that they are founded on a very bad opinion of human nature. In this respect their theories are diametrically opposite to those of most of the natural-sentiment moral philosophers. These last have a sort of beau ideal of human nature, around which their reasonings constantly revolve;—they trace all that is great and good in human society, or is recorded in history, to good principles, tendencies, or instincts, in human nature; and much of what is manifestly evil, too, they would seem to trace to a good original tendency. On the other hand, Hobbes and Mandeville (and others whom it is not worth while to notice), would trace naturally all that is bad in the history of mankind to an evil original tendency, or to selfishness; but even all that is

good, by a skilful management of the evil natural principle. Consequently the former are sentimental panegyrists; the latter are bitter satirists of human nature and human life. It has been laid down, as a kind of axiom, that there is usually more truth in satire than in panegyric; and we suspect the axiom will hold in the present case; and that there is at least a basis of truth about the doctrines of Hobbes and Mandeville which cannot be found in the opposite theories. They seem, at least, to accord best with the actual state and history of mankind; and what is very observable they harmonize very much with the doctrine of the bible; which pronounces the 'heart of man deceitful above all things and desperately wicked;' and that men 'go astray from the womb speaking lies.' If the doctrines of the bible be calculated to abase man, and to stain the pride of human glory, the same may be affirmed of those of Hobbes and Mandeville. The former of these may be compared to Heraclitus, the latter to Democritus; for, as there was something of gloom in the one at beholding the evil which he described, it seems to have been a wicked pleasure to the other to paint human nature in the ugliest and most contemptible forms and colors. Hogarth could never enjoy the work of his hand more than this coarse Dutchman the broad graphic touches of his pen in describing human nature. Mandeville is indeed the Hogarth of moral painters, and we always fancy that we see him in propriâ personâ grinning from behind the canvas. We would have all the ardent lovers of the beau ideal of human nature read Mandeville; and their dulness or their resentment at the insult offered to human dignity must be very powerful indeed if they can long maintain their gravity. If it be all a false picture, or wicked, wilful, misrepresentation, of our noble nature which he gives, he has at least the art of caricaturing its imperfections with infinite dexterity. But though there be much acuteness and talent, and much philosophy too, about the author of the fable of the Bees, or Private Vices Public Benefits, we cannot praise him, or regard him as any thing but a licentious satirist, who wantonly compounds all moral distinctions. In representing human nature as radically bad he accords with the testimony of sacred Scripture; but at that point, abstractedly considered, the accordance stops. The manner and spirit of Mandeville, and his deductions and reasonings from the doctrine of human pravity, are as opposite to those of the bible as darkness is to light. The good men described as writing that book under supernatural guidance, and most of all He whom reverence will not permit us to name in such a connexion, resembled Heraclitus rather than Democritus or Mandeville. The following is a concise but just statement of Mandeville's theory:—

'In some measure akin to the theory of such political moralists as Hobbes, since it ascribes morality, in like manner, to human contrivance, is the system of Mandeville, who considers the general praise of virtue to be a mere artifice of political skill; and what the world consents to praise as virtue in the individual, to be a mere imposition on the part of the virtuous man. Human life, in short, according to him, is a constant intercourse of hypocrisy with hypocrisy; in which, by an involuntary self-denial, present enjoyment of some kind or other is sacrificed for the pleasure of that praise which society, as cunning as the individual self-denier, is ready to give, but gives only in return for sacrifices made to its advantage. That man, like all other animals, is naturally solicitous only of his personal gratification, without regard to the happiness or misery of others; that the great point with the original lawgivers, or tamers of these human animals, was to obtain from them the sacrifice of individual gratification, for the greater happiness of others; that this sacrifice, however, could not be expected from creatures that cared only for themselves, unless a full equivalent were offered for the enjoyment sacrificed; that as this, at least in the greater number of cases, could not be found in objects of sensual gratification, or in the means of obtaining sensual gratification, which are given in exchange in common purchases, it was necessary to have recourse to some other appetite of man; that the natural appetite of man for praise readily presented itself for this useful end, and that, by flattering him into the belief that he would be counted nobler for the sacrifices which he might make, he was led accordingly to purchase this praise by a fair barter of that, which, though he valued it much, and would not have parted with it but for some equivalent or greater gain, he still valued less than the praise which he was to acquire; that the moral virtues, therefore, to use his strong expression, are 'the political offspring which flattery begot upon pride;' and that when we think we see virtue, we see only the indulgence of some frailty, or the expectation of some praise.'

The above theory is worked up with much effect, and enlivened by striking sketches from low life; and it must be confessed there has always been too much in the actual character of society to give an air of fidelity to the whole representation. In fact, we doubt whether it be not actually a true picture as to the great majority of every people. Rochefoucault, who had so much opportunity and talent for observing the society of a court, resolves all virtue, like Mandeville and Montaigne, and some other acute and reflecting men, into self-love, of which the desire of praise is merely one of its many forms. And sure enough much of what passes and is praised as virtue in the world is quite worthy of such an ignoble origin; and it is amusing to observe what description of illustrations the moral philosophers run to, with breathless eagerness, whenever they wish to set off, to the best advantage, the beau ideal of human excellence, the native dignity of man, and his innate delight in virtue. If our space would permit, we would give some admirable specimens from Dr. Adam Smith's Theory of Moral Sentiments, and from Dr. Brown's Lectures; for we would not think of quoting for the purpose from inferior authors, or mere sentimental declaimers. If however all men could be brought to think absolutely with Mandeville, we might expect indeed that a 'home blow would be struck at all fundamentals, and that all real virtue would be thrown out of

the world.' But there has always been a portion of moral salt in the earth; there have, even in the worst times, been higher principles and influences in operation than those which the Mandeville's understand, and which alone they are qualified to appreciate.

The theory of Hobbes, as already indicated, if not absolutely the same as that of Mandeville, is at least nearly akin to it; in short, the one is, as much as the other, only a modification of the same atheistical system, which assumes the original moral indifference of actions, which considers all morality as mutable and adventitious, a mere entity of circumstances, being sometimes right, sometimes wrong, at one time or place good, at another bad, according to human opinions, prejudices, passions, and habits. This is the basis of what is usually called the new or French philosophy. And it is well for the world that it finds, at least in many of the best and most influential minds, something as steady and powerful as a moral instinct to repel it. Nor is it without benefit to mankind (for thus good is educed from evil) that such a philosophy should have an opportunity occasionally of developing its latent qualities, and of performing its mighty works or miracles in the open theatre of the world, and in the full view of all nations. The whole process of the French revolution was a sort of experiment in the new philosophy, to demonstrate how innoxious and salutary, how good and profitable to men, atheism is, in all its tendencies, operations, and results. If, according to the followers of Epicurus, fear was the creator of the gods, atheism has had a good chance of being deified and worshipped; for even many of its boldest and most reckless advocates have been dismayed with terror when they have seen its goings forth in the sanctuary of infidelity, arrayed in the awful majesty of irresistible power. The most benevolent ameliorators of the social union or political condition, the most philanthropic utilitarian philosophers, have had enough of evidence laid before them to make them despair of doing much good to the human race on Epicurean principles. Perhaps if the author of De Cive and of Leviathan were to return to our world, and write upon political and moral subjects, his reasonings would have less affinity with those of Aristippus, of Archelaus, or of Epicurus, than they had before. The moral and political speculations and experiments that have been made within the last hundred years would not be lost upon him; and we would willingly trust his understanding in metaphysical matters, provided it were free from every theoretic bias, and were not under the influence of any moral antipathy to religion.

Hobbes was an acute metaphysician, but he was in effect, or rather in reality, a confirmed atheist. He admitted the Being of a God, or first cause, but he denied the possibility of knowing any thing about Him or It, or what that first cause is or was. Of course this is to all intents and purposes atheism. If we were not afraid of being misunderstood we would say that Hobbes was too good a metaphysician—too acute and reflective—too much of an analytic reasoner to be a mere theist. Such assumptions, and paralogisms, and conclusions, as satisfy the common multitude of deists, could not satisfy his mind; and, being invincibly opposed to revelation, he embraced a particular modification of atheism as the least absurd or most reasonable kind of belief that he could, or rather would, find. Hobbes could not have reasoned and written, as Mr. Locke has done, about the clearness and certainty of the law of nature, and of the precepts of natural religion.

From atheism of every description or modification the absolute moral indifference of actions necessarily follows; or, as Shaftesbury expresses it, all virtue is thrown out of the world; there may be qualities and actions of human beings that they like or dislike in one another, and reward or punish; there may be political distinctions, and virtues, and vices; but there can be nothing that has been usually called, or that deserves to be called, moral distinctions, or virtues and vices. Hobbes was too acute not to perceive this, and he was too frank not to own it; and therefore he at once resolved all right and wrong, all morality, into the discretionary decision of political authority. In short, according to Hobbes, the government, whatever that government be, whether a democracy or aristocracy, a mixed or simple monarchy, or pure despotism, is the sole lawgiver and judge of morality. This supreme authority can do no wrong, and whatever it decrees is right; and conformity to its decrees is the only immutability morality admits of. The will of king, lords, and commons, is to enact, abrogate, alter, and amend, the moral code, as seemeth good. We have been long said to have an act-of-parliament religion; but it appears we ought to have an act-of-parliament morality also. Nay, we may have an established national morality by a much shorter process, if we choose to enjoy all its benefits. The royal will of a Philip or Ferdinand, of a czar or grand signior, of a Nero or Caligula, is, according to Hobbes, the sole origin, and standard, and measure, of right and wrong, of virtue and vice. But enough; this is too palpable to require refutation. Yet strange, absurd, and bad, as it appears to us, what was Hobbes to do in the matter of morality on his previously assumed atheistical principles? What have others, upon the same principles, been able to do materially different, or better? Let us enquire by examining Mr. Hume's theory of morals.

We have said Mr. Hume's *theory;* but the term, though sufficiently vague, is too definite to be applied to the opinions or speculations of such a subtle, flexible, shifting reasoner, as the author of An Enquiry concerning the Principles of Morals, who always contrives to make one set of reasonings counterbalance another, and one sort of principle supersede some other sort of principle; as if the only conclusion possible to come to is, that nothing can be concluded, and that all is vanity, and vexation, and scepticism. Mr. Addison has somewhere said, that he could never rise from the reading of those authors who give degrading representations of our noble nature without being out of humor with himself and every body about him; and we seldom rise from the reading of Hume without being out

of humor with him and his reasonings. Having, in his usual manner of mooting the question as alternate plaintiff and defendant, drawn up in counterarray the arguments pro and con, he then takes his seat on the tribunal of dispassionate judgment, and sums up the whole with the most calm and grave indifference imaginable. 'These arguments on each side (and many more might be produced) are so plausible, that I am apt to suspect, they may, the one as well as the other, be solid and satisfactory; and that reason and sentiment concur in almost all moral determinations and conclusions. The final sentence, it is probable, which pronounces characters and actions amiable or odious, praiseworthy or blameable; that which stamps on them the mark of honor or infamy, approbation or censure; that which renders morality an active principle, and constitutes virtue our happiness, and vice our misery. It is probable, I say, that this final sentence depends on some internal sense or feeling which nature has made universal in the whole species. For what else can have an influence of this nature? But in order to pave the way for such a sentiment, and give a proper discernment of its object, it is often necessary, we find, that much reasoning should precede, that nice distinctions be made, just conclusions drawn, distant comparisons formed, complicated relations examined, and general facts fixed and ascertained.'

This is the first hearing of the chancery case concerning the principles of morals; and our philosopher has had an opportunity of showing all the world that he was as wonderful in judgment as mighty in counsel—that he could be as able a judge on the bench, as erst he was a special pleader at the bar. The claims of reason and of sentiment are held to be equally good, and the question is kept in abeyance. Accordingly in the further hearing of the case the claims of reason seem not only admitted, but exclusively in the first steps of progress attended to; and utility is with some doubt and hesitation thought to be probably, in part at least, the origin and measure of virtue. 'We may observe, that in displaying the praises of any humane beneficent man, there is one circumstance which never fails to be amply insisted on, namely, the happiness and satisfaction derived to society from his intercourse and good offices. * * * As such topics of praise never fail to be employed, and with success, where we would inspire esteem for any one; may it not thence be concluded, that the utility resulting from the social virtues forms at least a part of their merit, and is one source of that approbation and regard so universally paid to them?

'When we recommend even an animal or plant as useful and beneficial, we give it an applause and recommendation suited to its nature. * * * A machine, a piece of furniture, a vestment, a house well contrived for use and conveniency is so far beautiful, and is contemplated with pleasure and approbation. * * * In general, what praise is employed in the simple epithet *useful!* What reproach in the contrary!'

It would seem then that in part at least utility is merit, and that a good man has at least as much virtue about him as a good machine, or piece of furniture, or vestment, or well-contrived house. In the further hearings of the case, our judge gets rid of his doubt and hesitation, and pronounces finally and absolutely in favor of utility, as forming not a part merely, but the whole of merit. All the virtues are resolved into or ascribed to utility. This is the principle of all moral distinctions—the only source and standard and measure of all human excellence; and as reason must find out what is useful about men or machines, or vestments, of course moral distinctions are referrible to reason and not to sentiment. Now then that morality is placed on the firm and broad foundation of utility, in conformity with reason, it will surely rest and remain secure. We might have supposed, at least, that the judge would not have disturbed his own decision, so fully and gravely delivered, after so hesitatingly and patiently weighing all the arguments and evidence; but it was scarcely recorded when the sentence must be reversed; for it is found out, by a sort of after-process of reasoning, that utility and reason have nothing at all to do with merit, or virtue, or morality; but that the whole is ascribable to mere blind sentiment, for which no reason can be assigned, the very attempt to account for which, indeed, is ridiculed as absurd. The philosophic advocate of utility as the sole foundation of all morality can easily abandon his client, unsay all his wise sayings, counterargue all his own arguments, and wriggle out of all the obligations of consistency into full and free liberty to take up whatever new position vanity, or scepticism, or sophistry may present. The following is the prelusive flourish in showing a more excellent way of moral philosophy than that of utility and reason:

'Treating vice with the greatest candor, and making it all possible concessions, we must acknowledge, that there is not in any instance the smallest pretext for giving it the preference above virtue, with a view to self-interest; except, perhaps, in the case of justice, where a man, taking things in a certain light, may often seem to be a loser by integrity. And though it is allowed that without a regard to property no society could subsist; yet, according to the imperfect way in which human affairs are conducted, a sensible knave, in particular incidents, may think that an act of iniquity or infidelity will make a considerable addition to his fortune, without causing any considerable breach in the social union and confederacy. That 'honesty is the best policy,' may be a good general rule; but is liable to many exceptions: and he, it may perhaps be thought, conducts himself with most wisdom who observes the general rule, and takes advantage of all the exceptions. I confess that if a man thinks that this reasoning requires an answer, it will be a little difficult to find any which will to him appear satisfactory and convincing.'

Very well stated: we wish not to have the doctrine of utilitarian moral philosophy differently handled; this is at least one useful and convincing way of examining its character and credentials. But hear him out:—'If the foregoing hypothesis be received, it will now be easy for us to determine the first question started, (started truly to be run down!) concerning the

general principle of morals, * * * we may resume it at present, and examine how far either reason or sentiment enters into all decisions of praise or censure. One principal foundation of moral praise being supposed to lie in the usefulness of any quality or action, it is evident that reason must enter for a considerable share in all decisions of this kind; since nothing but that faculty can instruct us in the tendency of qualities and actions, and point out their beneficial consequences to society and to their possessor. In many cases this is an affair liable to great controversy: doubts may arise; opposite interests may occur; and a preference must be given to one side from very nice views, and a small overbalance of utility. * * * Though reason, when fully assisted and improved, be sufficient to instruct us in the pernicious or useful tendency of qualities and actions, it is not alone sufficient to produce any moral blame or approbation. Utility is only a tendency to a certain end; and, were the end totally indifferent to us, we should feel the same indifference towards the means. It is requisite a sentiment should here display itself, in order to give a preference to the useful above the pernicious tendencies.'

Our moral philosopher soon becomes more explicit and peremptory; and if the sceptic be any where transmuted into a dogmatist it is when treating of what he terms 'the blind but sure testimony of taste and sentiment.' 'The hypothesis (he says, Appendix 1, concerning Moral Sentiment) which we embrace is plain. It maintains that morality is determined by sentiment; it defines virtue to be whatever mental action or quality gives a spectator the pleasing sentiment of approbation; and vice the contrary. We then proceed to examine a plain matter of fact, to wit, what actions have this influence: we consider all the circumstances in which these actions agree: and thence endeavour to extract some general observations with regard to these sentiments. If you call this metaphysics, and find any thing abstruse here, you need only conclude that your turn of mind is not suited to the moral sciences. * * * When Nero killed Agrippina, all the relations between himself and the person, and all the circumstances of the fact, were previously known to him: but the motive of revenge, or fear, or interest, prevailed in his savage heart over the sentiment of duty and humanity. And when we express that detestation against him, to which he himself in a little time became insensible; it is not that we see any relations of which he was ignorant; but that, from the rectitude of our disposition, we feel sentiments against which he was hardened, from flattery and a long perseverance in the most enormous crimes. In these sentiments then, not in a discovery of relations of any kind, do all moral determinations consist. Before we can pretend to form any decision of this kind, every thing must be known and ascertained on the side of the object or action. Nothing remains but to feel, on our part, some sentiment of blame or approbation; whence we pronounce the action criminal or virtuous.

'This doctrine will become still more evident, if we compare moral beauty with natural, to which, in many particulars, it bears so near a resemblance. * * * In all decisions of taste or external beauty, all the relations are before hand obvious to the eye; and we thence proceed to feel a sentiment of complacency or disgust, according to the nature of the object and disposition of our organs. * * * Attend to Cicero, while he paints the crimes of a Verres or a Catiline; you must acknowledge that the moral turpitude results, in the same manner, from the contemplation of the whole, when presented to a being, whose organs have such a particular structure and formation. The orator may paint rage, insolence, barbarity on the one side: meekness, suffering, sorrow, innocence, on the other: but if you feel no indignation or compassion arise in you, from this complication of circumstances, you would in vain ask in what consists the crime or villany which he so vehemently exclaims against; at what time, or on what subject, it first began to exist; and what has become of it a few months afterwards, when every disposition and thought of all the actors is totally altered, or annihilated. No satisfactory answer can be given to any of these questions upon the abstract hypothesis of morals; and we must at last acknowledge, that the crime or immorality is no particular fact or relation, which can be the object of the understanding: but arises entirely from the sentiment of disapprobation, which, by the structure of human nature, we unavoidably feel on the apprehension of barbarity or treachery.

'It appears evident that the ultimate ends of human actions can never, in any case, be accounted for by reason, but recommend themselves entirely to the sentiments and affections of mankind, without any dependence on the intellectual faculties. * * * Something must be desirable on its own account, and because of its immediate accord or agreement with human sentiment and affection. Now as virtue is an end, and is desirable on its own account, without fee or reward, merely for the immediate satisfaction which it conveys; it is requisite that there should be some sentiment which it touches; some internal taste or feeling, or whatever you please to call it, which distinguishes moral good and evil, and which embraces the one and rejects the other. Thus the distinct boundaries and offices of reason and of taste are easily ascertained. The former conveys the knowledge of truth and falsehood: the latter gives the sentiment of beauty and deformity, vice and virtue. The one discovers objects, as they really stand in nature, without addition or diminution: the other has a productive faculty, and gilding or staining all natural objects with the colors, borrowed from internal sentiment, raises in a manner, a new creation.'

It would be superfluous to quote more, though pages might be presented to the same purpose. This is one of the doctrines of Hume which he varies and repeats incessantly. It meets us every where in his Essays, particularly in one entitled The Sceptic, and in another on the Standard of Taste. The reason is obvious: it is a true sceptical doctrine; and scepticism was his intellectual centre of gravity, or the easy chair into which he naturally 'fell back' (to use his own expression) to enjoy philosophic tranquillity. Virtue and vice, like beauty and deformity, are wholly an affair of

'blind sentiment' or taste, and all the world knows that there is no disputing about taste; and that it would be as wise to rest any thing weighty or important upon it as to attempt to build a palace on a sand-bank or a temple on a wave! 'All sentiment is right (Essay 23. Of the Standard of Taste) because sentiment has a reference to nothing beyond itself, and is always real, wherever a man is conscious of it. * * * A thousand different sentiments excited by the same object are all right: because no sentiment represents what is really in the object. It only marks a certain conformity or relation between the object and the organs or faculties of the mind; and, if that conformity did not really exist, the sentiment could never possibly have being. Beauty is no quality in things themselves: it exists merely in the mind which contemplates them; and each mind perceives a different beauty. One person may even perceive deformity where another is sensible of beauty; and every individual ought to acquiesce in his own sentiment, without pretending to regulate those of others. To seek the real beauty, or real deformity, is as fruitless an enquiry as to pretend to ascertain the real sweet or real bitter. According to the disposition of the organs, the same object may be both sweet and bitter; and the proverb has justly determined it to be fruitless to dispute concerning tastes. It is very natural, and even quite necessary, to extend this axiom to mental as well as bodily taste; and thus common sense, which is so often at variance with philosophy, especially with the sceptical kind, is found, in one instance at least, to agree in pronouncing the same decision.'

This is no doubt a true account of 'blind sentiment' or mere mental taste as understood by Mr. Hume; and he has been so explicit as to make us fully comprehend his intention in committing all moral distinctions to its 'sure and unerring testimony' and arbitrement. Nor is there a particle of essential difference between his doctrine concerning the origin and standard of morality and that of Shaftesbury, Hutcheson, Smith, and Brown. Indeed the last mentioned, says after Hume almost word for word and to the fullest extent of admission. Mr. Stewart, we have seen, classes Hume with Hutcheson and Smith, and the other natural-sentiment moral philosophers in contradistinction to Cudworth and Clarke. He was too prudent himself, however, to pronounce in an unqualified manner for either statement, and therefore attempted a sort of compromise between the two.

It seems sufficiently evident from Mr. Hume's own statement that to make 'blind sentiment' the foundation of moral decisions is in effect to do away with morality altogether. In short there is according to this scheme neither virtue nor vice absolutely, any more than beauty and deformity. 'Sentiment has reference to nothing beyond itself: a thousand different sentiments excited by the same object are all right.' This requires neither comment nor argumentation; and we ought to be as ready as Dr. Reid and 'his illustrious pupil' to eulogise Mr. Hume and acknowledge our great obligations to him; for certainly 'his conclusions do more than compensate his premises.' But for his manner of stating the doctrine of moral sentiment, as inherent in our mental constitution, we might perhaps have been bewildered by verbal ambiguities. And we confess that though the moral-sense or moral-instinct, or moral-sentiment theory of virtue has long appeared a very questionable sort of entity, we never understood it half so well as since we examined it closely in the statements of Mr. Hume.

Considered either ethically or theologically the natural-sentiment theory has nothing to recommend it. Considered philosophically (we mean as if it had nothing to do with religion and morality) it possesses no claim to assent. In truth it appears so unphilosophical that we cannot help wondering it should ever have received the sanction of any analytic reasoners who did not delight like Hume in scepticism and sophistry. Though directly opposed to his theory of utility it was perfectly worthy of his intellectual character. Omnis Aristippum decuit color. That such reasoners as Shaftesbury and Hutcheson should sincerely embrace the notion of innate moral instinct, sense, or sentiment as the only firm foundation of religion and virtue is perfectly intelligible; but how Smith and Brown could satisfy themselves, or attempt to satisfy others with it, is not so obvious. The supposition of a strong anti-revelation bias may perhaps account for the phenomenon. Indeed we know not what mere theistical moral philosophers could do materially different from what the natural-sentiment theorists have attempted, after the manifest failures of Cudworth, Clarke, and Wollaston. And none but the lower class of metaphysicians would attempt such a clumsy kind of compromise or accommodation as that of uniting the two notions of sentiment and reason into one complex theory.

Concerning the question now under consideration we would recommend a careful examination of the doctrines of Hartley; which may be easily dissociated from his vibratory theory; and, when separated from the nonsense about vibrations and vibratiuncles, they will be found to convey no small portion of instruction. In resolving all the mental and moral phenomena into association he reasons much more philosophically than any of those who would stop short at 'blind sentiment' as Hume terms it; and his statements will bear an advantageous comparison or rather contrast with theirs. The following is a specimen:—

'The moral sense or judgment is sometimes considered as an instinct, sometimes as determinations of the mind, grounded on the eternal reasons and relations of things. Those who maintain either of these opinions may, perhaps, explain them so as to be consistent with the foregoing analysis of the moral sense from association. But if by instinct be meant a disposition communicated to the mind so as to be quite independent of association; and by a moral instinct, such a disposition producing in us moral judgments concerning affections and actions; it will be necessary to produce instances where such judgments arise in us independently of prior associations determining thereto.

'In like manner, if by founding the morality of actions, and our judgment concerning this morality, on the eternal reasons and relations of things, be meant, that the reasons drawn from the

relation of things, by which the morality or immorality of certain actions is commonly proved, and which with the relations are called eternal from their appearing the same, or nearly the same, to the mind at all times, would determine the mind to form the corresponding moral judgment independently of prior associations, this ought also to be proved by the allegation of proper instances. To me it appears, that the instances are, as far as we can judge of them, of an opposite nature, and favor the deduction of all our moral judgments, approbations, and disapprobations, from association alone. However some associations are formed so early, repeated so often, rivetted so strong, and have so close a connexion with the common nature of man and the events of life which happen to all, as, in a popular way of speaking, to claim the appellation of original and natural dispositions; and to appear like instincts when compared with dispositions evidently factitious; also like axioms, and intuitive propositions, eternally true according to the usual phrase, when compared with moral reasonings of a compound kind.'

The following is a statement of the question by Paley with that charming simplicity and perspicuity which characterise all his writings.

'They who contend (Moral Philosophy, book 1, chap. 5, The Moral Sense) for a moral sense, say that we approve examples of generosity, gratitude, fidelity, &c., and condemn the contrary instantly without deliberation, without having any interest of our own concerned in them, oft-times without being conscious of, or able to give any reason for our approbation; that this approbation is uniform and universal, the same sorts of conduct being approved or disapproved in all ages and countries of the world; circumstances, say they, which strongly indicate the operation of an instinct or moral sense.

'On the other hand, answers have been given to most of these arguments by the patrons of the opposite system.

'First, as to the uniformity above alleged, they controvert the fact. They remark from authentic accounts of historians and travellers that there is scarcely a single vice which, in some age or country of the world, has not been countenanced by public opinion: that in one country it is esteemed an office of piety in children to sustain their aged parents; in another to despatch them out of the way; that suicide, in one age of the world, has been heroism, in another felony: that theft, which has been punished by most laws, by the laws of Sparta was not unfrequently rewarded; that the promiscous commerce of the sexes, although condemned by the regulations and censures of all civilised nations, is practised by the savages of the tropical regions without reserve, compunction, or disgrace; that crimes, of which it is no longer permitted us even to speak, have had their advocates among the sages of very renowned times; that if an inhabitant of the polished nations of Europe be delighted with the appearance, wherever he meets with it, of happiness, tranquillity and comfort; a wild American is no less diverted with the writhings and contortions of a victim at the stake; that even amongst ourselves, and in the present improved state of moral knowledge, we are far from a perfect consent in our opinions or feelings: that you shall hear duelling alternately reprobated and applauded according to the sex, age, or station of the person you converse with: that the forgiveness of injuries and insults is accounted by one sort of people magnanimity, by another meanness: all which, they observe, looks very little like the steady hand, and indelible characters of nature.'

The natural-sentiment tendency, instinct, or innate principle, moral philosophers, make poor work of all this when they attempt to reconcile it with their theory. Whoever prefers assumption and paralogism to sound reasoning, and rhetorical declamation to sober argument, will find abundance of them in Brown's ethical lectures, though all he contends for is so little worth any contention, either logical or rhetorical, that he might have been as cold and indifferent about the matter, as his philosophic relative Mr. Hume. According to the statements of both, and those of Adam Smith too, we may truly say of vice, what Fontenelle so madly said of female inchastity: if we know it, if we perceive it, it is no great matter; if we do not perceive it, or feel a sentiment of disapprobation, it is nothing. The concluding paragraphs of Paley concerning the moral sense have a depth of import in them which the lovers of powerful language rather than of forcible signification are in danger of missing.

'Upon the whole, it seems to me, either that there exist no such instincts as compose what is called the moral sense, or that they are not now to be distinguished from prejudices (acquired sentiments) and habits; on which account they cannot be depended upon in moral reasoning: I mean, that it is not a safe way of arguing, to assume certain principles as so many dictates, impulses, and instincts of nature, and then to draw conclusions from these principles, as to the rectitude or wrongness of actions independent of the tendency of such actions, or of any other consideration whatever. * * * For which reason I suspect that a system of morality, built upon instincts, will only find out reasons and excuses for opinions and practices already established, and will seldom correct or reform either.

'But further, suppose we admit the existence of these instincts, what it may be asked is their authority? No man, you say, can act in deliberate opposition to them without a secret remorse of conscience. But this remorse may be borne with: and if the sinner choose to bear with it for the sake of the pleasure or profit which he expects from his wickedness; or finds the pleasure of the sin to exceed the remorse of conscience, of which he alone is the judge, and concerning which, when he feels them both together, he can hardly be mistaken, the moral-instinct man, so far as I can understand, has nothing more to offer. For if he allege that these instincts are so many indications of the will of God, and consequently presages of what we are to look for hereafter; this I answer is to resort to a rule and motive ulterior to the instincts themselves, and at which rule and motive we shall by and by arrive by a surer road: I say surer, so long as there remains a controversy whe-

ther there be any instinctive maxims at all; or any difficulty in ascertaining what maxims are instinctive.'

We thought it right to give the natural-sentiment theory of morals a further hearing when obtruded upon us by Mr. Hume; but we must now return to the position taken up by him though he was pleased to abandon it, and conclude his famous essay, 'incomparably the best he ever wrote,' according to his own account, by resolving the whole of virtue and vice into sentiment or taste and not into utility. It is obvious at first view that the theory of utility and that of blind sentiment are neither identical nor compatible with one another. What Mr. Hume therefore advances for the one, if the other be admitted, is to be regarded as so much mere philosophic flourish; or rather what he advances concerning first the one and then the other is to be considered as so much moot argumentation, as a display of logical subtlety and dexterity. So far, therefore, as Hume, and such as resemble him, are concerned, this theory of utility is as little worthy of serious refutation as that by which he himself supplanted it. But there are moral reasoners of a better description who make much mention of the principle which he only brought forward, to have the pleasure of deserting it. However fickle and inconstant he might be in his speculations, and theoretic attachments, they are sincere and true lovers of utility; and, whatever common relation as philosophers Mr. Hume and Mr. Bentham may have to Epicurus, our moral sentiment is not so blind as not to discriminate between them and prefer the one to the other. We may regret the absence of what we deem essentially necessary in moral reasonings; but we admire sincere logic and ardent philanthropy as much as we despise a vain and heartless sophistry.

The theory of utility is very good in certain respects, and to a certain extent. Indeed there is a show of evidence about it which we look for in vain in the natural-sentiment hypothesis; and the only wonder is (if indeed we can wonder at any thing of the kind) that Mr. Hume did not resolve all moral sentiment into utility and there leave the matter; for that the former should be generated by the latter is perfectly intelligible. Nor is any other account of what he and Smith and Brown mean by moral sentiment either intelligible or plausible. It must be either instinctive or acquired. That it is not instinctive there is every kind and form and degree of evidence that the case admits of. It must, therefore, be acquired, for there is no other conceivable way in which it can exist at all. Nor have the whole race of moral-instinct or natural-sentiment moral philosophers ever yet advanced any thing in support of their theory but gratuitous assumption and resolute assertion.

As fully accounting for all that they really mean by sentiment, as the origin and standard of moral distinctions, we consider the reasonings of Mr. Hume concerning utility not only perfectly satisfactory but absolutely unanswerable. Nor is this sentiment though acquired (so far as it is worth any thing) less a law of God written on the heart than if it were innate. For if he has constituted the world, that certain dispositions and actions are found by universal experience to be good and profitable to men, and their opposites to be bad or mischievous, the judgment or sentiment corresponding to them implanted in the mind is just as really derived from, and referrible to him as if it were instinctive, according to Hutcheson's notion, or as if it were brought with the soul out of a pre-existent state, according to the notion of Plato. On the supposition that the moral sense or sentiment is not innate but implanted; not derived from within but from without; not born with man but generated in him after his birth, all the fine things that have been said by Cicero and others will hold good, and be just as pregnant with meaning and importance, as on the other supposition of inherent moral tendency prior to association or the formation of mental character.

'It cannot be denied (Paley's Moral Philosophy, book i. chap. 5,) that some sorts of actions command and receive the esteem of mankind more than others; and that the approbation of them is general. This may be accounted for without the assistance of a moral sense. Having experienced a particular conduct to be beneficial to ourselves, or observed that it would be so, a sentiment of approbation rises up in our minds; which sentiment afterwards accompanies the idea or mention of the same conduct, although the private advantage which first excited it no longer exists. And this continuance of the passion, after the reason of it has ceased, is nothing more than what happens in other cases. * * * By these means the custom of approving certain actions commenced: and, when once such a custom has got footing in the world, it is no difficult thing to explain how it is transmitted and continued; for then the greatest part of those who approve of virtue, approve of it from authority, by imitation, and from a habit of approving such and such actions, inculcated in early youth, and receiving as men grow up the continual accessions of strength and vigor, from censure and encouragement, from the books they read, the conversations they hear, the current application of epithets, the general turn of language, and the various other causes by which it universally comes to pass, that a society of men, touched in the feeblest degree with the same passion, soon communicate to one another a great degree of it. This is the case with most of us at present; and is the cause also that the process of association is little now either perceived or wanted.

'Amongst the causes assigned for the continuance and diffusion of the same moral sentiments among mankind we have mentioned imitation. The efficacy of this principle is most observable in children: indeed, if there be any thing in them which deserves the name of an instinct, it is their propensity to imitation. Now there is nothing which children imitate or apply more readily than expressions of affection and aversion, approbation, hatred, resentment, and the like; and when their passions and expressions are once connected, which they soon will be by the same association which unites words with their ideas, the passion will follow the expression, and attach upon the object to which the child has been accustomed to apply the epithet. In a word, when

almost every thing else is learned by imitation, can we wonder to find the same cause concerned in the generation of our moral sentiments?'

This is the only account of the matter that appears to us satisfactory, or even intelligible. Of course it resolves the moral sentiment of Shaftesbury and his followers into utility, taken according to Hume's theory. As amounting therefore to all the ethical certainty and import really contended for by them, that theory is, we conceive, as firm and impregnable as any thing of the kind can possibly be. It is an easy task to call it the selfish system of morals, and declaim against it with much rhetorical effect; but how is it to be overturned? Not surely by mere assumption and assertion, however much varied, and combined, and reiterated. Not by taking it for granted that the moral sentiment is an original instinct or determination of the mental constitution for which no reason can be assigned, and that it is so because it is so? Taking it then for what it is really worth as a philosophic exposition of the kind of moral sentiment which has universally prevailed, without any reference to divine communication or influence, we consider the theory of utility as the only one propounded that possesses any evidence of truth.

Before we examine this theory more closely, it is proper to remark that, in human legislation, utility must be considered as the guiding principle. Mr. Bentham and his disciples do well to shape their courses on the ocean of jurisprudence by this polar star; and we hope they will make many valuable discoveries. We only wish that they had more hopeful materials than human beings and human societies for their jurisprudential wisdom to operate upon. If their utilitarianism were purely political, and if they would be perfectly neutrologistic as to religion and irreligion, we would hail them as sage and philanthropic jurisconsults. But neutrologism in such matters is hardly practicable, and we expect no good from principles and reasonings which have any affinity or affiance with atheism.

Having admitted the theory of utility propounded by Mr. Hume, as much more satisfactory than the natural-sentiment or moral-sense-theory it will be said this is making almost nothing of moral distinctions—it is placing them on a very uncertain foundation. Granted; but we do not mend the matter by adopting the other hypothesis; for what can be less certain than blind sentiment or mere taste? What can possibly amount to less ethical import or avail than the doctrines of Hutcheson, Smith, and Brown? But, though the theory of utility be admitted as accounting for the moral sentiment which has generally existed among mankind, it does not account for all the moral principle that has existed; and still less can it be considered as the only possible origin and standard of morals. Much of what Mr. Hume would resolve into utility or into sentiment is referrible to a much higher origin, though he chose to keep it out of view; but that which he and most of the other moral philosophers, would seem to discard, as of little or no account, is the only sure foundation on which any ethical structure of much importance can rest. In this connexion his own remarks on the difference between Homer and Fenelon as to moral sentiment may be fitly introduced.

'In all questions (Essay xxiii. Of the Standard of Taste) which regard conduct and manners, the difference among men is greater than at first sight it appears. It is indeed obvious, that writers of all nations and all ages concur in applauding justice, humanity, magnanimity, prudence, veracity; and in blaming the opposite qualities. Even poets and other authors, whose compositions are chiefly calculated to please the imagination, are yet found, from Homer down to Fenelon, to inculcate the same moral precepts, and to bestow their applause and blame on the same virtues and vices * * * but it is obvious that when Homer draws particular pictures of manners, and represents heroism in Achilles, and prudence in Ulysses, he intermixes a much greater degree of ferocity in the former, and of cunning and fraud in the latter, than Fenelon would admit of. The sage Ulysses in the Greek poet seems to delight in lies and fictions, and often employs them without any necessity or advantage: but his more scrupulous son, in the French epic writer, exposes himself to the most imminent perils, rather than depart from the most exact line of truth and veracity.'

A very just discrimination between Homer and Fenelon as to their moral sentiment or notions of virtue and vice; but whence the difference? Why was the son of Ulysses in the French epic writer more scrupulous about truth and falsehood than his lying father, as drawn by Homer? Was it not that which made the amiable Joseph so scrupulously virtuous when he exclaimed with all the force of conscientious purpose and pious emotion, 'How can I do this great wickedness, and sin against God?'

The plain case is, that a moral system of sentiment derived from utility; that is, growing up out of the praise and blame which men by general consent award to virtue and vice on account of the beneficial operation of the one, and mischievous operation of the other, though better than no moral system, and absolutely necessary to social existence, and though sufficient to account for much of what passes as virtue in the world, yet is of a very defective and inefficient nature, when considered in reference to what is wanted, and what true religion produces. But what would be the consequence if all men, or even the majority of them, were to theorise concerning ethics in the manner of Hume by ascribing all moral distinctions and obligations to utility, or what is if possible yet worse, by resolving them into sentiment or taste? Would they not adopt the very maxims which he has deduced from his own doctrines? Such as the following:—'That honesty is the best policy, though a good general rule is liable to many exceptions; and that he conducts himself with most wisdom who observes the general rule and *takes advantage of all the exceptions.*'*

* Our recent wholesale robbers of banks and bank-parcels, seem to us to offer a fair exemplification of this rule. With them 'honesty is the best policy'

The only other system of moral philosophy which we will examine is that of Paley; and we approach it with mingled feelings of pleasure and regret; for in some respects it is admirable, in others, and these the most essential, it is any thing but what could be wished. The simplicity of Paley's statements and reasonings is almost inimitable. Nothing can be more unscholastic, plain, perspicuous, and perfectly free from pomp and pedantry. The nearest to Paley's style in this respect are the best parts of Locke's, Hartley's, and Franklin's writing; though we think he excels even Franklin in vernacular plainness and homely simplicity. Nothing from the pen of Paley seems to smell either of the lamp or the library; all is as fresh and sweet as if it had been composed on the bank of a clear stream, by the side of Isaac Walton. No man who owed so much to books ever had more of the happy art of losing sight of them when he set about making new ones. The manner is all his own; in this he is original, and his originality is not only beautiful, but often striking and truly graphic. The following will match in expression any of the sketches of Mandeville:—'If you shall see a flock of pigeons in a field of corn; and if (instead of each picking where and what it liked, taking just as much as it wanted, and no more) you should see ninety-nine of them gathering all they got into a heap; reserving nothing for themselves but the chaff and the refuse; keeping this heap for one, and that the weakest, perhaps worst, pigeon of the flock; sitting round, and looking on all the winter, whilst this one was devouring, throwing about, and wasting it; and if a pigeon more hardy or hungry than the rest, touched a grain of the hoard, all the others instantly flying upon it, and tearing it to pieces; if you should see this, you would see nothing more than what is every day practised and established among men. Among men you see the ninety and nine toiling and scraping together a heap of superfluities for one (and this one too, oftentimes the feeblest and worst of the whole set—a child, a woman, a madman, or a fool); getting nothing for themselves all the while, but a little of the coarsest of the provision, which their own industry produces; looking quietly on whilst they see the fruits of all their labor spent or spoiled: and, if one of the number take or touch a particle of the hoard, the others joining against him, and hanging him for the theft.' The first paragraph of book 3, chap. I. Of Property.

In addition to the charming simplicity, the practical character of Paley's writings deserves the highest praise. They are not only level to the humblest capacity, but directly applicable to real life, and available for useful purposes. The best chapter in the work, in our judgment, is the sixth of the first book, concerning Human Happiness; and, as it is the most excellent, it is the most original, and characteristic of the author. We would have persons of all ranks and conditions and ages read and inwardly digest it; and the young ought to get it by heart. We have already quoted part of it, and we transcribe one small specimen more, merely for the sake of its expressive representation of the author's mental character: He wrote directly from his own reflections and experience, and therefore, with all the unreserve and frankness imaginable, threw a piece of preferment into the enumeration.

'Engagement is every thing: the more significant, however, our engagements are, the better: such as the planning of laws, institutions, manufactures, charities, improvements, public works, and the endeavouring by our interest, address, solicitations, and activity, to carry them into effect; or, upon a smaller scale, the procuring of a maintenance and fortune for our families by a course of industry and application to our callings, which forms and gives motion to the common occupations of life; training up a child, prosecuting a scheme for his future establishment, making ourselves masters of a language or a science, improving or managing an estate, laboring after a piece of preferment, and lastly, any engagement which is innocent is better than none; as the writing of a book, the building of a house, the laying out of a garden, the digging of a fish pond; even the raising of a cucumber or tulip.'

The rich especially should study this chapter, and all who have not been already cured of the error of supposing that idleness is conducive to happiness, or even compatible with it. For how many in spite of experience, observation, and reflection, drag on a miserable existence under the malady which the French call ennui; and for which most of them have no better antidote than frivolity or amusement. We hope the reader will turn to the quotation already made from this inimitable chapter of Paley in connexion with the statement of the doctrines of Epicurus concerning happiness. The remark respecting religion is in particular most important.

For plainness and practicalness, then, the ethical work of Paley possesses the highest merit, and stands unrivalled. It is entitled to very high praise of another kind; for Paley is almost the only ethical writer of any eminence, in recent times, who has professed to connect morals with religion, and to give a system of moral philosophy on Christian principles. Whilst the lectures and treatises of the moral-instinct or natural-sentiment philosophers are almost as heathenish as if they had been composed at Pekin, or written by Epicurus or Chrysippus; the work of Paley is at least professedly Chris-

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generally; they take and honestly pay for their places in the mail, not forgetting even a kind gratuity, we suppose, to guard and coachman: live in free and easy stile at certain taverns and coffee-houses, but are more punctual in their payments than many, perhaps most, of the gentlemanly frequenters of those establishments: and 'all, all honorable men,' with the whole tribe of guests, masters, boots, chamber-maids, &c. &c. They are only skilful in ascertaining where sovereigns or bank-notes may be found by *tens* of thousands; and disdaining to filch the 'trash' of the purses of ordinary mortals, 'most wise' in *taking advantage* of these unquestionable 'exceptions.' ED.

tian, and makes several appeals to the sacred scriptures. His remarks in this connexion are so just as to merit transcription.

'As the will of God is our rule (book ii. chap. 4); to enquire what is duty, or what we are obliged to do, in any instance, is, in effect, to enquire what is the will of God, which consequently becomes the whole business of morality. * * * Mr. Hume, in his fourth Appendix to his Principles of Morals, has been pleased to complain of the modern scheme of uniting ethics with the Christian theology. They who find themselves disposed to join in this complaint, will do well to observe what Mr. Hume himself has been able to make of religion without this union. And, for that purpose, let them read the second part of the ninth section of the above essay, which part contains the practical application of the whole treatise—a treatise which Mr. Hume declares to be 'incomparably the best he ever wrote.' When they have read it over, let them consider whether any motives there proposed are likely to be found sufficient to withhold men from the gratification of lust, revenge, envy, ambition, avarice, or to prevent the existence of these passions, unless they rise up from this celebrated essay with stronger impressions upon their minds than it ever left upon mine, they will acknowledge the necessity of additional sanctions. But the necessity of these sanctions is not now the question. If they be in fact established; if the rewards and punishments held forth in the Gospel will actually come to pass, they must be considered. Such as reject the Christian religion are to make the best shift they can to build up a system, and lay the foundation of morality, without it. But it appears to me a great inconsistency in those who receive Christianity, and expect something to come of it, to endeavour to keep all such expectations out of sight in their reasonings concerning human duty.'

Doubtless there is a glaring inconsistency in such moral philosophers, and there is an equal inconsistency in universities professedly Christian having any but professedly Christian moral professors. The moral chair ought in consistency either to be filled with a Christian lecturer or abolished; and the last would perhaps be the best measure, and we feel quite sure it would occasion no serious loss. The moral-instinct or natural-sentiment theory of morals is admirably calculated to save appearances, and this we suspect is its main recommendation to its advocates; for, upon this hypothesis, a Hume, a Smith, or a Brown, is as eligible to the moral chair as Dr. Chalmers. The veriest sceptic or atheist may appear as orthodox and as zealous for virtue, and even natural religion, as any of them. It is worthy of remark, that Dr. Paley not only opposes the moral-sense notion, but as decidedly connects his moral philosophy with divine revelation, and professedly founds his system of ethics on the will of God.

We sincerely wish that we could extend our praise of his work farther; but here we are constrained to stop. Much as we approve and admire most of his writings, Paley was not well qualified for moral philosophy, either intellectually or ethically considered. He cannot be considered as a profound metaphysician. He wanted depth and comprehension, and was very deficient in the necessary quality of analysation. He was both acute and discriminative in a certain way, and could select judiciously from the mass of materials created to his hand by more original and more powerful thinkers; but the secondary excellencies of intellect can never compensate for the absence of the primary ones in philosophic discussions. His biographer has told us that Paley was never a hard student, but the information might have been spared; it is sufficiently impressed on all the author's productions; and on none of them more than his Moral Philosophy. It every where convinces as fully as if Paley himself had told us that he was determined to be easy, and not worry his mind, or rack his brain about the matter. His conclusion of the chapter on the moral sense amused us, as remarkably coincident with the manner of Mr. Stewart, when retreating from before some metaphysical question of much difficulty. This celebrated question, therefore, becomes in our system a question of pure curiosity; and as such we dismiss it to the determination of those who are more inquisitive than we are concerned to be, about the natural history and constitution of the human species. This was his own; the arguments with which he so successfully combated the moral sense were all borrowed.

Owing to what has been just indicated, the defects of Paley's work are of a deep and radical nature; and yet probably if it had been freer from such defects, and more sound, self-consistent, and logically entire, it would have been less popular. The logical discrepancies we allude to would seem to be, to the multitude of readers, like discords skilfully introduced to the lovers of music, or rather, perhaps, they are too deep to be perceived by such as are still more superficial than the author himself; and in the case before us this is not to be wondered at, when there is so much that is plausible, and when the manner of the whole is agreeable and charming. But the duty imposed upon us is the ungrateful one of dissection; and though we have admitted all the charms and beauties of Paley's moral philosophy, and that it abounds with excellent remarks, yet the radical errors are such as to vitiate the whole considered as a system; indeed, as will presently appear, it is not one system, but two or more, jumbled together. There is no unity of design or execution; no mutual affinity or coherency among the different parts; and, what is still worse, the principles intended to support and bind the whole are essentially faulty. Much of this is referrible to an intellectual origin, or metaphysical defect in the author; but we are sorry to say that much of the evil is ascribable to a deficiency of the moral and religious sense, if we may thus for once express it; so far from being prepared conscientiously to pronounce, with Dr. Carpenter, the Moral Philosophy of Paley a useful work, we are constrained to say that we think it of a very mischievous tendency, so far as it has any actual influence. Not that we are alarmists; for we know how very powerless moral systems are, and what very little influence they have upon human minds and

human conduct. But the tendency of the work in question is, in our humble opinion, manifestly bad. The doctrines of the author concerning the connexion of religion and virtue are as erroneous, we opine, as they can well be; and, concerning morality in general, as lax as almost any libertine could wish.

Take, for example, his chapter on Subscription to Articles of Religion, or that on lies, and we may as well begin at the end, or in the middle, as at the beginning. What can be more jesuitical or more latitudinarian than his statements? Proceeding on the principle of utility (like Hume, from whom indeed he borrowed it) as the basis or origin and standard of morals, he thus defines, and then argues:—'A lie is a breach of promise; for whoever seriously addresses his discourse to another tacitly promises to speak the truth, because he knows the truth is expected.' This was not of his own inventing, but it will match in sophistry any legal or casuistical fiction ever invented. Not feeling sure of his lame principle, he provides two crutches for it—'Or,' he adds, 'the obligation to veracity may be made out from the direct ill consequences of lying to social happiness. Which consequences consist, either in some specific injury to particular individuals, or in the destruction of that confidence which is essential to the intercourse of human life; for which latter reason a lie may be pernicious in its general tendency, and therefore criminal, though it produces no particular or visible mischief to any one.' Such are the definitions and positions, now for the deductions, or demonstrations, and corollaries—'There are falsehoods which are not lies (this is surely too bad, or too barefaced); that is, which are not criminal; as,

1. 'Where no one is deceived; which is the case where the declared design of the speaker is not to inform, but to divert; compliments in the subscription of a letter, a servant's denying his master, a prisoner's pleading not guilty, an advocate asserting the justice, or his belief of the justice, of his client's cause. In such instances, no confidence is destroyed, because none was reposed; no promise to speak the truth is violated, because none was given or understood to be given.

2. 'Where the person to whom you speak has no right to know the truth; or, more properly, where little or no inconveniency results from the want of such confidence in such cases; as where you tell a falsehood to a madman for his own advantage; to a robber to conceal your property; to an assassin to defeat or divert him from his purpose. The particular consequence is by the supposition beneficial; and, as to the general consequence, the worst that can happen is, that the madman, the robber, the assassin, will not trust you again, which is sufficiently compensated by the immediate benefit which you propose by the falsehood.

'It is on this principle, that, by the laws of war, it is allowed to deceive an enemy by feints, false colors, spies, false intelligence, and the like.'

This is no doubt the genuine doctrine of Hume, and of his theory of utility, when followed up or carried out to its full extent. And it is well to have it presented in all its aspects and bearings without disguise or concealment in the simple and graphic statements of Paley, as well as in the subtle but reckless reasonings of Hume. Such is the morality of Paley (who is reported to have said that he could not afford to keep a conscience), and such is the morality of the world; but is it like the morality of the Gospel? The question is a kind of indignity offered to the purity of that moral excellence which is from above. Epicurus could teach as good morality as this moral philosopher, though professedly Christian. Jeremy Bentham, staunch utilitarian as he is, would reprobate at least some parts of this doctrine; and he has borne his enlightened and honest testimony against the legal wickedness, or pernicious perversity, of compelling a criminal, conscious of guilt, to add to all his other guilt that of denying it in the face of his judge and jury, and the whole court, and pleading not guilty. There have been some painful cases lately of burdened and scrupulous consciences in culprits undergoing much varied treatment from the court to bring them to conformity with a perverse rule to take their trial; and it is to be hoped that what is more honored in the breach than in the observance will be abolished at no great distance of time. It gave us unfeigned pleasure to hear one of the first ministers of the crown declare in full parliament, respecting one of those abuses of words, commonly called 'law-technicalities and legal fictions,' that he wished to set an example of respect for the import of terms to the inferior courts. It is desirable to have in some statesmen, more intellectual and moral rectitude than we find in such moral philosophers as Paley and his compeers; and most afflicting, to a mind of correct feeling, to witness a moral teacher delivering such doctrines, as if he were not only ignorant or indifferent respecting their bearings and tendencies, but as utterly unconscious as a Machiavel of their reproachful nature.

The system of Paley is so loose and discordant, the parts composing it are so miscellaneous and heterogeneous, there is so little of unity and identity about the whole, that there is some difficulty in attempting to analyse it, or in finding a proper beginning for the purpose. The most favorable opening seems to be presented at his statement concerning the will of God. 'The will of God is our rule,' he writes, 'which consequently becomes the whole business of morality Now there are two methods of coming at the will of God on any point:—

1. 'By his express declarations, when they are to be had and which must be sought for in Scripture.

2. 'By what we can discover of his designs and dispositions from his works; or, as we usually call it, the light of nature.'

This is not exactly the light in which the light of nature is usually presented. But the difference is too obvious to require indication; nor is it of much importance as to any theoretical or practical purpose. Paley's light of nature is certainly a simpler, more intelligible, and more tangible sort of entity than what is usually called by the same name.

'And here,' continues our author, 'we may observe the absurdity of separating natural and revealed religion from each other. The object of both is the same, to discover the will of God; and, provided we do but discover it, it matters nothing by what means.' What a convenient and pleasant kind of logic this is! How enviable the mental conformation that can use it with perfect satisfaction! It makes the most difficult matters smooth and easy without any trouble. But we know not what the author means exactly by the terms he employs, or how they can stand consistently with any distinct meaning in the connexions or relations in which he has placed them. The will of God, we had supposed to be rather the origin and standard, or the foundation of religion than its object. How religion can exist apart from the will of God, as the eye apart from the object at which it looks, or is employed to discover, we cannot imagine. However this also is of no great importance; we can at least form a rough guess what the archdeacon meant to express if he had been endowed with a little more of metaphysical acumen and logical accuracy. Whether right or wrong, we have his meaning more explicitly in the following paragraph:—

'The method of coming at the will of God, concerning any action, by the light of nature, is to enquire into the tendency of the action to promote or diminish the general happiness. This rule proceeds upon the presumption that God Almighty wills and wishes the happiness of his creatures; and, consequently, that those actions which promote that will and wish must be agreeable to him; and the contrary.

'As this presumption is the foundation of our whole system, it becomes necessary to explain the reasons upon which it rests.'

Then follow a few loose remarks headed Chapter 5, The Divine Benevolence; such as the following:—'The contemplation of universal nature rather bewilders the mind than affects it. There is always a bright spot in the prospect, upon which the eye rests; a single example perhaps by which each man finds himself more convinced than by all others put together.' The instance that pleased the author best, and seemed most effectually to establish the presumption which he made the foundation of his whole system, was a child at its sport. 'But the example,' he adds, 'which strikes each man most strongly is the true example for him: and hardly two minds hit upon the same; which shows the abundance of such examples about us.' We really know not which of all Paley's kinds of simplicity we ought most to admire. The conclusion of the whole ceremony of proving the presumption, and laying the foundation, is as follows:—'We conclude, therefore, that God wills and wishes the happiness of his creatures. And, this conclusion being once established, we are at liberty to go on with the rule built upon it.' It is not usual to build rules on foundations,—but this is nothing. Next follows, as in reason ought, Chapter 6, Utility; which dashes boldly off with the doctrine of Hume and Epicurus.

'So then actions are to be estimated by their tendency. Whatever is expedient is right It is the utility of any moral rule alone which constitutes the obligation of it.'

This is as dexterous a method of cheating atheism out of the moral doctrine of utility to give it to natural religion as can well be imagined. What is essentially bad, however, is not so very transmutable as to be converted into much good by mere slight of hand operations; and we refer the reader to the author's chapter on lies, for proof, what a rogue in grain the doctrine of utility is, whether found under the patronage of Hume, or in the service of archdeacon Paley. It is not necessary to say more. The statements and distinctions of Paley, for the purpose of giving it a written character, are just sufficiently plausible to impose upon such as are incapable of analysis, or who will not be at the trouble to search below the surface. If mere phraseology, or verbal but unreal distinctions, could reconcile contrarieties into perfect affinity and immutable union, or change the very essence of things so as to make evil good, then might such attempts as the following, to justify the doctrine of utility, amount to something more than the mere saving of appearances.

'Actions in the abstract are right or wrong, according to their tendency; the agent is virtuous or vicious, according to his design. * * * It is evident that our concern is with actions in the abstract.' 'There are occasions in which the hand of the assassin would be very useful. The present possessor of some great estate employs his influence and fortune to annoy, corrupt, or oppress all about him. His estate would devolve by his death to a successor of an opposite character. It is useful therefore to despatch such a one out of the way as soon as possible; as the neighbourhood will thereby exchange a pernicious tyrant for a wise and generous benefactor. It might be useful to rob a miser and give the money to the poor. It may be useful to get possession of a place, a piece of preferment, or of a seat in parliament, by bribery or false swearing. * * * Must we admit these actions to be right, which would be to justify assassination, plunder, and perjury; or must we give up our principle that the criterion of right is utility? It is not necessary to do either. The true answer is this; that these actions after all are not useful, and for that reason, and that alone, are not right. To see this point perfectly it must be observed that the bad consequences of actions are twofold, particular and general. The particular bad consequence of an action is the mischief which that single action directly and immediately occasions. The general bad consequence is the violation of some necessary or general rule.'

This sort of reasoning would no doubt convince and satisfy a great many; and Paley was sufficiently subtle to have made a good lawyer, and no bad casuist among the Jesuists. He has really done as much for utility to make it out to be a good, sure, and safe moral principle, as any advocate could well do for a bad client; and, if he had not committed himself so palpably in some parts of his special pleading, particularly in trying to make black lies appear white ones, we should have thought it necessary to strip off the mask of plausibility from his subtle distinctions

about particular and general consequences, and abstract and concrete actions. To do this as fully and effectually as we could wish would require more space than can be now allotted to the purpose. We refer the reader to that part of Dr. Brown's ethical lectures which discusses the question of actions as absolutely and relatively considered, and whether they can be both right and wrong, according to a supposed difference which no where exists but in verbal ambiguities. On this question, which goes much deeper than Paley's sophistry, Dr. Brown will be found in full possession of that logical and analytic mastery which he always displays when combating false theories and reasonings.

It would be a comparatively easy task to show that the general superstructure of Paley's moral philosophy is as faulty as the presumption upon which the whole is constructed. But we must now hasten to a brief notice of the theological part or parcel (for we know not well what to call it) of his work. Here he is, if possible, still wider of the mark, and proves himself to be as defective a theologian as metaphysician. Indeed it is difficult to conceive how a clergyman, however destitute of an experimental acquaintance with divine truth, could be so theoretically ignorant of it as to write in the manner he has done. He adopts the strangely absurd (in every view) definition of virtue, given in Gay's Preliminary Dissertations. 'Virtue is the doing good to mankind, in obedience to the will of God, and for the sake of everlasting happiness.' This combines the two opposite faults of being at once deficient and redundant; and, what is still worse, it is as unsound and as directly opposed to the revealed will of God as can well be imagined. Not only is there nothing to warrant the principle of the definition in the sacred scriptures, but it is remarkably at variance with their general import; and directly contrary to the gospel or doctrines of Christ and his apostles. It is in fact the very principle which, above all others, they strenuously opposed, and which they insisted, upon the authority of God, must be renounced to receive eternal life, or everlasting happiness, as the gift of God through Jesus Christ.

Paley's principle of virtue is decidedly antiscriptural, and it is as manifestly selfish. In this last view Dr. Brown combats it with great force of argument, though his arguments are in some respects vitiated by an error of another kind,—the assumption of the natural-sentiment principle of morality, or, in other words, that human nature is naturally virtuous, and that this natural and necessary tendency of the human mind is the only possible origin and standard of virtue. We give the following quotations from his lectures in opposition to the doctrine of Paley:—

'After these two lights in which the system (as presented by Mandeville and Hume) commonly distinguished by the name of the selfish system of morals, has been considered by us, there remains still one other light in which it is to be viewed, that in which the obligation of virtue is supposed to consist merely in an exclusive regard to our own individual eternity of happiness in another life; and virtue itself to consist in obedience to the will of the Supreme Being; not on account of the moral excellence of that Supreme Being, or of his bounty to us, which might seem of itself to demand compliances that are the only possible expressions of the gratitude of dependent creatures to him from whom their power, as well as their happiness, is derived, but without any such views of reverence or gratitude, merely on account of the power which the ruler of the universe possesses, to give or withhold the happiness which is our only object. This form of the selfish system, which has been embraced by many theological writers of undoubted piety and purity, is notwithstanding, I cannot but think, as degrading as any other form of the doctrine of absolute selfishness; or rather it is in itself the most degrading of all the forms which the selfish system can assume; because, while the selfishness which it maintains is as absolute and unremitting as if the objects of personal gain were to be found in the wealth or honors, or sensual pleasures, of this earth: this very selfishness is rendered more offensive by the noble image of the Deity which is continually presented to our mind, and presented in all his benevolence, not to be loved, but to be courted with a mockery of affection.

'The doctrine of the absolute selfishness of our homage to God, and of our social virtues, considered as the mere conformity of our wills to the mere command of Him who is the dispenser of eternal happiness and eternal misery, for the sole reason of his power of thus dispensing happiness or misery, and not on account of his own transcendant excellence that of itself might seem to demand such a conformity, is a doctrine of very old date. But the writer who, in modern times, has led to the widest diffusion of this doctrine is archdeacon Paley, the most popular of all our ethical writers; and one of the most judicious in the mere details of ethics, however false and dangerous I consider his leading doctrines to be. Virtue he defines to be the doing good to mankind in obedience to the will of God and for the sake of everlasting happiness. The last part of the definition is the most important part of the whole; for the knowledge of this everlasting happiness he supposes to be all which constitutes moral obligation; meaning by obligation the influence of happiness as an object of physical desire, and of pain as an object of physical aversion; one or other of which is to follow our obedience or disobedience to the command of the power who is the supreme dispenser of both. The will of God is our rule, he says, but 'private happiness is our motive,' and therefore our obligation. * * * The doctrine of Paley differs, as you perceive, from the general selfish system only by the peculiar importance which it very justly gives to everlasting happiness and misery when compared with the brief pains or pleasures of this life. In the scale of selfish gain it is a greater quantity of physical enjoyment which it has in view. It is a sager selfishness, but it is not less absolute selfishness, which it maintains; and it is therefore subject to all the objections which I urged before at great length. An obvious answer presents itself to all

those selfish systems which convert the whole of virtue into prudence; and make the difference of virtue and vice in every respect precisely the same in kind as those of speculations in the market of commerce, who have employed their capital more or less advantageously in the different bargains that have been offered to them.'

In perfect consistency with the definition adopted by Paley we find him making such strange and anti-evangelical remarks as the following:—'The Christian religion hath not ascertained the precise quantity of virtue necessary to salvation.' 'That a state of happiness is not to be expected by those who are conscious of no moral or religious rule: I mean those who cannot with truth say that they have been prompted to one action, or withholden from one gratification, by any regard to virtue or religion either immediate or habitual.' But it would be superfluous to animadvert more particularly on this work; which, notwithstanding all the good remarks it contains, and the beautiful simplicity which pervades the whole, is as abortive a performance philosophically considered, as it is objectionable theologically and ethically.

Our strong objections to Dr. Paley's doctrine of general consequences are so happily and eloquently confirmed by Mr. Coleridge, in a number of his much neglected work The Friend, that the reader we are sure, and we trust the able author, will pardon an ample quotation from it.

'Much and often have I suffered from having ventured to avow my doubts concerning the truth of certain opinions, which had been sanctified in the minds of my hearers, by the authority of some reigning great name: even though, in addition to my own reasons, I had all the greatest names from the Reformation to the Revolution on my side. I could not, therefore, summon courage, without some previous pioneering, to declare publicly, that the principles of morality taught in the present work will be in direct opposition to the system of the late Dr. Paley. This confession I should have deferred to a future time, if my opinion on the grounds of international morality had not been contradictory to a fundamental point in Paley's System of moral and political Philosophy. I mean that chapter which treats of general consequences, as the chief and best criterion of the right or wrong of particular actions. Now this doctrine I conceive to be neither tenable in reason nor safe in practice: and the following are the grounds of my opinion.

'First: this criterion is purely ideal, and so far possesses no advantage over the former systems of morality: while it labors under defects, with which those are not justly chargeable. It is ideal; for it depends on, and must vary with, the notions of the individual, who, in order to determine the nature of an action, is to make the calculation of its general consequences. Here, as in all other calculations, the result depends on that faculty of the soul in the degrees of which men most vary from each other, and which is itself most affected by accidental advantages or disadvantages of education, natural talent, and acquired knowledge—the faculty, I mean, of foresight and systematic comprehension. But surely morality, which is of equal importance to all men, ought to be grounded, if possible, in that part of our nature which in all men may and ought to be the same: in the conscience and the common sense.

'Secondly: this criterion confounds morality with law; and when the author adds, that in all probability the divine justice will be regulated in the final judgment by a similar rule, he draws away the attention from the will, that is, from the inward motives and impulses which constitute the essence of morality, to the outward act: and thus changes the virtue commanded by the gospel into the mere legality which was to be enlivened by it. One of the most persuasive, if not one of the strongest, arguments for a future state, rests on the belief, that although by the necessity of things our outward and temporal welfare must be regulated by our outward actions, which alone can be the objects and guides of human law, there must yet needs come a juster and more appropriate sentence hereafter, in which our intentions will be considered, and our happiness and misery made to accord with the grounds of our actions. Our fellow-creatures can only judge what we are by what we do; but in the eye of our Maker what we do is of no worth, except as it flows from what we are. Though the fig-tree should produce no visible fruit, yet if the living sap is in it, and if it has struggled to put forth buds and blossoms which have been prevented from maturing by inevitable contingencies of tempests or untimely frosts, the virtuous sap will be accounted as fruit: and the curse of barrenness will light on many a tree, from the boughs of which hundreds have been satisfied, because the omniscient Judge knows that the fruits were threaded to the boughs artificially by the outward working of base fear and selfish hopes, and were neither nourished by the love of God or of man, nor grew out of the graces engrafted on the stock by religion.

'I return to the question of general consequences, considered as the criterion of moral actions. The admirer of Paley's System is required to suspend for a short time the objection, which, I doubt not, he has already made, that general consequences are stated by Paley as the criterion of the action, not of the agent. I will endeavour to satisfy him on this point, when I have completed my present chain of argument. It has been shown that this criterion is no less ideal than that of any former system: that is, it is no less incapable of receiving any external experimental proof, compulsory on the understandings of all men, such as the criteria exhibited in chemistry. Yet, unlike the elder systems of morality, it remains in the world of the senses, without deriving any evidence therefrom. The agent's mind is compelled to go out of itself in order to bring back conjectures, the probability of which will vary with the shrewdness of the individual. But this criterion is not only ideal: it is likewise imaginary. If we believe in a scheme of Providence, all actions alike work for good. There is not the least ground for supposing that the crimes of Nero were less instrumental in bringing about our present advantages, than the virtues of the Antonines. Lastly: the

criterion is either nugatory or false. It is demonstrated, that the only real consequences cannot be meant. The individual is to imagine what the general consequences would be, all other things remaining the same, if all men were to act as he is about to act. I scarcely need remind the reader, what a source of self delusion and sophistry is here opened to a mind in a state of temptation. Will it not say to itself, I know that all men will not act so: and the immediate good consequences, which I shall obtain, are real, while the bad consequences are imaginary and improbable? When the foundations of morality have once been laid in outward consequences, it will be in vain to recall to the mind, what the consequences would be, were all men to reason in the same way; for the very excuse of this mind to itself is, that neither its action nor its reasoning is likely to have any consequences at all, its immediate object excepted. But suppose the mind in its sanest state. How can it possibly form a notion of the nature of an action considered as indefinitely multiplied, unless it has previously a distinct notion of the nature of the single action itself, which is the multiplicand? If I conceive a crown multiplied a hundred fold, the single crown enables me to understand what a hundred crowns are; but how can the notion hundred teach me what a crown is? For the crown substitute X. Y. or abracadabra, and my imagination may multiply it to infinity, yet remain as much at a loss as before. But if there be any means of ascertaining the action in and for itself, what further do we want? Would we give light to the sun, or look at our own fingers through a telescope? The nature of every action is determined by all its circumstances: alter the circumstances and a similar set of motions may be repeated, but they are no longer the same or similar action. What would a surgeon say, if he were advised not to cut off a limb, because, if all men were to do the same, the consequences would be dreadful? Would not his answer be—'Whoever does the same under the same circumstances, and with the same motives, will do right; but if the circumstances and motives are different, what have I to do with it?' I confess myself unable to divine any possible use, or even meaning, in this doctrine of general consequences, unless it be, that in all our actions we are bound to consider the effect of our example, and to guard as much as possible against the hazard of their being misunderstood. I will not slaughter a lamb, or drown a litter of kittens in the presence of my child of four years old, because the child cannot understand my action, but will understand that his father has inflicted pain, and taken away life from beings that had never offended him. All this is true, and no man in his senses ever thought otherwise. But methinks it is strange to state that as a criterion of morality, which is no more than an accessary aggravation of an action bad in its own nature, or a ground of caution as to the mode and time in which we are to do or suspend what is in itself good or innocent. The duty of setting a good example is no doubt a most important duty; but the example is good or bad, necessary or unnecessary, according as the action may be, which has a chance of being imitated.

'The question may be thus illustrated. At Florence there is an unfinished bust of Brutus, by Michael Angelo, under which a cardinal wrote the following distich:—

Dum Bruti effigiem sculptor de marmore finxit,
In mentem sceleris venit, et abstinuit.

As the sculptor was forming the effigy of Brutus in marble, he recollected his act of guilt, and refrained.

'An English nobleman, indignant at this distich, wrote immediately under it the following:—

Brutum effinxisset sculptor, sed mente recursat
Multa viri virtus sistit et obstupuit.

The sculptor would have framed a Brutus, but the vast and manifold virtue of the man flashed upon his thought: he stopped and remained in astonished admiration.

'Now which is the nobler and more moral sentiment, the Italian cardinal's, or the English nobleman's? The cardinal would appeal to the doctrine of general consequences, and pronounce the death of Cæsar a murder, and Brutus an assassin. For (he would say) if one man may be allowed to kill another because he thinks him a tyrant, religious or political phrenzy may stamp the name of tyrant on the best of kings: regicide will be justified under the pretence of tyrannicide, and Brutus be quoted as authority for the Clements and Ravilliacs. From kings it may pass to generals and statesmen, and from these to any man whom an enemy or enthusiast may pronounce unfit to live. Thus we may have a cobbler of Messina in every city, and bravos in our streets as common as in those of Naples, with the name Brutus on their stilettos.

'The Englishman would commence his answer by commenting on the words 'because he thinks him a tyrant.' No! he would reply, not because the patriot thinks him a tyrant; but because he knows him to be so, and knows likewise that the vilest of his slaves cannot deny the fact, that he has by violence raised himself above the laws of his country—because he knows that all good and wise men equally with himself abhor the fact; If there be no such state as that of being broad awake, or no means of distinguishing it when it exists; if because men sometimes dream that they are awake, it must follow that no man, when awake, can be sure that he is not dreaming; if because an hypochondriac is positive that his legs are cylinders of glass, all other men are to learn modesty, and cease to be so positive that their legs are legs; what possible advantage can your criterion of general consequences possess over any other rule of direction? If no man can be sure that what he thinks a robber with a pistol at his breast demanding his purse, may not be a good friend enquiring after his health; or that a tyrant (the son of a cobbler perhaps, who, at the head of a regiment of perjured traitors, has driven the representatives of his country out of the senate at the point of the bayonet, subverted the constitution which had trusted, enriched, and honored him, trampled on the laws which before God and man he had sworn to obey, and finally raised himself above all law) may not, in spite of his own and his

neighbours' knowledge of the contrary be a lawful king, who has received his power, however despotic it may be, from the kings his ancestors, who exercises no other power than what had been submitted to for centuries, and been acknowledged as the law of the country; on what ground can you possibly expect less fallibility, or a result more to be relied upon in the same man's calculation of your general consequences? Would he, at least, find any difficulty in converting your criterion into an authority for his act?

'I must now in a few words answer the objection to the former part of my argument (for to that part only the objection applies), namely, that the doctrine of general consequences was stated as the criterion of the action, not of the agent. I might answer, that the author himself had in some measure justified me in not noticing this distinction by holding forth the probability that the Supreme Judge will proceed by the same rule. The agent may then safely be included in the action, if both here and hereafter the action only and its general consequences will be attended to. But my main ground of justification is, that the distinction itself is merely logical, not real and vital. The character of the agent is determined by his view of the action: and that system of morality is alone true, and suited to human nature, which unites the intention and the motive, the warmth and the light, in one and the same act of mind. This alone is worthy to be called a moral principle. Such a principle may be extracted, though not without difficulty and danger, from the ore of the stoic philosophy; but it is to be found unalloyed and entire in the Christian system, and is there called faith.'

What is the inference to be drawn, then, from the extraordinary popularity of Paley's Moral Philosophy? Plainly this, that any sort of work bearing that title, agreeably and plausibly written, especially by an author of some note, will be generally received as very excellent. Moral philosophy is such an imposing, high sounding, sort of entity, but so indefinite withal,—such an obscure phantom, that it may be written about in almost any manner. It may be set up in direct opposition to the gospel on either deistical or atheistical principles; and an unholy alliance may be attempted between it and the gospel by compromising first principles; as if light could have fellowship with darkness,—as if genuine Christianity could be amalgamated with deism or atheism. We have looked at several treatises on moral philosophy of less note than Paley's; such as that of Belsham, of Estlin, and the professedly deistical production of Mr. Jevons, junior, with some others. It is some satisfaction to find these, if not innoxious, at least very impotent. Perhaps the least noxious and the most respectable (unquestionably so morally considered) production of the same school (which has been very prolific of ethical offspring) is the article Moral Philosophy in 'Systematic Education,' written we believe by Dr. Carpenter. He discovers much correctness of judgment on many points, and much good moral feeling; and he remonstrates not only against some of the worst statements of Paley, but even against some of his brother Belsham's. 'The following statement,' he writes, 'in Mr. Belsham's Elements (p. 432) is very objectionable:—Hence it follows that there can be but one rule of right, namely, the tendency of an action or affection to the ultimate happiness of the agent, or what completely coincides with this, under the government of perfect wisdom and benevolence to the greatest general good? Certainly this is more objectionable than even Paley's manner of putting the doctrine of utility; and, though sufficiently reckless for Hume himself, it bears very little other resemblance to that subtle and sceptical reasoner,—is so very harmless as almost to merit a eulogy. We believe the work of this humble disciple of Dr. Priestley is now very quiet and inoffensive, and it is a sort of duty to tread lightly on the ashes of the dead. Indeed the offspring we have been noticing, though somewhat numerous, are not only of obscure parentage, but so short-lived that one epitaph will serve for all,

Born but to die.

Ethics and the evidences are the two great subjects to which a certain class of religious and moral reasoners run when they are in eager haste to come before the public with literary oblations. But it may be truly said to them, Who hath required this at your hands? Whether weighed in the balance of the sanctuary, or tried by the standard of utility, their professed services to religion and morality are wofully wanting.

We have now examined the various systems of moral philosophy of any note both ancient and modern with a view to their essential principles, and have found them not only generally at variance with one another, but so radically deficient in right principle, that it is somewhat difficult to say which of them is most objectionable. This circumstance will seem to some, perhaps, to be a foundation for absolute scepticism; but with all who cannot be satisfied with absolute scepticism (and whom can it satisfy or felicitate?) it ought to recommend that which alone is worthy of all acceptation—the moral philosophy of revelation—the theory of moral sentiment delivered by infinite wisdom. But it must be taken pure and entire as it came from the fountain of intelligence to make us wise unto eternal life; and partakers of such principles and influences as are the commencement of that moral rectitude, and purity, and felicity, which are to be consummated in the eternal world. If the gospel be rejected there is nothing for us of an ethical nature to look to but a vain and deceitful philosophy which is as devoid of any moral power as it is incapable of convincing sound reason.

MORANT (Philip), F.S.A., a learned and indefatigable antiquary and biographer, born at St. Saviour's in the isle of Jersey, in 1700; educated at Abingdon school, and Pembroke College, Oxford, where he took the degree of B.A. in 1721, and that of M.A. in 1724. Between 1733 and 1745 he obtained six benefices in Essex; and in 1748 he published his History of Colchester, of which only 200 copies were printed. In 1751 he was elected F.S.A.; and in February 1768 he was appointed by the house of peers to prepare for the press a copy of the rolls of parliament; a service to which he diligently attended till his death, on November 25th, 1770. Besides the above work, and many useful translations, abridgments and compilations, &c., he wrote all the Lives in the Biographia Britannica marked C; also, the Life of Stillingfleet; the History of Essex, 1760, 1768, 2 vols. folio; the Life of King Edward the Confessor; and about 150 Sermons. He prepared the rolls of parliament as far as the 16th of Henry IV. The continuation of the task devolved upon Thomas Astle, esq., who had married his only daughter.

MORASS', *n. s.* Fr. *morais;* Swed. *morass;* Teut. *morast.* Fen; bog; marsh.

Landscapes point out the fairest and most fruitful spots, as well as the rocks, and wildernesses, and *morasses* of the country. *Watts on the Mind.*

Nor the deep *morass*
Refuse, but through the shaking wilderness
Pick your nice way. *Thomson's Autumn.*

MORATA (Olympia Fulvia), an Italian lady, born at Ferrara, in 1526, and distinguished for her learning. Her father, after teaching the belles lettres in several cities of Italy, was made preceptor to the two young princes of Ferrara, the sons of Alphonsus I. The abilities he discovered in his daughter determined him to give her a superior education. Meanwhile, the princess of Ferrara studying polite literature, it was judged expedient that she should have a companion in the same pursuit; and Morata was chosen as one of the most learned females of her age. Her father dying, she was obliged to return home to superintend the education of her brother and three sisters. Here she married Andrew Gruntler, a young German physician, and went with her husband to Germany; and, after staying a short time at Augsburg, went to Schweinfort in Franconia, where her husband was born; but they had not been there long before that town was besieged and burnt; on which they fled in the utmost distress to Hammelburg. This place they were also obliged to quit, and were reduced to the last extremities, when the elector palatine invited Gruntler to be professor of physic at Heidelberg, and he entered on his new office in 1554. But they no sooner began to taste the sweets of repose, than a disease, occasioned by the distresses and hardships they had suffered, seized upon Morata, who died in 1555, in the twenty-ninth year of her age; and her husband did not long survive her. She composed several works, great part of which were burnt with the town of Schweinfort; the remainder, which consists of orations, dialogues, letters, and translations, were collected and published under the title of Olympiæ Fulviæ Moratæ feminæ doctissimæ, et planè divinæ, opera omnia quæ hactenus inveniri potuerunt; quibus Cœli Secundi Curionis epistolæ ac orationes accesserunt; which has gone through several editions in 8vo.

MORATALLA, a large town of Murcia, Spain, on a river of the same name. It has a church and eight monasteries, two hospitals, and 6000 inhabitants. Fifty miles W.N.W. of Murcia.

MORAVA, or the March, a large river of Austria, having its source at the foot of the Schneeberge mountain, situated on the frontiers of Bohemia, Moravia, and the county of Glatz. Its course is from north to south, and, flowing through Moravia, it separates lower Austria from Hungary, and then falls into the Danube above Presburg. It is joined by the Theya, the Hanza, and the Becswa.

MORAVIA, a province of the Austrian empire, bounded by Hungary on the east, by Austria Proper on the south, and by Bohemia on the north and west. With Austrian Silesia, now annexed to it, it contains 10,700 square miles, and a population of 1,681,000; of these 1840 square miles, and 347,000 inhabitants, belong to Silesia. Moravia Proper is divided into the circles of Brunn, Olmutz, Hradisch, Prerau, Znaym, and Iglau. The principal towns are,

	Inhabitants.
Brunn (the capital), with	26,000
Olmutz	11,000
Iglau	11,000
Troppau	10,000
Sternberg	8,000
Nikolsburg	7,600
Teschen	5,400
Znaym	5,200
Cremsier	3,200
Fulneck	3,100
Prerau	2,900
Hradisch	1,700

Moravia is intersected by several mountain ranges, of which the highest are toward Bohemia. A branch of the Sudetic chain extends from the north-west of the province to the centre; a lofty branch of the Carpathian occupies the east and north-east; and another, but less lofty one, extends across the south. The cavern of Maczocha, of extraordinary depth, is considered a great natural curiosity. The most lofty ridges of Moravia are diversified with fertile valleys and extensive plains. The rivers include the March or Morava, which, after absorbing most of the other numerous streams, particularly the Theya or Taja, flowing from the west, holds a course nearly south, and falls into the Danube.

Though the soil is in general fertile, little corn is exported. Flax is cultivated in the circles of Brunn and Olmutz, and in quality is second only to that of Silesia. In certain situations the soil and climate are favorable to the grape; but the government interfered in 1803 to prohibit the further laying out of vineyards. According to M. Blumenbach, Moravia contained, in 1816, 50,856 joch of vineyard: the annual produce

was estimated at 458,542 eimers; but, by an average of twenty-seven years, it was found to be only 431,425; each joch yielding nearly eight eimers and a half. The forests are well attended to, and profitable in timber: the pasture grounds are extensive in the mountains; and a great proportion of the Austrian heavy horse is furnished from hence. Horned cattle are exported, but not largely: also hogs and geese. In 1739 the average yearly produce was reckoned to be 1,581,101 metzen of wheat, 4,741,605 metzen of rye, 2,104,152 metzen of barley, 9,291,146 metzen of oats; altogether 17,718,004 metzen, on 1,714,942 joch of arable land. After subtracting 571,647 joch for tallow, each of the remaining 1,143,295 joch yields an average of 15½ metzen.

Moravia, though inland, is subject to sensible variations in its temperature, the mountains and valleys having a considerable influence on the wind, which commonly blows from the north-west or south-east. The west, south-west, and south winds, are attended by rain, storms, or fog; the north-west winds are cloudy, and the south-east render the air serene.

The *mines* have been long famous; those of Iglau being discovered in the eighth century, and having been well managed in the thirteenth. The gold and silver mines were lost sight of during the fifteenth and sixteenth centuries; the most productive at present are those of iron and lead. The working of coal mines is as yet in its infancy. Here is a fossil incense, a species of amber; and a kind of clay very useful and superior for making tobacco pipes.

The inhabitants of Moravia, being a mixture of Germans, Sclavonians, and Jews, participate in the manners and customs of all these stocks. Their greatest general resemblance is to the Bohemians. Near Olmutz, a small tract is occupied by a people of Sclavonic origin, who are supposed by the native writers to be the unmixed descendants of the aborigines of the country. They are called Hannacks, probably from the river Hauna which flows here. They are low of stature, strong, and muscular; having preserved, in their manner of life, much primitive simplicity; and from their plain and temperate habits live to an advanced age. They are reproached by their neighbours with indolence, but they plead the fertility of their soil as a palliation of the charge, and look down on their accusers as an inferior race of beings. 'The young women,' says Dr. Neale, 'are remarkable for the grace and elegance of their forms, and the neat adjustment of their dresses, which are very picturesque, and show off, to great advantage, a considerable share of personal beauty with which their wearers are gifted. Their summer dress consists of a large white linen cap, the lappets of which, bordered with lace, and embroidered with black silk, fall over their shoulders. Their long hair is suffered to float in tresses; or, when the cap is laid aside, is gracefully twisted and tied over the head with knots of ribands; their well-turned ankles are set off with white or red stockings, with black shoes and red heels. The dress of the men consists of a round hat, adorned with various colored ribands; a waistcoat, commonly green, embroidered with silk, surmounted by a broad leathern girdle, with brown pantaloons and boots, joined to the vest by means of large buckles. This is their summer costume; but in winter they cover their heads with a large and singularly-shaped fur cap, and throw over their shoulders an undressed sheep or wolf-skin, in the absence of which they wear a brown woollen cloak, with a large hood, like that of a Capuchin friar.'

The Moravian language is a dialect of the Sclavonian, and seems to have been first reduced to writing by Cyrillus, the missionary, who, with Methodius, was sent hither by the emperor Michael, in the ninth century. They established the Greek ritual, and the service was performed in the native language to a late period, when the influence of Austria obtained the substitution of the Catholic forms. Although, in the fifteenth century, the Hussites in this province were so completely successful, and in the sixteenth the doctrines of the reformation spread with uncommon rapidity, the settled intolerance of the Austrian court compelled many families to return to the Catholic church, and great numbers emigrated. When Joseph II. proclaimed liberty of worship, the Protestants were found to consist of only 12,000 Calvinists, and 11,000 Lutherans.

Moravia has a nominal assembly of representatives, who meet once a year to determine the mode of levying taxes. The sessions are short, but a committee sits the whole year. A governor and court of appeal conduct the civil administration. There are seven gymnasia or classical schools in Moravia; one normal school for the formation of teachers, and a great number of elementary schools. A university was founded at Olmutz in 1567, which in 1782 was converted into a lyceum.

Moravia has of late made considerable progress in manufactures, and is on the whole one of the most flourishing portions of the Austrian empire. Woollens, linen, and cotton in particular, are made on a large scale; consuming not only all the wool and flax, but requiring a large importation of wool from Hungary, and flax from Silesia and Poland. Near Iglau above 40,000 pieces are woven annually, and sent to Leipsic, Frankfort, and other parts of the empire. Woollens are manufactured on a large scale at Fulnek and Maehrisch Neustadt, and at Brunn and Peltsch. Dyeing is also carried on in great perfection at Brunn. The number of persons employed in Moravia in weaving woollens is estimated at 16,000; in spinning at 24,000, exclusive of family weaving for consumption. The chief manufacture of thread is near Rothwasser. The cotton works of Lettowitz occupy 2000 individuals. The other manufactures are paper, leather, pot ash, and glass; and the whole give rise to a brisk export trade. The imports are chiefly flax, cotton, oil, and silk, as materials of manufacture; and cattle, wine, and hardware, for consumption. The goods are chiefly conveyed in waggons, along the two great commercial roads leading from Vienna, by Prague, Znaym, and Iglau, west; and by Brunn and Olmutz in the centre of the province. Much English machinery has been introduced here.

Moravia was anciently inhabited by the Quadi, who were driven out by the Sclavi. Its kings, who were once powerful and independent, afterwards became dependent on, and tributary to, the German emperors and kings. At last, in 908, the Moravian kingdom was parcelled out among the Germans, Poles, and Hungarians. In 1086 that part of it properly called Moravia was declared a marquisate by the German king Henry IV., and united with Bohemia. The margraves do not seem, however, to have reigned in tranquillity: several resigned their dignity in succession, and Moravia fell next into the hands of the Hungarians; but a long series of troubles, occasioned by the Hussite wars, and by other internal dissensions, obliged the Hungarian sovereigns to relinquish the acquisition. Moravia for a time resumed its independence; but, after various changes, became again subject to Bohemia; and in 1527, on Ferdinand I. succeeding to the crowns of Hungary and Bohemia, was added to the possessions of Austria, with whom it has ever since remained.

MORAVIANS, in ecclesiastical history. See Unitas Fratrum.

MORAWA, a large river of Servia, European Turkey, consisting of two great arms, the East and West, which, after flowing in different directions, unite near the small town of Rasna, and fall into the Danube, considerably to the east of Belgrade. It is joined by the Ibar, Mitrovitza, Nissa, and a number of others flowing from the mountains that traverse European Turkey from east to west.

MOR'BID, *adj.*
Mor'bidness, *n. s.*
Morbif'ic, *adj.*
Morbif'ical,
Morbose',
Morbos'ity, *n. s.*
} Lat. *morbus*, *morbidus*, *morbosus*; Fr. *morbifique*. Diseased; unhealthy: morbidness, and morbosity, mean the state of being out of health or diseased: morbific and morbifical, causing disease: morbose, proceeding from disease.

The inference is fair, from the organ to the action, that they have eyes, therefore some sight was designed, if we except the casual impediments or *morbosities* in individuals. *Browne.*

The air appearing so malicious in this *morbifick* conspiracy, exacts a more particular regard; wherefore initiate consumptives must change their air. *Harvey on Consumptions.*

Malphigi, under galls, comprehends all preternatural and *morbose* tumours and excrescences of plants. *Ray on the Creation.*

Though every human constitution is *morbid*, yet are there diseases consistent with the common functions of life. *Arbuthnot.*

This disease is cured by the critical resolution, concoction, and evacuation of the *morbifick* matter. *Id.*

MORBIHAN, a department in the north-west of France, bounded by the sea on the south, and by the Côtes du Nord on the north. Its superficial extent is 2800 square miles; its population 403,500. The surface is in great part an undulating sandy plain, containing much marshy land. It is watered by the Vilaine, the Blavet, the Claye, the Oust, and the Scorf. The soil is not of great fertility; the climate temperate, but the air, from the vicinity of the sea, generally humid and cloudy. The corn raised, however, is equal to the consumption, and flax, hemp, and fruit, are cultivated: but the wealth of the country consists in its cattle. The fisheries are also extensive; and salt is made along the coast. The manufactures are linen and yarn: the exports cattle in great numbers, some corn, butter, honey, wax, salt-fish, and linen. This department belongs to the diocese of Vannes, which is the capital; but L'Orient is the larger town.

Morbihan, a large salt-water bay or basin on the north-west coast of France, from which the department above mentioned takes its name.

MORBUS, Cholera. See Medicine.

Morbus Comitialis, a name given to the epilepsy; because if on any day when the people were assembled in comitia upon public business, any person suddenly seized with this disorder should fall down, the assembly was dissolved, and the business of the comitia, however important, was suspended. See Comitia.

MORDA'CIOUS, *adj.*
Mordac'ity, *n. s.*
Mor'dicant, *adj.*
Mordica'tion, *n. s.*
} Lat. *mordax*, *mordacitas*, *mordeo*; Fr. *mordacité*, *mordicant*. Both the adjectives mean biting, or apt to bite; acrid: mordacity, the quality or aptitude of biting: mordication, the act of biting or corroding.

It is to be inquired, whether there be any menstruum to dissolve any metal that is not fretting or corroding, and openeth the body by sympathy, and not by *mordacity*, or violent penetration. *Bacon.*

Another cause is *mordication* of the orifices, especially of the mesentery veins; as any thing that is sharp and biting doth provoke the part to expel, and mustard provoketh sneezing. *Bacon.*

He presumes, that the *mordicant* quality of bodies must proceed from a fiery ingredient; whereas the light and inflammable parts must be driven away by that time the fire has reduced the body to ashes. *Boyle.*

MORDANT is a name given to various substances used in dyeing, to enable the coloring matter to adhere more fixedly to the material to be colored, and which it was formerly supposed to do, by eating its way into the texture of such material, whence it derives its name. A more accurate knowledge of chemistry, however, has now taught us that this effect is produced not by any corrosive property in the substance denominated a mordant, but in consequence of its equal attraction or affinity for the coloring material and the material to be colored, by which they are kept in a state of union. Other substances are also called mordants, which have merely the effect of increasing the intensity and brightness of the color. Of the first kind we have decided examples in alum and oxide of iron. In order to demonstrate the effect of affinity in the operations where alum is used, we may give a short description of the process of printing a piece of calico. Since the alumina or base of the alum has been discovered to be the essential ingredient, it has been also found that when the acetate of alumine is employed, the stuff takes the earth from that acid with greater facility than it does from the sulphuric acid, when alum (sulphate of alumina) is used. For this purpose the alum is mixed in certain pro-

portion with the acetate of lead. By this means the acetate of alumine is obtained in solution, while the sulphate of lead can be separated on account of its insolubility. The acetate of alumine is then mixed up to the right consistence, and applied to the stuff. After this, the whole of the piece is dipped into a madder bath. Those parts where the alumine has been applied assume a deep and lively color, while the ground is very faint, and of a dirty hue. If the stuff be now repeatedly boiled with bran, and exposed to the air and light, the ground becomes white, while the printed parts remain permanent. In this process it is clearly shown that the stuff in itself has not a sufficient attraction for the coloring matter to receive a permanent dye, without the presence of the alumina, which, by its common affinity to both, renders the color intense and permanent.

MORDAUNT (Charles), earl of Peterborough, a celebrated commander both by sea and land, was the son of John lord Mordaunt, viscount Avalon, and was born about 1658. In 1675 he succeeded his father in his honors and estate. While young he served under admirals Torrington and Narborough, in the Mediterranean, against the Algerines; and in 1680 embarked for Africa with the earl of Plymouth, and distinguished himself at Tangier when it was besieged by the Moors. In the reign of James II. he voted against the repeal of the test act; and, disliking the measures of the court, obtained leave to go to Holland to command a Dutch squadron in the West Indies. He afterwards accompanied the prince of Orange into England, and, upon his advancement to the throne, was made a privy-councellor, a lord of the bedchamber, first commissioner of the treasury, and earl of Monmouth. But in November, 1690, he was dismissed from the treasury. On the death of his uncle Henry earl of Peterborough, in 1697, he succeeded to that title; and, upon the accession of queen Anne, was appointed captain-general and governor of Jamaica. In 1705 he was again made a privy-councillor, general and commander in chief of the forces sent to Spain, and joint admiral of the fleet with Sir Cloudsley Shovel, of which, in 1706, he had the sole command. His taking Barcelona with a handful of men, and afterwards relieving it when greatly distressed by the enemy; his driving out of Spain the duke of Anjou and the French army, which consisted of 25,000 men, though his own troops never amounted to 10,000; his gaining possession of Catalonia, Valencia, Arragon, and Majorca, with part of Murcia and Castile, and thereby giving the earl of Galway an opportunity of advancing to Madrid without a blow, are astonishing instances of his bravery and conduct. For these important services his lordship was declared general in Spain by Charles III. afterwards the sixth emperor of Germany; and, on his return to England, he received the thanks of the house of lords. He was afterwards employed in several embassies to foreign courts, installed K. G., and made governor of Minorca. In the reign of George I. he was general of all the marine forces in Great Britain, in which post he was continued by king George II. He died on a passage to Lisbon, in 1735. To the greatest personal courage and resolution, he added all the talents of a general, and a great knowledge of ancient and modern literature. He was very ready at repartee: and being once surrounded by a mob, who took him for the duke of Marlborough, then very unpopular; he said, 'I will convince you I am not the duke: in the first place, I have but five guineas in my pocket; and, secondly, here they are, much at your service:' he threw his purse among them, and got off with loud acclamations.

MORDECAI, Heb. מורדכי, i. e. bitter, the son of Jair, a celebrated Jew of the tribe of Benjamin, uncle and guardian of Esther, queen of Persia. His saving the life of king Ahasuerus, the enmity of Haman against him, the downfall and destruction of that proud minister, and the promotion of Mordecai to his office, with the other interesting circumstances which contributed to save the Jewish nation from extirpation, are recorded in the Book of Esther.

MORDELLA, in zoology, a genus of insects, of the coleoptera order. The antennæ are thread-shaped and serrated; the head is deflected under the neck; the pappi are clavated, compressed, and obliquely blunted; and the elytra are bent backwards near the apex. There are thirty-four species, mostly natives of Europe.

MORE, *adj.*, *adv.* & *n. s.* Sax. mare; Goth. *meri*; Teut. *meter*; Swed. *mere*; *à* Lat. *major*. Minsheu. The comparative of some; great, or much; greater in quantity, size or number: as an adverb, to a greater degree: a particle expressing comparativeness; longer; a second time; again: as a substantive, a greater quantity: hence greater thing; longer time or second time.

And thou shalt not *mowe* speke, till into the day in which these thingis schulen be don, for thou hast not beleved to my wordis, whiche shulen be fulfild in her tyme. *Wiclif.*

The dove returned not again unto him any *more*. *Gen.* viii.

He loved Rachel *more* than Leah. *Gen.* xxix. 30.

The Lord do so, and much *more*, to Jonathan. 1 *Samuel.*

The *more* part advised to depart. *Acts* xxvi. 12.

On of us two most bowen doubtless;
And sith a man is *more* reasonable
Than women is ye mosten ben suffrable.
Chaucer. Cant. Tales.

Wrong not that wrong with *more* contempt. *Shakspeare.*

Both *more* and less have given him the revolt. *Id.*

I am fallen out with my *more* headier will,
To take the indisposed and sickly fit
For the sound man. *Id. King Lear.*

Cassius is no *more!* Oh, setting sun!
As in thy red rays thou dost sink to-night,
So in his red blood Cassius' day is set. *Shakspeare.*

Were I king,
I should cut off the nobles for their lands:
And my *more* having would be as sauce
To make me hunger. *Id. Macbeth.*

The spirits of animate bodies are all, in some degree *more* or less kindled.
Bacon's Natural History.

Some were of opinion, that feeling *more* and *more* in himself the weight of time, he was not unwilling to bestow upon another some part of the pains.
Wotton.

Then crown my joys, or cure my pain;
Give me *more* love, or *more* disdain. *Carew.*

He had so many languages in store,
That only fame shall speak of him in *more*.
Cowley.

Sin is never at a stay; if we do not retreat from it, we shall advance in it; and the further we go, the *more* we have to come back. *Barrow.*

Pr'ythee be satisfyed; he shall be aided,
Or I'll no *more* be king. *Dryden's Cleomenes.*

The *more* the kindled combat rises higher.
The *more* with fury burns the blazing fire.
Dryden.

An heroic poem requires some great action of war; and as much or *more* of the active virtue than the suffering. *Id.*

They that would have *more* and *more* can never have enough; no, not i miracle should interpose to gratify their avarice. *L'Estrange.*

A mariner having let down a large portion of his sounding line, he reaches no bottom, whereby he knows the depth to be so many fathoms and *more*; but how much that *more* is, he hath no distinct notion. *Locke.*

Delia, the queen of love, let all deplore!
Delia, the queen of beauty, is no *more*. *Walsh.*

Little did I think I should ever have business of this kind on my hands *more*. *Tatler.*

I'm tired of rhiming, and would fain give o'er,
But Montague demands one labour *more*. *Addison.*

Our constitution does not only make a difference between the guilty and the innocent, but, even among the guilty, between such as are *more* or less criminal.
Addison's Freeholder.

The advantages of learning are *more* lasting than those of arms. *Collier on Pride.*

As the blood passeth through narrower channels, the redness disappears *more* and *more*. *Arbuthnot.*

Great Dryden's friends before,
With open arms received one poet *more*. *Pope.*

They steered their course to the same quiet shore,
Not parted long, and now to part no *more*. *Id.*

The *more* God has blessed any man with estate or quality, just so much less in proportion is the care he takes in the education of his children.
Swift's Miscellanies.

Absurd longevity! *more*, *more*, it cries:
More life, *more* wealth, *more* trash of every kind.
Young.

More (Alexander), a French protestant divine, born at Castros in 1616. His father was a Scotsman, and principal of the college of the Calvinists in that city. Alexander was sent to Geneva, where he was made professor of Greek and of Theology, and at the same time discharged the office of a pastor. But the irregularity of his conduct excited a great number of enemies against him, and Saumaise invited him to Holland, where he was first appointed professor of theology of Middleburg, and afterwards of history at Amsterdam. The duties of these stations he discharged with great ability; and in 1625 went to Italy, where he published his beautiful poem on the defeat of the Turkish fleet by the Venetians. This work procured him a gold chain from the republic. He afterwards went to Charenton, where his sermons attracted a numerous audience, by the satirical allusions and witticisms with which they abounded. He died in Paris in 1670, aged fifty-four. He was never married. His works are, 1. A Collection of Controversial Tracts. 2. Orations and Poems, in Latin. 3. An Answer to Milton, entitled Alexandri Mori fides publica.

More (Henry), D. D. and F. R. S., an eminent English divine and philosopher in the seventeenth century, was educated at Eton school, and Christ's College, Cambridge, of which he became a fellow, and spent his life in a retired way, publishing a great number of theological works. He refused bishoprics both in Ireland and England. He was an open-hearted sincere Christian philosopher, who studied to establish men in the belief of providence against atheism. His writings have been published in Latin and English, folio.

More (John), D. D., bishop of Ely, an eminent English prelate, born in Leicestershire, and educated at Cambridge, where he took his degree in 1681. After various preferments he was made bishop of Norwich in 1691, and translated to Ely in 1707. He died in 1714. His sermons were published by Dr. Samuel Clarke, who was his chaplain. He collected a most magnificent library, which was purchased by king George II. for 6000 guineas, and presented to the university of Cambridge

More (Sir Anthony), an eminent painter, born in Utrecht in 1512. He became the disciple of John Schooveil, but studied the manner of Holbein, to which he approached nearer than to that of the great masters at Rome. Like Holbein he was a close imitator of nature, but did not arrive at his extreme delicacy of finishing; on the contrary he sometimes struck into a bold and masculine style. He had a good knowledge of the chiaro scuro. In 1522 he drew Philip II.; and was recommended by cardinal Granvelle to Charles V. who sent him to Portugal, where he painted king John III., Catherine his queen, and the infanta Mary, first wife of Philip II. For these three pictures he received 600 ducats, besides a gold chain of 1000 florins value, and other presents. He had 100 ducats for his common portraits. He afterwards came to England to paint the portrait of queen Mary, then engaged to the same Philip, and for that picture received £100, a gold chain, and was made painter to their majesties, with a pension of £100 per quarter. He remained in England during Mary's reign, and was very much employed, so that most of the noble mansions in the country are adorned with some of his pictures. On the death of that queen, More returned with Philip to Spain, highly favored by the king, whose familiarity with him placed his life in danger; for More ventured to return a slap on the shoulder, which Philip in a playful moment gave him, by rubbing some carmine on his majesty's hand. This behaviour was accepted by the monarch as a jest, but it was hinted to More that the holy tribunal might regard it as a sacrilege, and he fled, to save himself, into Flanders, where he was employed by the duke of Alva. At Utrecht he was employed by the duke to draw several of

his mistresses, and was made receiver of the revenues of West Flanders; a preferment with which he was so much elated, that he burned his easel and gave away his painting tools. He was a man of a stately handsome figure, and went to Brussels, where he lived magnificently; but died at Antwerp in 1568. His portrait, painted by himself, is in the chamber of painters at Florence.

More (Sir Thomas), lord high chancellor of England, son of Sir John More, one of the judges of the King's Bench, was born in 1480 at London; where he received the rudiments of his education. He was afterwards introduced into the family of cardinal Moreton, who, in 1497, sent him to Canterbury College, Oxford, where he attended the lectures of Linacre and Grocinus, on Greek and Latin. In 1499 he came to New Inn, London, to study the law; whence he removed to Lincoln's Inn, of which his father was a member. He was now about twenty years old, and, notwithstanding his application to the law, was so bigoted to monkish discipline, that he wore a hair-shirt next his skin, and often fasted and slept on a bare plank. In 1503, being then a burgess in parliament, he distinguished himself in the house, in opposition to the motion for granting a subsidy and three-fifteenths for the marriage of Henry VII.'s eldest daughter Margaret to king James V. of Scotland. The motion was rejected; and the king was so highly offended at this opposition from a beardless boy, that he revenged himself on his father, by sending him to the Tower, and obliging him to pay £100 for his liberty. Unwilling to involve his father or friend again in the king's displeasure, he retired from public notice, and passed several years in privacy. Being now called to the bar, he was appointed law-reader at Furnival's Inn, which he held about three years. About this time he also read a public lecture in St. Lawrence's church, Old Jewry, upon St. Austin's treatise, De Civitate Dei, with great applause. He had intended to become a Franciscan friar, but was dissuaded from it; and, by the advice of Dr. Colet, married the eldest daughter of John Colt, esq., of Newhall in Essex. It has been said, that in visiting this gentleman he was attracted by the charms of the second daughter; but that, unwilling to mortify the eldest, he paid his addresses to her. In 1508 he was appointed judge of the sheriff's court in London, was made a justice of the peace, and became very eminent at the bar. In 1516 he went to Flanders with bishop Tonstal and Dr. Knight, who were sent by Henry VIII. to renew the alliance with the archduke of Austria afterwards Charles V. On his return, Cardinal Wolsey would have engaged him in the service of the crown, and offered him a pension which he refused. But he soon after accepted the place of master of the requests, was created a knight, and a privy counsellor, and in 1520 made treasurer of the exchequer. About this time he built a house at Chelsea, and married a second wife, whose name was Middleton, a widow, old, ill-tempered, and covetous; yet Erasmus says he was as fond of her as if she had been a young maid. In 1523 he was made speaker of the house of commons; in which capacity he had the courage to oppose the then powerful minister, Wolsey, in his demand of an oppressive subsidy; yet he was, soon after, made chancellor of Lancaster, and was treated by the king with singular familiarity. The king, having once dined with Sir Thomas at Chelsea, walked with him near an hour in the garden, with his arm round his neck. After he was gone, Mr. Roper, Sir Thomas's son-in-law, observed how happy he was to be so familiarly treated by the king; to which Sir Thomas replied, 'I thank our lord, son Roper, I find his grace my very good lord indeed, and believe he doth as singularly favor me as any subject within this realm; howbeit, I must tell thee I have no cause to be proud thereof, for, if my head would win him a castle in France, it would not fail to go off.' In 1526 he was sent with Cardinal Wolsey and others, on a joint embassy to France, and in 1529 with bishop Tonstal to Cambray. The king, it seems, was so well pleased with his services on these occasions, that in 1530 he made him chancellor; which seems the more extraordinary, as Sir Thomas had repeatedly declared his disapprobation of the king's divorce. He executed that office about three years, with wisdom and integrity, sullied only by employing all the authority of his office in assisting the popish clergy in their rigorous proceedings against the reformers. It is even asserted, on good authority, that he caused one Bainham, a gentleman of the temple, to be whipped and tortured in his own presence. He in 1533 resigned the seals, probably to avoid the danger of his refusal to confirm the king's divorce, and retired to his house at Chelsea; dismissed many of his servants; sent his children with their respective families to their own houses (for hitherto he had maintained all his children, with their families, in his own house, in the true style of an ancient patriarch); and spent his time in study and devotion; but the capricious tyrant would not suffer him to enjoy this tranquillity. Though now reduced to a private station, his opinion of the legality of the king's marriage with Anne Boleyn was deemed of so much importance that various means were tried to obtain his approbation; but, all persuasion proving ineffectual, he was with some others attainted in the house of lords of misprision of treason, for encouraging Elizabeth Barton, the Holy Maid of Kent, in her treasonable practices. When she opened her commission, to admonish the king of his crimes against the church, she called upon More, and made him privy to her pretended revelations. Her affected simplicity and holiness seem to have made considerable impression upon him; he wrote her a letter, and, on this circumstance being made known, the king directed him to be prosecuted as an accomplice with her, and they were named together in one bill of attainder. While this was suspended over him, a committee was appointed to hear his justification of himself; this plan was not, however, intended to free the accused, but with the view of entrapping him to assent to the king's divorce, which Henry thought he would gladly do, to escape the danger that threatened him. He nobly withstood

the temptation, and so completely cleared himself from every imputation of crime, that they were obliged to strike his name out of the bill. He was then accused of other crimes, but with the same effect; till, refusing to take the oath enjoined by the act of supremacy, he was committed to the Tower, and, after thirteen months imprisonment, was tried in the king's Bench for high treason, in denying the king's supremacy. The proof rested on the sole evidence of Rich, the solicitor general, whom Sir Thomas, in his defence, sufficiently discredited; nevertheless the jury brought him in guilty, and he was condemned to suffer as a traitor. Sir Thomas More was unmoved at the sentence, which, though quite conscious of his innocence, he probably expected; and he was ordered back to the Tower. On his road, his favorite daughter, Mrs. Roper, who had been anxiously waiting the event, burst through the throng, fell on her knees before her father, and closely embracing him, could only utter the words, 'My father, Oh! my father!' He tenderly returned her embrace, exhorted her to patience and resignation to the divine will, and parted from her. Scarcely had they separated, when, in a new passion of grief, she again burst through the crowd, and clung round his neck in speechless anguish. His firmness was now overcome; tears flowed plentifully down his cheeks, till, with a final kiss, she left him. On the fatal day, July 5th, 1535, he dressed himself in his best apparel, and walked cheerfully to the place of execution; observing that the scaffold was but slenderly built, he turned to the lieutenant of the Tower and said, 'I pray you, Mr. Lieutenant, see me safe up, and for my coming down let me shift for myself.' He requested the spectators to offer up their prayers for him, and to bear witness that he died in and for the Holy Catholic Church, and had been a faithful servant of God and the king. He then addressed himself to his Maker, and calmly submitted to the blow of the executioner, having first requested him to stay his hand till he had removed his beard, 'which at least,' said he, 'has committed no treason.' His body, which was first interred in the Tower, was begged by his daughter Margaret, and deposited in the chancel of the church at Chelsea, where a monument, with an inscription written by himself, had been erected. She also procured his head after it had remained fourteen days upon London bridge, and placed it in a vault belonging to the Roper's family, under a chapel near St. Dunstan's church in Canterbury. Sir Thomas More was a man of some learning, and an upright judge; a very priest in religion, yet cheerful, and even witty on many occasions, particularly at his execution. He wanted not sagacity, where religion was out of the question; but in that his faculties were so enveloped, as to render him a weak and credulous enthusiast. He left one son and three daughters. Sir Thomas was the author of various works, though his Utopia is the only performance that has survived, the rest being chiefly of a polemic nature. His English works were collected and published by order of queen Mary in 1557; his Latin at Basil in 1563, and at Louvain in 1566.

More (Margaret), the eldest daughter of Sir Thomas More, was celebrated for her knowledge of the Greek and Latin languages. She married Mr. Roper of Well-hall in Kent, whose Life of Sir Thomas More was published by Mr. Hearne at Oxford in 1716. She died in 1544, and was buried in the vault of St. Dunstan's in Canterbury.

MOREA, anciently called Peloponnesus, a peninsula south of Greece, to which it is joined by the isthmus of Corinth. Its form resembles a mulberry-leaf, and its modern name is derived from its abounding with mulberry-trees. It is about 180 miles long and 130 broad. The air is temperate, and the land fertile, except in the middle, where it is full of mountains, and is watered by many rivers. See Greece and Peloponnesus.

MOREAU (James), an eminent French physician, born at Chalons sur Saone, the disciple and friend of the famous Guy Patin. He drew upon himself the jealousy and hatred of the old physicians by his public theses. He died in a very advanced age in 1729. He wrote in French, 1. Consultations on the Rheumatism. 2. A Chemical Treatise on Fevers. 3. A Physical Dissertation on the Dropsy; and other works which are still esteemed

Moreau (Jean Victor), one of the oldest and most celebrated of the French revolutionary generals, was born in 1761 at Morlaix in Lower Brittany. His father was a respectable advocate in that town; a profession which, it appears, had been followed by the family for generations. Young Moreau was also intended for the law, and, after the usual studies, was sent to the university of Rennes to take his degrees. In 1788 he was prevot de Droit, or head of the students in law at Rennes, a body of young men at all times remarkable for their turbulence and public spirit, and over whom he had considerable influence. In the petty squabbles which at that period took place between the court of France and the parliament, Moreau was, in consequence, appointed their leader, and styled the general of the parliament, whose cause was at that time considered as that of public liberty. In the winter following, however, Moreau acted at the head of this youthful band against that very parliament and the states of Brittany, who were then proceeding against the orders of the court, and the wishes of the people, in resisting the convocation of the general states of the kingdom; for even in his early career Moreau's leading principles appear to have been a sincere love for rational liberty. On those occasions Moreau evinced an equal degree of prudence and courage; and his gentlemanly manners and graceful person added not a little to his popularity. In January, 1790, he acted as president of the confederation of the youth of Brittany, assembled at Pontivy; and, on the formation of the national guards, was named commandant of one of the battalions of that province. Moreau had then, for the first time, an opportunity of embracing permanently a profession so congenial to his feelings; and his labors in the new career he had entered were incessant. His battalion was first reviewed in May 1790; and the inspecting

general, count de Thiars de Bissy, notwithstanding the jealousy which the troops of the line then entertained of the national guard, could not help saying, 'that few colonels of the line, with their old corps, could have afforded him the gratification of seeing so much regularity, disciplire, and precision, as in the evolutions of that battalion of national guards.' 'The count de Thiars has done me much honor (said Moreau, returning from the review), but I hope he will live long enough to see me command not only national guards, but the army of the line.' Moreau, however, did not take the steps which were likely to insure his rapid promotion; he showed too openly his hatred of the measures and principles of the anarchists; and the battalion was the last to accept the too famous constitution of 1793, at a time when hesitation was punished with instant death. The convention, however, were in want of good officers; and, in July 1793, he was promoted to the rank of general of brigade by the committee of public safety. His first action as a commander was on the 14th of September, when, with a division of the army of the Moselle, he attacked the Prussian army commanded by the duke of Brunswick. He was defeated; but the duke of Brunswick in his report to the king of Prussia, of the 15th of September 1793, said, that 'his able plan of attack was surpassed only by his yet abler dispositions for retreat; and that the corps he commanded was neither dispersed nor dishonored.' In the autumn of 1793, Moreau became acquainted with Pichegru, who obtained for him the command of a division in the army of the Rhine to which he had been appointed. Under that able master, Moreau, in a variety of enterprises, in which it is not our intention to follow him, acquired that military experience, and those comprehensive views, of which he afterwards so successfully availed himself. It was in the midst of these successes that the Jacobins of Morlaix sent to the guillotine his aged father, who was considered as the father of the poor. The first resolution of Moreau, at hearing the fatal intelligence, was to leave the service of these monsters, and to join the emigrants armed to punish their crimes. He accordingly tendered his resignation to his friend general Pichegru. But Pichegru was of a very different opinion. 'What do you intend to do?' he asked Moreau, 'To quit the army and France!' was the reply. 'To quit the army and France!' repeated Pichegru: 'do you not then see the manner in which the Emigrés are treated by the foreign powers? I do not accept of your resignation. I beg of you, as a friend, to reflect on the step you intend to take—come to me again to-morrow. It is not thus that you should intend to avenge the death of your father! You must think of acquiring a glory and an importance which may one day put you in a situation to avenge it. I shall soon furnish you with an opportunity of distinguishing yourself.' Moreau came the day after to Pichegru, and told him that he was convinced by his reasoning, which appears to have influenced the whole of his conduct afterwards. We shall not follow this commander in his brilliant military career —that belongs to history; but we cannot avoid observing, that thrice he had the honor of saving the French armies from impending destruction, and on two of these occasions he acted as a simple volunteer, or in subordinate situations in the army, having been superseded by the accomplices of his father's murderer, who dreaded the just vengeance of a man whom his exploits and moral conduct had made so popular with the troops and the people. It was on this occasion that a French colonel, then attached to Moreau's army, asked him, when the order of the directory for superseding him had been just received, 'General, will you obey so insulting a mandate?' 'Yes, answered Moreau, as a general, an officer, or a soldier, Moreau is always ready to serve France.' His talents as a general again brought him forward, and in 1798 he was sent to command the army of Italy, where, after some brilliant successes, he was obliged to give way to the Russian force under Suwarrow, and he conducted another retreat with great skill. On the return of Buonaparte from Egypt, he at first cordially supported him; but a coldness afterwards ensued, notwithstanding which, Napoleon, as first consul, entrusted him with the command of the armies of the Danube and the Rhine. The celebrated passage of these rivers, with the battles of Moeskirch, Memmingen, Hochstedt, Nedenheim, and others, followed, ending with the decisive victory of Hohenlinden, which induced the Austrians to seek for peace. On his return to Paris he was received by the first consul with the most flattering attention, and he soon after contracted an alliance with a young lady of birth and fortune, and retired to his estate at Grosbois. He finally appears to have implicated himself in the conspiracy of Pichegru and Georges. He was brought to trial, finally declared guilty, and sentenced to two years' imprisonment, and to bear the expenses of the suit. He was, however, allowed to travel in lieu of imprisonment, and to seek an asylum in the United States of America. He accordingly embarked at Cadiz in 1805, and safely reached America, where he bought a fine estate, near Morinville. Here he remained some years in peace, until listening to the invitation of the allies, and more especially of Russia, he embarked for Europe in the July of that year, and reaching Gottenburg, proceeded to Prague. Here he found the emperors of Austria and Russia, with the king of Prussia, all of whom received him with great cordiality.

His first appearance in a military character was before the walls of Dresden, where he was in the act of giving some opinion on military matters, while passing with the emperor of Russia behind a Prussian battery, to which two batteries were answering, one in front and the other in flank; and lord Cathcart and Sir R. Wilson were listening to him, when a ball struck his thigh, and almost carried his leg off, passed through his horse, and shattered his other leg to pieces. He gave a deep groan at first; but, immediately after the first agony of pain was over, he spoke with the utmost tranquillity, and called for a cigar. He was brought safely to Laun, where he seemed to be going on well, till a long conference took place between him and three or four of the allied generals, by which

he was completely exhausted. Soon after this he became extremely sick, and hourly grew worse. Through the whole of his sufferings he bore his fate with heroism, and appeared to those with whom he conversed to endure but little pain, from his extreme composure and calmness. He died the 3d of September 1813.

MOREAU, a post town of Saratoga county, New York, on the Hudson; sixteen miles north-east of Balston-Spa, fifty north of Albany. Population 1347.

MOREBAT, a sea-port on the southern coast of Arabia, on a bay bounded by a cape of this name. The town is about two miles south of the cape. The bay is the safest, and provisions may be had here on the coast, but the inhabitants carry on little trade. Long. 55° 4′ E., lat. 17° N.

MORELSE (Paul), an eminent painter, born at Utrecht in 1575. He studied painting under Michael Mirevelt. He was very successful, in portraits, historical subjects, and architecture, after he had improved his taste in Italy. There are some excellent wood-cuts in chiaro-scuro by his artist, who died in 1638.

MOREL′, *n s.* } Lat. *morilla (solanum);*
MOREL′LA. } Fr. *morelle.* A plant; an acid kind of cherry.

The *morella* cherry is commonly planted against north walls, where they grow large and hang long, as they are commonly not wanted till late in the season to preserve. *Abercrombie.*

Morel is a black cherry, fit for the conservatory before it be thorough ripe, but it is bitter eaten raw. *Mortimer.*

Spungy *morels* in strong ragouts are found,
And in the soup the slimy snail is drowned.
Gay.

MOREL (Andrew), a very eminent antiquary, born at Berne in Switzerland. Having a strong fancy for the study of medals, he travelled through several countries, and made large collections. In 1683 he published, at Paris, in 8vo., Specimen Universæ rei Nummariæ Antiquæ. The great work of which this was the specimen was to be a complete collection of all ancient medals, of which he had then 20,000 exactly designed. Soon after this essay appeared Louis XIV. gave him a place in his cabinet of antiques, in which capacity he brought himself into great danger by speaking too freely of M. Louvois on some private account, and he was committed to the Bastile for three years; nor was he released until the death of Louvois, when the canton of Berne interceded in his favor. He afterwards accepted an invitation from the count of Schwartzburg in Germany, by whom he was furnished with every thing necessary for carrying on his grand work. In 1703 he died; and in 1734 was published at Amsterdam part of this collection, in two volumes, folio, under the title of Thesaurus Morellianus, sive familiarum Romanorum numismata omnia, diligentissimè undique conquisita, &c. Nunc primum edidit et commentario perpetuo illustravit Sigibertus Havercampus These volumes contain an explication of 3539 medals, engraved, with their reverses.

MOREL (Frederick), interpreter in Greek and Latin, and printer to the king of France, was heir to Vascosan, whose daughter he had married. He was born in Champagne, and he died at an advanced age at Paris in 1583. His sons and grandsons also distinguished themselves in literature, and maintained the reputation which he had acquired by printing. The edition of Gregory of Nyssa, by his son Claude Morel, is held in great estimation by the learned.

MOREL (Frederick), son of the preceding, and still more celebrated than his father, was professor and interpreter to the king, and printer of the Hebrew, Greek, Latin, and French languages. He was so devoted to study, that when he was told his wife was at the point of death, he would not stir till he had finished the sentence which he had begun. Before it was finished, he was informed that she was actually dead; 'I am sorry for it,' replied he coldly, 'she was an excellent woman.' He acquired great reputation from his works, which were numerous and well executed. From the MSS. in the king's library, he published treatises of St. Basil, Theodoret, St. Cyrille, &c., and accompanied them with a translation. His edition of the works of Œcumenius and Aretas, in 2 vols. folio, is much esteemed. He died June 27, 1630, aged seventy-eight.

MOREL (William), regius professor of Greek, and director of the French king's printing house at Paris, died in 1564. He composed a Dictionnaire Grec-Latin-François, which was published in 4to., in 1622, and some other works which indicate very extensive learning. His editions of the Greek authors are exceedingly beautiful.

MORELL (Thomas), D. D. and F. SS. R. and A., a learned English divine and lexicographer, born in 1701. He published, 1. An edition of Ainsworth's Latin Dictionary, 2. A useful abridgement of it; London 1774: 8vo. 3. Hedericus's Greek Lexicon. He also wrote, 4. Annotations on Locke's Essay, which appeared after his death; and he selected the scriptures for Handel's Oratorios. He died in 1784

MORENA, in ancient geography, a district of Mysia, in the Hither Asia. A part of it was occupied by Cleon, formerly at the head of a band of robbers, but afterwards priest of Jupiter Abretenus; and enriched with possessions, first by Antony, and then by Julius Cæsar.

MORENA, SIERRA, Montes Marianæ, a mountain-chain of the Peninsula, extending along great part of the south of Spain and Portugal, and separating the valleys of the Guadiana and Guadalquiver. Commencing on the eastern border of La Mancha, it runs westward along the boundaries of that province and Estremadura, and separates them from Jaen, Cordova, and Seville. On the borders of Portugal it is crossed by the Guadiana; but soon re-appears to the west, separating Alentejo from Algarva, and terminates at the Atlantic in Cape St. Vincent. The chief parts are the Sierra de Cordova and the Guadalcanal mountains in Spain, and the Serras de Caldeirao and Monchique in Portugal. No part of its elevation exceeds 3000 feet, and in many places of its eastern and western extremities it is much less. Its central part occupies nearly the whole of Cordova. There is much romantic and gloomy scenery on the great roads that run near, and the extensive forests, rocks,

and precipices, afford a secure retreat for robbers. In 1767 the Spanish minister, Olavide, attempted to settle here some colonies of French and Germans: they consisted of about 10,000 individuals, spread over a space of 1350 square miles; but, on his removal from office, they were neglected, and soon decayed. In 1791, however, the settlers here amounted to 6200, employed partly in tillage, and partly in manufactures of glass, linen, and woollen. The district inhabited is part of the province of Jaen, and the chief place Carolina.

MOREO'VER, *adv.* More and over. Beyond; besides; likewise; over and above.

> *Moreover* by them is thy servant warned.
> *Psalm* xix. 11.
> *Moreover* he hath left you all his walks.
> *Shakspeare.*
> He did hold me dear
> Above this world; adding thereto, *moreover*,
> That he would wed me, or else die my lover. *Id.*

MORERI (Lewis), compiler of the Historical Dictionary, was born at Barge-mont in Provence, 1643. He studied rhetoric and philosophy at Aix, and divinity at Lyons. At eighteen years of age he wrote a small piece, entitled Le Pays d' Amour, and a collection of fine French Poems, entitled Doux plaisirs de la Poesie. He learned Spanish and Italian; and translated out of Spanish into French the work entitled La Perfection Chretienne de Rodriguez. Being ordained priest, he preached at Lyons, and undertook, when thirty years of age, a new Historical Dictionary, printed at Lyons in one vol. folio, 1673. But his continual labor impaired his health, and he died in 1680, aged thirty-seven. His second volume was published after his death; and four more have since been added. He left also some other works.

MORES (Edward Rowe), a learned English antiquary, born at Tunstall, in Kent, in 1730, and educated in London, and Queen's College, Oxford. He published a curious relic of antiquity, entitled Nomina et Insignia Gentilitia Nobilium, Equitumque, sub Eduardo I. rege militantium. Oxon 1748. 4to. In 1752 he was elected a fellow of the Society of Antiquaries; and projected the Equitable Society for Insurance on Lives and Survivorship, by annuities, He wrote, 1. The History and Antiquities of Tunstall in Kent; 2. A Dissertation on Founders and Foundries: and other works. He died in 1778.

MORESBY, a harbour of Cumberland, above Whitehaven, in and near which many remains of antiquity have been dug up, such as altars and stones, with inscriptions; and several caverns have been found called Pict's Holes. It is supposed to have been a Roman fortification.

MORESK, Moresque, or Morisko, a kind of painting, carving, &c., executed after the manner of the Moors; consisting of several grotesque pieces and compartments promiscuously intermingled, containing a wild resemblance of birds, beasts, trees, &c. These are also called arabesques, and are particularly used in embroideries, damask work, &c. See Arabesque.

MORGAGNI (John Baptist), M. D. and F. R. S., first professor of anatomy in the university of Padua, and member of several of the most eminent societies in Europe, was born in 1682, at Forli, in Romagna. He commenced his studies at Forli, but soon removed to Bologna, where he obtained the degree of M. D. when he had but just reached his sixteenth year. His peculiar taste for anatomy found an able preceptor in Valsalva; and such was the progress he made under him, that when but twenty years of age he himself taught anatomy with high reputation. Soon, however, the fame of his prelections, and the number of his pupils, excited the jealousy of the professors, and gave rise to invidious persecutions. But his abilities and prudence gained him a complete triumph; and all opposition was finally teminated on his being appointed by the senate of Bologna to fill a medical chair. But the duties of this important office did not occupy the whole of his time. He soon communicated the fruits of his labors to the public in his Adversaria Anatomica, the first volume of which was published in 1706, the second and third in 1717, and the three last in 1719. This excellent work spread his fame far beyond the limits of Bologna. The republic of Venice offered him the second medical chair in the university of Padua; and doubled the emoluments. While in this department, he published his Nova Institutionum Medicarum Idea, Padua, 1712, and soon after he rose to be first professor of anatomy in that celebrated university. Although he was thus finally settled at Padua, he gave proofs of his gratitude to Bologna, by exerting his utmost efforts to establish its academy, of which he was one of the first associates; and he enriched their publications with several valuable papers. Soon after this, the royal societies of London and Paris received him among their number. Not long after, he began his Epistolæ Anatomicæ, the first of which is dated Padua, 1726. He was not more eminent as an anatomist than as a successful physician. In 1760, when he was near eighty years of age, he published his large and valuable work De Causis et Sedibus Morborum per Anatomiam Indagatis. This last and most important of all his productions will afford convincing evidence of his industry and abilities to latest posterity. He also published, at different periods, several miscellaneous pieces, which were afterwards collected into one volume, and printed under his own eye at Padua, in 1765. He was endeavouring to collect for publication a complete edition of all his works, when, after he had nearly arrived at the ninetieth year of his age, death put a period to his long and glorious career, on the 5th of December 1771.

MORGANA, Fata. See Fata Morgana.

MORGUES (Matthew de), Sieur de St. Germain, preacher to Louis XIII., and almoner to Mary de Medicis, was born in Languedoc, in 1582. He wrote the Life of Louis the Just, and several severe satires against cardinal Richelieu; particularly one in defence of Mary de Medicis, whom he followed out of the kingdom, and did not return till after Richelieu's death. He died in Paris in 1670.

MORHOFF (Daniel George), a learned German, born at Wismar in Mecklenburgh, in 1639. The duke of Holstein, when he founded a uni-

versity at Kiel, in 1665, made him professor of eloquence and poetry, and afterwards of history; and, in 1680, librarian to the university. He was the author of many orations, dissertations, theses, and poems; but his chief work was his Polyhistor, sive de Notitia Auctorum et rerum Commentarii, first published at Lubec in 1688; which has been greatly enlarged since his death in 1691, and gone through several editions. The best is that by John Albert Fabricius, 3 vols. 4to. 1732.

MORIAH, an eminence of Jerusalem, on which Abraham went to offer his son, and David intended to build the temple. The threshing floor of Araunah was upon it, originally narrow, so as scarce to contain the temple, but enlarged by ramparts, and surrounded with a triple wall, so as to add great strength to the temple. It may be considered as a part of Mount Sion, to which it was joined by a bridge and gallery. *Josephus.*

MORILLOS (Bartholomew), a native of Seville in Spain, born in 1613. After having cultivated painting with success in his own country, he travelled into Italy, where he was greatly admired for a style peculiar to himself. The Italians compared him to the celebrated Paul Veronese. On his return to Spain, Charles II. brought him to court, intending to make him his first painter; but he declined the offer. He died in 1685, aged seventy-two.

MORIN (John Baptist), physician and regius professor of mathematics in Paris, was born at Villefranche in Beausolois, in 1583. After commencing M. D. at Avignon, he went to Paris, and lived with Claude Dormi bishop of Boulogne, who sent him to examine the mines of Hungary; and thereby gave occasion to his first production, Mundi sublunaris Anatomia, published in 1619. Upon his return to the bishop, he contracted an attachment to judicial astrology, concerning which he furnished the world with a great number of books not worth enumerating. He died in 1656, before he had finished the favorite labor of his life, his Astrologia Gallica. Louisa Maria de Gonzaga, queen of Poland, gave 2000 crowns to carry on the edition; and it appeared at the Hague in 1661, in 1 vol. folio.

Morin (John), a learned Frenchman, born at Blois, of Protestant parents, in 1591; but converted by cardinal du Perron to the Catholic religion. He published, in 1626, Exercitations upon the origin of Patriarchs and Primates, and the ancient usage of ecclesiastical censures; dedicated to pope Urban VIII. In 1628 he superintended the edition of the Septuagint Bible, with Nobilus's version; and prefixed to it a preface, in which he treats of the authority of the Septuagint, and prefers the version made at Rome by order of Sixtus V. to the present Hebrew text, which he affirms has been corrupted by the Jews. About the same time he gave a French History of the Deliverance of the Church by the emperor Constantine, and of the temporal greatness conferred on the Roman church by the kings of France. He afterwards published Exercitations upon the Samaritan Pentateuch, and revised the Samaritan Pentateuch for the Polyglot then preparing at Paris. He was greatly caressed at Rome, to which he was invited by cardinal Barberini, and whence, after living nine years, he was recalled by cardinal Richelieu, and died in Paris in 1659. His works are very numerous; and some of them much valued for their oriental learning.

Morin (Lewis), M. D., was born at Mans in 1635. He went on foot to Paris to study philosophy, and collected herbs during the journey. He afterwards studied physic, and lived like an anchorite; bread, water, and a few fruits, being his whole subsistence. Paris was to him a hermitage, with this exception, that it furnished him with books, and with the conversation of the learned. He received the degree of M. D. in 1662. Madam de Guise chose him for her first physician, and the Academy of Sciences for one of its members. He died A. D. 1715, aged eighty. He left a library valued at 20,000 crowns, an herbal, and a cabinet of medals; which seem to have been his whole fortune. An index to Hippocrates, in Greek and Latin, much more copious and better finished than that of Pinus, was found among his papers.

Morin (Peter), a learned French critic, born at Paris in 1531. He went into Italy and was employed by the learned Paul Manutius in his printing-house in Venice.—He afterwards taught Greek and cosmography at Vincenza, whence he was called to Ferrara by the duke. St. Charles Borromeus, informed of his profound knowledge in ecclesiastical antiquities, offered him his patronage, and engaged him to go to Rome in 1575. The popes Gregory XIII. and Sixtus V. employed him on an edition of the Septuagint, 1587, and on one of the Vulgate, 1590, in folio. He also spent much of his time on an edition of the Bible translated from the Septuagint, and published in Rome, 1588, in folio; on an edition of the Decretals to the time of Gregory VII., published at Rome, 1591; and on a Collection of General Councils, likewise published at Rome, 1608, 4 vols. He died in Rome 1608, aged seventy-seven. His character was open, simple, sincere, gentle, and honest; his temper was equal and agreeable. He left behind him Un Traité du bon Usage des Sciences, and some other writings, published by F. Quetif, a Dominican friar, in 1675.

Morin (Simon), a celebrated fanatic of the seventeenth century, born at Richemont, near Aumale. He had been clerk to M. Charron, general paymaster of the army; and, after broaching his whimsies in conversation, had got them privately printed, in 1647, under the title of Pensées de Morin dediées au Roi. This book is a medley containing the chief errors which were afterwards condemned in the Quietists; but Morin carries them to a much greater length; for he affirms 'that the most enormous sins do not remove a sinner from the state of grace, but serve on the contrary to humble the pride of man.' He adds, 'that there would soon be a general reformation in all nations, effected by the second coming of Jesus Christ, and Morin incorporated with him.'—He was in prison at Paris when Gassendi's friends were writing against the astrologer John Baptist Morin, whom they upbraided

with being the brother of this fanatic. This was about 1650; after which Simon was set at liberty as a visionary, and suffered to continue so till 1661, when Des Marets de St. Sorlin, who, though a fanatic and visionary himself, had conceived a violent aversion to him, discovered his whole scheme, and had him taken up. Des Marets pretended to be one of his disciples, and carried his treachery so far as to acknowledge him for 'the Son of man risen again.' This so pleased Morin, that he conferred upon him the office of being his harbinger, calling him John the Baptist revived. Then Des Marets impeached him; upon which Morin was tried, and condemned to be burnt alive. This barbarous sentence was executed at Paris, March 14th, 1663; and after making the amende honorable in his shirt, with a cord about his neck and a torch in his hand, he was burnt alive, together with his Pensées, and all his papers; and his ashes were thrown into the air. His accomplices, too, were condemned to assist at his execution, and to serve in the galleys for life, after having been whipped by the hangman, and marked with a burning iron with fleurs de lis upon both shoulders. Morin gave out that he would rise again the third day; which made many gather together at the place where he was burnt.

MORIN (Stephen), minister of the Protestant reformed religion at Caen, his birth place, was, for his learning, admitted a member of the Academy of Belles Lettres in that city, notwithstanding an express law which excluded Protestants. After the revocation of the edict of Nantes, he retired to Leyden in 1685, and thence to Amsterdam, where he was appointed professor of oriental languages. He died in 1700, aged seventy-five. He published eight dissertations in Latin on subjects of antiquity, which are extremely curious. The Dordrecht edition of 1700, 8vo., is the best. He wrote likewise the Life of Samuel Bochart.

MORINA, in botany, a genus of the monogynia order, and diandria class of plants; natural order forty-eighth, aggregatæ: COR. unequal; CAL. of the fruit monophyllous and dentated; that of the flower bifid; SEED one under the latter.

MORINDA, in botany, a genus of the monogynia order, and pentandria class of plants: natural order forty-eighth, aggregatæ. The flowers are aggregate and monopetalous; the stigmata bifid; fruit plums aggregate, or in clusters.

MORINI, an ancient nation of Gallia Belgica, who lived on the coast of the British Ocean. They were styled extremi hominum by the Romans, from their situation on the extremities of Gaul. They had two cities.

MORINIERE (Adrian Claud Le Fort, De la), an elegant French writer, born in Paris in 1696. He wrote, 1. Choix des Poesies Morales; 2. Bibliotheque Poetique; 3. Passe-Tems Poetiques, Historiques, et Critiques. He died in 1768.

MORINORUM CASTELLUM, in ancient geography, or simply Castellum (Antonine), a city of Gallia Belgica, belonging to the Morini, situated on an eminence, with a spring of water on its top; now called Mont Cassel in Flanders.

MO'RION, *n. s.* Fr. *morion;* Ital. *morione.* A helmet or casque; armour for the head.

For all his majesty's ships a proportion of swords, targets, *morions,* and cuirass of proof should be allowed. *Raleigh.*

Polished steel that cast the view aside,
And crested *morions* with their plumy pride.
Dryden.

MORIS'CO, *n. s.* Span. *morisco.* A dancer of the Moorish or morris-dance, which see.

I have seen
Him caper upright like a wild *morisco,*
Shaking the bloody darts, as he his bells
Shakspeare.

MORISON (Robert), M. D., professor of botany at Oxford, was born in Aberdeen in 1620, educated at the university there, and professed philosophy for some time in it; but became chiefly famous for his skill in botany. The civil wars obliged him to leave his country, after he had signalised his zeal for the king, in a battle fought between the inhabitants of Aberdeen and the Presbyterian troops, on the bridge of Aberdeen, in which he received a dangerous wound on the head. As soon as he was cured of it, he went into France; and, fixing in Paris, he applied assiduously to botany and anatomy. He was introduced to the duke of Orleans, who gave him the direction of the royal gardens at Blois. He exercised this office till the death of that prince, and afterwards went over to England in 1660. Charles II., to whom the duke of Orleans had presented him at Blois, sent for him to London, and gave him the titles of his physician, and professor royal of botany, with a pension of £200 a year. The Præludium Botanicum, which he published in 1669, procured him so much reputation that the university of Oxford invited him to the professorship of botany in 1669; which he accepted, and acquitted himself in it with great ability. He died at London in 1683, aged sixty-three. He published a second and third part of his History of Plants in 2 vols. folio, entitled Plantarum Historia Oxoniensis Universalis.

MORISONIA, in botany, a genus of the polyandria order, and monadelphia class of plants: natural order twenty-fifth, putaminea: CAL. single and bifid: COR. tetrapetalous; pistil one; berry having a hard bark, unilocular, polyspermous, and pedecellated.

MOR'KIN, *n. s.* Among hunters, a wild beast, dead through sickness or mischance.—*Minsheu and Bailey.*

MORLAIX, a large and well built town in France, in the department of Finisterre, situated about five miles from the sea, on a river of this name, which forms a harbour, and by which coasters, or other small vessels of 100 tons, come up to the town. Larger vessels find a safe anchorage in the spacious bay, where there is a fort (Fort Taureau) and a small town called Viniec. Morlaix has two large streets; and on the bank of the river there is a fine quay, bordered with handsome houses, along which there extends a row of piazzas, forming an agreeable promenade, called La Lance, and serving also as an exchange. The public buildings are churches of no great architectural beauty, and an hospital.

The trade embraces cattle, flax, hemp, and linen, and its manufactures of paper, tobacco, and leather. Morlaix was appropriated to the reception of flags of truce from England in 1810, and often during the late war. It was the birth-place of Moreau. Population 10,000. Thirty-four miles E. N. E. of Brest.

MORLAND (George), an ingenious, dissipated, and unfortunate painter. As he had no other education than what was connected with the pencil and pallet, he shunned the society of the well-informed and the well educated; and his pictures accordingly are taken, for the most part, from low life, and from the most humble, if not the most shocking, situations in which mankind consort. The following anecdote will give a sufficient view of Morland's character. 'He was found (says his biographer) at one time in a lodging in Somer's-Town, in the following extraordinary circumstances; his infant child, that had been dead nearly three weeks, lay in its coffin in one corner of the room; an ass and foal stood munching barley-straw out of the cradle; a sow and pigs were solacing themselves in the recess of an old cupboard; and himself whistling over a beautiful picture that he was finishing at his easel, with a bottle of gin hung up on the side, and a live mouse sitting (or kicking) for its portrait.' His dissipated habits at length led him into the king's-bench prison, where his talents were laid under contribution by frame-makers, picture-dealers, and others, who taking advantage of his weak addiction to liquor, indulged his caprice and his wants; taking in return the ingenious productions of his pencil. These they sold again to great profit; and when some of them, more speculative than the rest, released him from imprisonment, it was only to immerse him in a private house, and take to themselves all the benefit of his labors; preventing any knowledge to the world of the place where he resided, and keeping him in almost a constant state of intoxication. It could not be expected, that in such a mode of existence the vital spark should long support the bodily frame. His constitution rapidly gave way, and he died in 1804 before he had reached his fortieth year.

MOR'LING, *n. s.* } French, *mort*. Wool
MORT'LING. } plucked from a dead sheep.—*Minsheu and Ainsworth.*

MORN, *n. s.* } Sax. manne, morgen; Goth. *morgan;*
MOR'NING, *n. s.* & *adj.* } Dan. and Teut. *morgen*. The first, or
MOR'NING-GOWN, *n. s.* } early part of the day: early: morning-gown and
MOR'NING-STAR. morning-dress are a dress used, and the most remarkable star in the morning, i. e. Venus.

Let us go down after the Philistines by night, and spoil them unto the *morning* light. 1 *Sam.* xiv. 36.

Bright as doth the *morning-star* appear,
Out of the East with flaming locks bedight,
To tell the dawning day is drawing near.
Faerie Queene.

She looks as clear
As *morning* roses newly washed with dew.
Shakspeare.

The cock, that is the trumpet to the *morn*,
Doth with his lofty and shrill-sounding throat
Awake the god of day. *Id. Hamlet.*

By the second hour in the *morning*
Desire the earl to see me. *Id. Richard III.*

What shall become of us before night, who are weary so early in the *morning*?
Taylor's Guide to Devotion.

Can you forget your golden beds,
Where you might sleep beyond the *morn*? *Lee.*

The *morning* is the proper part of the day for study. *Dryden.*

Seeing a great many in rich *morning gowns*, he was amazed to find that persons of quality were up so early. *Addison.*

Friendship shall still thy evening feasts adorn,
And blooming peace shall ever bless thy *morn*.
Prior.

The twining jessamine and blushing rose,
With lavish grace their *morning* scents disclose. *Id.*

All the night they stem the liquid way,
And end their voyage with the *morning* ray.
Pope.

Every *morning* sees her early at her prayers; she rejoices in the beginning of every day, because it begins all her pious rules of holy living, and brings the fresh pleasures of repeating them. *Law.*

Frae *morn* to e'en it's nought but toiling,
At baking, roasting, frying, boiling;
And though the gentry first are stechin,
Yet even the ha' folk fill their pechan
Wi' sauce, ragouts, and sic like trashtrie,
That's little short o' downright wastrie.
Burns.

By night I heard them on the track,
Their troop came hard upon our back,
With their long gallop, which can tire
The hound's deep hate, and hunter's fire;
Where'er we flew they followed on,
Nor left us with the *morning* sun. *Byron.*

MORNAY (Philip de), lord of Plessis-Marly, was born at Buby or Bishuy in Upper Normandy, November 5th, 1549, and educated at Paris. He made a rapid progress in the learned languages, theology, and the belles lettres. He was at first destined for the church; but the principles of Calvinism, which he had imbibed from his mother, effectually excluded him from ecclesiastical preferment. After the horrible massacre of St. Bartholomew he made the tour of Italy, Germany, England, and the Low Countries; and on his return joined the king of Navarre, then leader of the Protestant party, afterwards the celebrated Henry IV. This prince sent him to conduct a negociation with Elizabeth, queen of England; and left him wholly to his own discretion in the management of that business. He was successful in almost every negociation, and conducted them like an upright as well as able politician. He tenderly loved Henry IV.; spoke to him on all occasions as to a friend; and did every thing in his power to raise him to the throne. But, when he renounced the Protestant faith, he reproached him in the bitterest manner, and retired from court. Henry still loved him, and was extremely affected with an insult which he received in 1597 from one St. Phal, who assaulted and left him for dead. Mornay's knowledge, probity, and valor, made him the soul of the Protestant party, and procured him the appellation of the pope of the Huguenots. He defended their doctrines by speech, writing, and military prowess. One of his books, on the Iniquity of the Mass, having

stirred up all the Catholic divines, he refused to make any reply to their criticisms except in a public conference. This was appointed to be held in 1600, at Fountainbleau, where the court then was. The two champions were, Du Perron, bishop of Evreux, and Mornay. After many arguments and replies on both sides, the victory was adjudged to Du Perron. The Calvinists, however, claimed the victory; and this conference, instead of putting an end to the differences, was productive of new quarrels among the controversialists, and of much profane wit among the libertines. He retired to Saumur, an important place on the Loire, of which he was governor; his attention being constantly occupied in defending the Huguenots. When Louis XIII. was making preparations against the Protestants, Mornay wrote him a letter, dissuading him against such a measure, in consequence of which remonstrance he was deprived of the government of Saumur. He died November 11th, 1623, aged seventy-four, at his barony of Foret sur Seure, in Poitou. The Protestant cause never had an abler supporter, or one who did it more credit by his virtues and abilities. He wrote, 1. Un Traité de l' Eucharistе, 1604, in folio. 2. Un Traité de la verité de la Religion Chretienne, 8vo. 3. La Mystere d'Iniquité, 4to. 4. Un Discours sur le droit pretendu par ceux de la maison de Guise, 8vo. 5. Memoirs from 1572 to 1629, 4 vols. 4to. David des Liques published his life in 4to.

The MORNING-STAR is Venus when a little to the west of the sun; that is, when she rises a little before him. In this situation she is called by the Greeks Phosphorus; by the Latins Lucifer, &c. See ASTRONOMY.

MOROCCO, also called West Barbary, includes the kingdoms of Fez and Morocco, properly so called. It extends eastward from the Straits of Gibraltar to the borders of Algiers, and southwards to the Great Sahara; or from about 28° to 36° of lat., and from 1° 30′ to more than 10° of W. long. The coast along the Mediterranean is upwards of 200 miles, and that along the Atlantic nearly 600. Its breadth varies from 200 to 400 English miles; but this space includes the province of Suse, rather a nominal than a real part of this empire. It is bounded on the north and west by the Mediterranean and the Atlantic; Algiers forms a part of the eastern frontier, and on all the other sides it terminates in the wide expanse of the deserts.

The grand geographical characteristic of this country is the chain of the Atlas, by which it is traversed in its whole extent. Its summits are covered with perpetual snow, and are estimated at not less than 13,000 feet above the level of the sea. It descends in Eastern Barbary; but here it contains mines of iron, tin, antimony, and copper; which, however, with the exception of antimony, are seldom worked; but the latter is extensively used in cosmetics. Mineral salt occurs in great abundance; and makes a considerable article of export to Soudan. Morocco is traversed by the great chain of Atlas, as already mentioned in the general view. A comparatively plain or level country is comprised between the Atlas chain and the sea, of about 400 or 500 miles in length, and from fifty to 100 in breadth, which forms the most fertile and populous part of the empire. Beyond the Atlas it includes the provinces of Darah, Tafilelt, and Sigilmessa, which at first are fertile, abounding in dates and wool, but gradually pass into the Great Sahara. This region forms a kind of gradual transition from the fertile plains on the northern coast to the barren deserts of the interior. Dates are its chief produce, and at once form the principal food of the inhabitants and their most valuable article of commerce. The barbarous races here, in proportion as they are removed from the seat of empire, shake off the restraint of sovereign authority, till at last they set the power of the sultan at defiance.

Mr. Jackson states the climate of Morocco to be healthy and invigorating. From March to September the atmosphere is scarcely ever cloudy, and even in the rainy season, from September to March, there is seldom a day in which the sun does not shine during some part of it. The climate on the opposite of the range is much hotter and much less refreshed by rain than that on the northern, while it is at the same time more exposed to the hot winds from the arid plains of the interior. Some of the western districts of Barbary, Ali Bey says, remind him of the green fields of England, notwithstanding their neglected husbandry; but this character is far from being applicable to the whole; for that celebrated traveller and his attendants had nearly perished in one of the eastern deserts. In reference to this, he observes, 'there is no animal of any kind to be seen in this desert, neither quadrupeds, birds, reptiles, nor insects, and the traveller who is obliged to pass through it is surrounded by the silence of death.' The climate, it deserves to be remarked, also, is sometimes subject to great heat, for Ali Bey says, that, in the beginning of June, Reaumur's thermometer stood at 26·7° in the tent, though the day was cloudy. This is about 92° of Fahrenheit.

The principal streams that descend from the north-west side of the Atlas chain are the Seboo, the Morbea, the Tensift, and the Suse, in Morocco, all of which fall into the Atlantic; and the Mouluia into the Mediterranean. The superior fertility of this part of Africa is obviously produced by the more copious supply of moisture from the chain of Atlas; for wherever that supply either fails, or is more scanty, the soil, which is light and sandy, becomes an arid desert, similar to those in the more southern parts. The soil in other districts, however, consists of a pure clay, about as destitute of vegetation as a brick floor; and in others the desert is covered with a kind of calcareous stone, which Ali Bey considers as a volcanic production.

The vegetable productions are not materially different from those of southern Europe; the chief grain being wheat and barley. The crops are generally good, and there is only one annual harvest. Several kinds of pulse are cultivated, with esculent vegetables, herbs and fruit; and, in addition to those on the opposite side of the Mediterranean, may be named the palm-tree and lotus.

The domestic animals of North Africa are also

allied to those of Southern Europe, with the addition of the camel. This animal is in common use throughout Morocco. The maherry, or herie, desert camel, is a light and swift species, much used for travelling; and the breed of horses is praised. They were the boast of ancient Numidia, and are still held in high estimation. Asses and mules are chiefly employed in domestic labor. Cattle are also kept, and large flocks of sheep on the sides of the mountains; while goat skins supply the Morocco leather, so much admired. The wild animals of these regions present an extensive theme. The Numidian lion maintains his ancient character for strength and ferocity; and it often requires all the precaution and ingenuity of the inhabitants to guard against him. The panther, the wild boar, and the hyæna, are common. The antelope, or gazel, bounds over the precipices, and has become their highest term for female beauty. The jerboa and the jerd are two small animals, not much bigger than a rat, which burrow in the ground, and are said to be good food. Besides these, there are apes, jackals, foxes, hares, serpents, lizards, and cameleons. Jackson describes an animal called the Aoudad, which inhabits the steep and inaccessible cliffs of Mount Atlas, and is about the size of a calf, with a beautiful beard growing from the lower part of the neck; he is very wild, and rarely taken alive. The serpent tribes are numerous, and some of them furnished with most deadly poison. Others are suffered to live in the houses without molestation, and in some places are even considered a benediction on the household. The boa constrictor is seen on the south of the Atlas, from sixty to eighty feet long. The most destructive of this class of reptiles are the scorpions, which are numerous in all the Barbary states, but the sting is less venomous on the north than on the south side of the mountains.

Ostriches are taken in the southern parts of Barbary, and their feathers more valuable than in any other part of Africa. Besides these there are pelicans, eagles, flamingoes, storks, herons, bustards, wild-geese, pigeons, turtle-doves, ring-doves, partridges, plovers, and a variety of small birds. The insect tribes are numerous, beautiful, and varied. But the most formidable, from its numbers and resistless progress, is the locust, which frequently proves a most terrible enemy. They are bred on the confines of the great desert, but at irregular intervals are impelled by necessity towards the cultivated tracts of the north.

Under the name of Mauritania this country was once occupied by a hardy Nomadic race, who were never thoroughly subdued by the Romans. At a later period it yielded to the arms of the Saracens, whose different dynasties disputed its possession. At length a re-action took place from the vast deserts south and east; and, in the eleventh century, a chief of Lemptuna assumed the character of a reformer of the Mahometan religion, and acquired so high a reputation that all the neighbouring tribes flocked to his standard. His followers, under the appellation of Almoravides, conquered Morocco, Barbary, and even Spain, thus establishing a great empire, entitled that of Mogreb, or the West. In the following century they were supplanted by a new dynasty, called the Almohades, who soon found other rivals. At length, in 1547, an Arabian chief of the race of Scheriffs, or descendants of Mahomet, ascended the throne of that region, which his posterity have ever since maintained and established here perhaps the most complete despotism on the face of the earth.

Different statements have been made as to the present population of Morocco. That of Mr. Jackson, many years British consul at Mogadore, makes it much greater than any other writer. He instituted numerous enquiries on the subject, and was allowed to consult the 'Imperial Register of the inhabitants of each province.' He gives the following as the result:—

	Population.
City of Morocco	270,000
Fez	380,000
Mequinez	110,000
Other cities	235,000
Province of Erreef	200,000
El Garb	200,000
Benihassen	300,000
Tedla	450,000
Fez	1,280,000
Duquella	966,000
Temsena and Shawia	1,160,000
Abda	500,000
Shedma	550,000
Morocco	1,250,000
Haha	708,000
Draha	350,000
Suse	2,427,000
Tafilelt	650,000
Brebers	3,000,000
	14,986,000

Chenier and Hoest conceive that the whole number of this people cannot exceed 5,000,000 or 6,000,000. In particular the city of Morocco, estimated at 270,000, cannot, they suppose, contain more than 30,000. From these and other circumstances it may be doubted whether these archives are not referrible to a former period.

The *emperor*, as we have before observed, is absolute; there is neither an ulema here as in Turkey, at the head of the religion, nor even any divine or public council at the head of the state. All is at the single command and determination of the sovereign, and no one is supposed to have either life or property but at his disposal. He orders one person to do this, and another that, according to his caprice. Some of these monarchs have been said to consider adherence to their engagements as an unlawful check on their power. 'Takest thou me for an infidel,' said one of them to a traveller, 'that I must be a slave of my word?' He cannot, however, safely invade the domestic privacy of his subjects, nor shock any of those customs to which long establishment has given the force of law. He is expected also to give public audience four times a week, where he administers justice to all, even the poorest, on horseback. Yet prudent persons usually think it more eligible to acquiesce in the sentence of the cadi, than to afford to the emperor any insight into their private affairs. Muley

Ismael greatly contributed to establish the present determined and ferocious character of this power; he first employed negro mercenaries among his regular troops. Besides these there are now 12,000 to 14,000 Moors (chiefly cavalry) in the emperor's service, and might be disciplined to make excellent soldiers. Ali Bey states the imperial revenue at £1,250,000.

The trade carried on between England and these northern regions of Africa has not been hitherto considerable; but English articles are now in request in many parts. With a view of encouraging commerce the emperor, in February 1818, issued a decree, granting to European merchants the liberty of settling in his dominions, promising them protection, and commanding the governors and magistrates to take care that they were not defrauded by the natives. The imports are sugar, spices, iron, tin, lead, copper, woollens, linens, raw silk, gums, hardware, glass, beads, toys, and various other minor articles, besides Mexican dollars, which, in 1804, amounted to 99,000. The exports, almonds, gums, skins and hides, bees' wax, olive oil, wool, ostrich feathers, pomegranate peels, and dates. The ports with which Morocco chiefly communicates are London, Amsterdam, Marseilles, Leghorn, Lisbon, Cadiz, and Teneriffe. Jackson states the value of the imports, in 1804, at £151,450, and of the exports £127,679. Besides the trade with European nations a considerable intercourse is carried on with the interior of Africa by caravans, which travel to Tombuctoo and Soudan. The articles with which these are freighted are salt, cloths, toys, beads, and various European goods; for which they bring in return gold, ivory, gums, and slaves.

The *religion* of Morocco is the most intolerant Mahometanism; under pretence of which fanatics constantly raise themselves to the character of saints by working pretended miracles. There is not, however, any body of priests, like the Ulema; while they generally indulge to the utmost of their power in the number of their wives and concubines. The same sanctity is usually ascribed to idiots. The state of knowledege in such a community may be easily conceived.

'Those rich plains of Fez and Morocco,' says M. Sismondi, 'which, five centuries ago, were illumined by so many academies, so many universities, and so many libraries, are now reduced to deserts of burning sand, for the possession of which tyrants contend with tigers. All the gay and fertile shores of Mauritania, where commerce, the arts, and agriculture, had arisen to the highest prosperity, are now the nests of pirates, who spread terror on the seas, and who retire from their labors to the most shameful debaucheries, till the plague annually returns to mark out its victims, and to avenge offended humanity. In this vast extent of country nothing is to be found but ignorance, slavery, terror, and death.' Another writer observes, 'Nor have these doctrines had less influence on the political state, than on the physical scenery or domestic manners of these regions, and hence the barbarous politics of a nation of tyrants and slaves, where each man is alternately degraded by the power of those above him, to the one state, or raised by the abjectness of those below him, to the other, presents but an uninviting picture to the enlightened mind, and can afford little satisfaction, except by increasing our attachment to that mild system of laws, and heightening our ideas of the purity of that religion, which, as Englishmen, providence has allotted us. For, among the governments of Barbary, all the bad passions which render their possessors the scourge and terror of society—envy, jealousy, and avarice, exasperated by ferocity of temper and of manners, rendered permanent by immutable prejudices, but rarely illumined by transient flashes of magnanimity and courage—seem to rage without control in the unhappy courts of these states.'

The basis of the population is formed of what are called Moors, consisting of the original people, now mixed with their Arab conquerors, and with the tribes who have at various times poured in from the African deserts. To these is added a considerable number of the Moors whose ancestors once reigned in Spain. All these being moulded nearly into one, by the strict and uniform character of the Mahometan observances, the cities present the same gloomy aspect as in all Moorish states; that of strict seclusion of the female sex; habits of gravity and silence among the men, who meet only in the public coffee-houses; high national pride and contempt for all other people. In the country the habits of life are entirely different. There the people live chiefly in douars, or moveable villages, composed of tents, which, whenever the spot on which they are placed is exhausted, they strike, and move in search of a more productive quarter. The women are not confined; but being subjected to hard labor, tanned by the sun, and sometimes even yoked to the plough, these habits of hardihood banish every attraction.

When the Moor appears any where abroad he generally assumes a degree of solemnity, gravity, and decorum, in his outward deportment, which have little correspondence with his sentiments and actions. This character, however, is more applicable to the western, than the eastern countries, where a commercial and sea-faring life has imparted to the people activity, animation, and bustle, whilst it has not diminished their native ferocity. The Moors, though altogether strangers to literature, arts, and sciences, are frequently engaged in commerce. Mr. Jackson, who had good opportunities of becoming acquainted with the mercantile part, describes them as 'suspicious, deceitful, and cruel; they have no respect for their neighbours, but will plunder one another whenever it is in their power; they are strangers to every social tie and affection, for their hearts are scarcely susceptible of one tender impression; the father fears the son, the son, the father; and this lamenable mistrust, and want of confidence, diffuses itself throughout the whole community. The pride and arrogance of the Moors are unparalleled; for though they live in the most deplorable state of ignorance, slavery, and barbarism, yet they consider themselves as the first people in the world, and contemptuously term all others barbarians.' The

same writer, however, allows them the merit of possessing fortitude in a very eminent degree, and of acting upon their faith in the doctrines of Mahomet, in a way that would put some Christians to the blush. 'It must be confessed,' he says, 'that some of the well-educated Moors are courteous and polite, and are possessed of great suavity of manners. They are affable and communicative, where they repose confidence; and if, in conversation, the subject of discussion be serious, and the parties become warm in dispute, they have generally the prudence to turn the subject in a delicate manner; they are slow at taking offence, but when irritated are noisy and implacable. There is one noble trait in the character of this people, which I cannot avoid mentioning, that is fortitude under misfortune: this the Moor possesses in an eminent degree; he never despairs, no bodily suffering, no calamity, however great, will make him complain, he is resigned in all things to the will of God, and waits in patient hope for the melioration of his condition.'

The Moors are generally of the middle stature, but less robust than Europeans. Their legs appear clumsy, which some have supposed to arise from their always sitting cross-legged. From intermarriage, and frequent intercourse with the negroes of Soudan, their complexion is of all shades from black to white. The women of Fez are nearly as fair as Europeans, with the exception of their eyes and hair, which are always black. The females of Mequinez are proverbially handsome; and both sexes have good teeth. In some parts they dye their hands and feet with the juice of henna.

Their dress is described as consisting of a shirt and drawers, the former being worn over the latter, and reaching about to the knee. Over this they wear a caftan, or coat, which buttons down the front. The head is covered with a red cap and turban, and the feet with yellow slippers or sandals. When they go out, a piece of white cotton or silk, five or six yards long and five feet broad, called a hayk, is carelessly thrown over the head, and, when in the presence of a superior, the hayk rests on the shoulders instead of the head. The dress of the women resembles that of the men, except in the adjustment of the hayk, and the slippers being red. They also wear numerous rings, bracelets, and other ornaments. The most gaudy colors are generally preferred. Some slight modifications may take place in the different states, but this is the general Moorish costume. Marriage is conducted, as in other Mahometan countries, entirely by the parents, and the parties sometimes never see each other till after the ceremony is past. Polygamy is allowed, and the number of concubines is unlimited. In Tully's Narrative of a ten years' residence at Tripoli, it is stated that 'the Moors marry so extremely young, that the mother and her first-born are often seen together as play-mates, equally anxious and angry in an infantine game. The women here are often grandmothers at twenty-six or twenty-seven years of age; it is no wonder, therefore, that they live to see the children of several generations.'

Nearly all these regions abound in Arab pastoral tribes, who retain much of the Asiatic manners and appearance. An Arab tribe was met on its march by Col. Keating, producing a very characteristic and picturesque group. 'The men and boys naked, with long staves, drove cattle of every description blended. The camels presented the whole menage of the family; three ladies, muffled up to the eyes, sat upon the summit ridge of the awkward animal, surrounded below by the heads of the young broods, and domestic fowls dotted here and there throughout the groups. A few men, mere skin and bone, on horses nearly as décharnés as themselves, with fire-arms in their hands, and suspicion in their countenances, guarded the fair, their families, goods, and chattels.'

Another distinct class found here are the brebers, or berebbers, who inhabit the declivities of Mount Atlas, particularly the northern part of the chain. They appear to be descendants of the aboriginal inhabitants, who have been driven from the plains by foreign invasion. They live chiefly in tents, and are occupied in husbandry and keeping bees. They are a robust, nervous people, divided into various tribes, and regard with great indignation the people by whom the lower parts of the country are occupied, while the idea formed of them, by their Saracen conquerors, may be readily perceived from their character as drawn by a celebrated Arabian writer, who says, 'they are the offspring of the giant Goliah, whom they resemble in strength and wickedness.' Their language is wholly distinct from the Arabic in common use among the other tribes. It is supposed by Adelung to be the same with Tibboo, the Tuarick, and other indigenous tongues spoken in that part of Africa.

The southern sides of the Atlas are peopled by the Shelluhs, who live in towns, or villages, and are chiefly occupied in husbandry, like the brebers, but differ from them in appearance, language, and manners. They are smaller and more civilised: and several of the families are supposed to be descended from the Portuguese, who once occupied most of the towns on the west coast of Barbary. Their language is considered merely as a dialect of the brebers. In addition to these tribes great numbers of negroes, are annually brought from Soudan as slaves.

The Jews are very numerous in Morocco, particularly in the cities, and carry on all the mercantile and money transactions. Every species of oppression and contempt, however, is heaped upon them. They are not allowed to mount on horseback, nor even to sit before a Moor with crossed legs. The meanest Moors will insult or maltreat them, or even enter their synagogues for the purpose; neither may they read or write Arabic, which, as the language of the koran, is considered too holy for them. When the emperor, or men in power, happen to be in want of money, they hesitate not to relieve their difficulty by stripping the Jews of large portions of wealth, however carefully it may be concealed. Catholic convents, however, are protected, though liable to various vexations, at Morocco, Mogodor, Tangier, and Mequinez.

Morocco, the capital of the above state, called

also Marakasch by the natives, is situated on a fertile plain interspersed with groves of lofty palm-trees, and bounded on the south-east by the snowy mountains of Atlas, the nearest of which is about twelve miles distant: being the principal residence of the emperor, it is generally considered as the capital of the empire, though Fez contains a much greater population. It was founded about the middle of the eleventh century, and before the termination of the twelfth attained its highest prosperity. The space included between the walls is capable of containing a population of more than 300,000 individuals; but much of it is now covered with gardens and dilapidated building and the present number of its inhabitants is estimated at 40,000. But see the above article. The situation is in general salubrious, and the mountains defend it from the Shume, or hot winds of the desert, but the plague sometimes makes great ravages. The streets are narrow, irregular, and gloomy, and the houses without front windows. A few are built of stone, but the greater number are composed of earth and lime. The streets are subject to all the inconveniences of not being paved. Morocco, however, has many tokens of its former grandeur. Its temples and mosques are numerous, large, and splendid. The walls are thick and high, and strengthened by towers. The palace of the sultan stands beyond them, on the south, and comprises a vast group of buildings, courts, and gardens; the whole space being enclosed about three miles in circumference. Fez is the capital of the kingdom of that name, and situated about 230 miles north-east of Morocco. It stands on the slope of several hills that surround it on all sides except the north and north-east.

Morocco, or Marroquin, the skin of a goat, or some other animal resembling it, dressed in sumach or galls, and dyed of any color at pleasure; much used in bookbinding, &c. The name is derived from the kingdom of Morocco, whence the method of preparing these skins was first borrowed. Morocco skins are brought from the Levant, Barbary, Spain, Flanders, and France; red, black, yellow, blue, &c. See Leather.

MOROSE', *adj.* } Latin, *morosus*. Sour;
MOROSE'LY, *adv.* } peevish; sullen: the ad-
MOROS'ITY, *n. s.* } verb and substantive correspond.

Why then be sad,
But entertain no *morosity*, brothers, other
Than a joint burthen laid upon us.
Shakspeare.

Some *morosities*
We must expect, since jealousy belongs
To age, of scorn, and tender sense of wrongs.
Denham.

The pride of this man, and the popularity of that; the levity of one, and the *morosity* of another.
Clarendon.

And thus they took prisoner the earl of Bath in Devonshire, who neither had, or ever meant to do the king the least service; but only out of the *morosity* of his own nature, had before, in the house, expressed himself not of their minds. *Id.*

It (love) avoideth that unreasonable suspiciousness and diffidence, that timorous shyness, that crafty reservedness, that supercilious *morosity*, that fastidious sullenness, and the like untoward dispositions, which keep men in estrangement, stifling good inclinations to familiarity and friendship. *Barrow.*

Mankind may be divided into the merry and the serious, who, both of them, make a very good figure in the species, so long as they keep their respective humours from degenerating into the neighbouring extreme; there being a natural tendency in the one to a melancholy *moroseness*, and in the other to a fantastic levity. *Addison.*

Without these precautions, the man degenerates into a cynick, the woman into a coquette; the man grows sullen and *morose*, the woman impertinent.
Spectator.

Take care that no sourness and *moroseness* mingle with our serious frame of mind. *Nelson.*

Too many are as *morosely* positive in their age, as they were childishly so in their youth.
Government of the Tongue.

Learn good humour, never to oppose without just reason; abate some degree of pride and *moroseness*.
Watts.

Some have deserved censure for a *morose* and affected taciturnity, and others have made speeches, though they had nothing to say. *Id. on the Mind.*

A poet, that fails in writing, becomes often a *morose* critic. The weak and insipid white wine makes at length excellent vinegar. *Shenstone.*

MOROXYLIC Acid, in chemistry, derives its name from Gr. μορον a mulberry, and ξυλον wood, because found in the wood of that tree. In the botanic gorden of Palermo, Mr. Thompson found a curious saline substance on the trunk of a white mulberry tree. It appeared as a coating on the surface of the bark in little granulous drops of a yellowish and blackish-brown color, and had likewise penetrated its substance. Klaproth, who analysed it, found that its taste was somewhat like that of succinic acid; on burning coals, it swelled up a little, emitted a pungent vapor scarcely visible to the eye, and left a slight earthy residuum. 600 grains of the bark loaded with it were lixiviated with water, and afforded 320 grains of a light salt, resembling in color a light wood, and composed of short needles united in radii. It was not deliquescent; and, though the crystals did not form till the solution was greatly condensed by evaporation, it is not very soluble, since 1000 parts of water dissolve but 35 with heat and 15 cold.

This salt was found to be a compound of lime and a peculiar vegetable acid, with some extractive matter. To obtain the acid separate, Klaproth decomposed the calcareous salt by acetate of lead, and separated the lead by sulphuric acid. He likewise decomposed it directly by sulphuric acid. The product was still more like succinic acid in taste; was not deliquescent; easily dissolved both in water and alcohol; and did not precipitate the metallic solutions, as it did in combination with lime. Twenty grains being slightly heated, in a small glass retort, a number of drops of an acid liquor first came over; next a concrete salt arose, that adhered flat against the top and part of the neck of the retort in the form of prismatic crystals, colorless and transparent; and a coally residuum remained. The acid was then washed out, and crystallised by spontaneous evaporation.—Thus sublimation appears to be the best mode of purifying the salt, but it adhered too strongly to the lime to be separated

from it directly by heat without being decomposed. See CHEMISTRY, Index.

MORPETH, a handsome borough and market town of Northumberland, fifteen miles from Newcastle, seated on the Cammas, with a bridge over the Wansbeck. It is an ancient borough by prescription, and had once an abbey and a castle, now in ruins, situated about a quarter of a mile to the south of the town and river Wansbeck, on an eminence which overlooks them both. The market place is conveniently situated near the centre of the town; and an elegant town-house was built by the Carlisle family in 1714, in which the quarter-sessions are held for the county. It is built with hewn stone, with a piazza. The church being a quarter of a mile from the town, a tower containing a good ring of bells stands near the market place. Near the bridge is the county gaol, a modern structure. Morpeth has a free grammar school, a chapel near the river, on the site of a chantry that was granted for the support of the school, which was part of the old structure, and an hospital. In 1215 the townsmen burnt their town out of hatred to king John, that he might find no shelter in it. It has a good market on Saturday for corn, cattle, and provisions; and another on Wednesday, extremely well supplied with live cattle. It is a post town and thoroughfare, with many good inns, plenty of fish, and several mills. The earl of Carlisle's steward holds a court twice a-year, one on Monday after Michaelmas, when four persons are chosen by the free burgesses, who are about 107, and presented to the steward, who names two of them to the bailiffs, who, with seven aldermen, are its governors for the year following. It sends two members to parliament. It lies ninety-one miles south of Edinburgh, and 292 north by west of London.

MORPHEUS, in the mythology, the god of sleep, or, according to others, one of the ministers of Somnus. He caused sleepiness, and represented the forms of dreams. Ovid styles him the kindest of the deities; and he is usually described in a recumbent posture, and crowned with poppies.

MORPHIA, in chemistry, the alkaline narcotic principle of opium first obtained pure by M. Sertürner in 1817.

Two somewhat different processes for procuring it have been given by M. Robiquet and M. Choulant.

According to the former, a concentrated infusion of opium is to be boiled with a small quantity of common magnesia for a quarter of an hour. A considerable quantity of a grayish deposite falls. This is to be washed on a filter with cold water, and, when dry, acted on by weak alcohol for some time, at a temperature beneath ebullition. In this way very little morphia, but a great quantity of coloring matter, is separated. The matter is then to be drained on a filter, washed with a little cold alcohol, and afterwards boiled with a large quantity of highly rectified alcohol. This liquid being filtered while hot, on cooling it deposits the morphia in crystals, and very little colored. The solution in alcohol, and crystallisation, being repeated two or three times, colorless morphia is obtained

The theory of this process is the following:—Opium contains a meconiate of morphia. The magnesia combines with the meconic acid, and the morphia is displaced.

Choulant directs us to concentrate a dilute watery infusion of opium, and leave it at rest till it spontaneously let fall its sulphate of lime in minute crystals. Evaporate to dryness; redissolve in a little water, and throw down any remaining lime and sulphuric acid, by the cautious addition, first of oxalate of ammonia, and then of muriate of barytes. Dilute the liquid with a large body of water, and add caustic ammonia to it, as long as any precipitate falls. Dissolve this in vinegar, and throw it down again with ammonia. Digest on the precipitate about twice its weight of sulphuric ether, and throw the whole upon a filter. The dry powder is to be digested three times in caustic ammonia, and as often in cold alcohol. The remaining powder being dissolved in twelve ounces of boiling alcohol, and the filtered hot solution being set aside for eighteen hours, deposits colorless transparent crystals consisting of double pyramids. By concentrating the supernatant alcoholic solution, more crystals may be obtained.

Dr. Thompson directs us to pour caustic ammonia into a strong infusion of opium, and to separate the brownish-white precipitate by the filter; to evaporate the infusion to about one-sixth of its volume, and mix the concentrated liquid with more ammonia. A new deposite of impure morphia is obtained. Let the whole of the deposites be collected on the filter, and washed with cold water. When well drained, pour a little alcohol on it, and let the alcoholic liquid pass through the filter. It will carry off a good deal of the coloring matter, and very little of the morphia. 'Dissolve the impure morphia, thus obtained, in acetic acid; and mix the solution, which has a very deep brown color, with a sufficient quantity of ivory black. This mixture is to be frequently agitated for twenty-four hours, and then thrown on the filter. The liquid passes through quite colorless. If ammonia be now dropped into it, pure morphia falls in the state of a white powder. If we dissolve this precipitate in alcohol, and evaporate that liquid slowly, we obtain the morphia in pretty regular crystals. It is perfectly white, has a pearly lustre, is destitute of smell, but has an intensely bitter taste. Dr. Thompson states the constituents of morphia as follows:—

		Or nearly in volumes.
Hydrogen .	. 0·0555	18
Carbon .	. 0·4528	24
Oxygen .	. 0·4917	10
	1·0000	

Hence the weight of an integrant particle of morphia is 40·25.

M. Choulant says, it crystallises in double four-sided pyramids, whose bases are squares or rectangles. Sometimes in prisms with trapezoidal bases.

It dissolves in eighty-two times its weight of boiling water, and the solution on cooling deposits regular, colorless, transparent crystals. It is

soluble in thirty-six times its weight of boiling alcohol, and in forty-two times its weight of cold alcohol, of 0·92. It dissolves in eight times its weight of sulphuric ether. All these solutions change the infusion of Brasil-wood to violet, and the tincture of rhubarb to brown. The saturated alcoholic and etherous solutions, when rubbed on the skin, leave a red mark.

Sulphate of morphia crystallises in prisms which dissolve in twice their weight of distilled water. They are composed of,

Acid .	. 22	5·00
Morphia	. 40	9·09
Water .	. 38	
	100	

Nitrate of morphia yields needle-form crystals, in stars, which are soluble in one and half time their weight of distilled water. Its constituents are,

Acid .	. 20	6·75
Morphia	. 36	12·15
Water .	. 44	
	100	

Muriate of morphia is in feather-shaped crystals, and needles. It is soluble in ten and a half times its weight of distilled water. Its constituents are,

Acid .	. 35	4·625
Morphia	. 41	5·132
Water .	. 24	
	100	

The acetate crystallises in needles; the tartrate in prisms; and the carbonate in short prisms. Dr. Thompson states the ultimate constituents of morphia to be,

Hydrogen .	. 0·0555
Carbon . .	. 0·4528
Oxygen . .	. 0·4917
	1·0000

from the analysis of one grain, by ignited peroxide of copper. He imagines the atom to be either 40·25, or 20·125. The former number approaches to that of Pelletier and Caventou; the latter is much greater than any of Choulant's deduced from the above saline combinations, the mean of which gives about 8·25.

Morphia acts with great energy on the animal economy. A grain and a half, taken at three different times, produced such violent symptoms upon three young men of seventeen years of age that Sertürner was alarmed lest the consequences should have proved fatal.

Morphia, according to its discoverer, melts in a gentle heat; and in that state has very much the appearance of melted sulphur. On cooling, it again crystallises. It burns easily; and, when heated in close vessels, leaves a solid resinous black matter, having a peculiar smell. See CHEMISTRY, Index.

MOR'RIS, *n. s.* } Span. *moresco* (*dancaol mo-*
MORRIS' DANCE. } *resco*); Port. and Ital. *moresca*; Belg. *moorisk*; Fr. *moresque*. A dance in which bells are gingled, or staves or swords clashed, which was practised by the Moors, and probably a kind of Pyrrhick or military dance.

One in his catalogue of a feigned library, sets down this title of a book, the *morris-dance* of heretics. *Bacon.*

The queen stood in some doubt of a Spanish invasion, though it proved but a *morris-dance* upon our waves. *Wotton.*

I took delight in pieces that shewed a country village, *morrice-dancing*, and peasants together by the ears. *Peacham.*

The sounds and seas, with all their finny drove,
Now to the moon in wavering *morrice* move.
Milton.

There went about the country a set of *morrice-dancers*, composed of ten men, who danced a maid marian and a tabor and pipe. *Temple.*

Four reapers danced a *morris* to oaten pipes.
Spectator.

MORRIS DANCE. See MORESQUE DANCES.

MORRIS, a county of New Jersey, bounded north by Bergen county, east by Essex county, south by Somerset and Hunterdon counties, and north-west by Sussex county. Chief town, Morristown.

MOR'PHEW, *n. s.* Fr. *morphée*; Ital. *morfea*; low Lat. *morphæa*. A scurf on the face.

The shape is changed with disease or casualty of age; while the man is the same; the face that was fair is now distorted and *morphewed*; the hair that was yellow or black, turned white or vanished.
Bp. Hall.

MORRISTOWN, a post town, the capital of Morris county New Jersey; eighteen miles W.N.W. of Newark, and twenty-eight W.N.W. of New York. It is a pleasant and flourishing place, containing a court-house, a jail, a bank, an academy, and two houses of public worship, one for Presbyterians, and one for Baptists. A newspaper is published here.

MOR'ROW, *n. s.* Saxon monzen; Belgic *morghen*; Teut. *morghen*. The original meaning seems to have been morning. To-morrow as the Fr. *demain*, is of similar origin and signification; the day next after the present.

So I caste out fendis and I make perfightly heel this, to day and *to-morrowe*; and the thirdde day I am endid. *Wiclif. Luk* 13.

The Lord did that thing on the *morrow*.
Exod. ix. 6.

I would not buy
Their mercy at the price of one fair word;
To have it with saying, good *morrow*.
Shakspeare.

Thou
Canst pluck night from me, but not lend a *morrow*.
Id.

Peace, good reader, do not weep,
Peace, the lovers are asleep;
Let them sleep, let them sleep on,
Till this stormy night be gone,
And the eternal *morrow* dawn,
Then the curtains will be drawn. *Crasnaw.*

To-morrow you will live, you always cry,
In what far country does this *morrow* lie?
That 'tis so mighty long ere it arrive:
Beyond the Indies does this *morrow* live?
'Tis so far-fetched this *morrow*, that I fear
'Twill be both very old, and very dear:
To-morrow will I live, the fool does say,
To day itself's too late, the wise lived yesterday.
Cowley

Our yesterday's to *morrow* now is gone,
And still a new *to-morrow* does come on.
We by *to-morrows* draw out all our store,
Till the exhausted well can yield no more. *Id.*

To-morrow, didst thou say?
Me thought I heard Horatio say *to-morrow*.
Go to—I will not hear of it—*to-morrow!*
'Tis a sharper, who stakes his penury
Against thy plenty—who takes thy ready cash,
And pays thee nought but wishes, hopes, and promises,
The currency of idiots. *Cotton.*

To-morrow is the time when all is to be rectified. *Spectator.*

To-morrow comes; 'tis noon; 'tis night:
This day like all the former flies;
Yet on he runs to seek delight
To-morrow, till to night he dies. *Prior.*

Sweet fa's the eve on Craigie-burn,
And blithe awakes the *morrow*,
But a' the pride o' spring's return
Can yield me nocht but sorrow. *Burns.*

Beware of desperate steps. The darkest day,
Live till *to-morrow*, will have passed away. *Cowper.*

MORS, or MORSOE, the largest island of the gulf of Lymfiord, in the north of Jutland, lies in lat. 56° 41′ N. It contains 136 square miles, and a population of about 7800. The surface is in general level, except on the south side; and in several places the sea has formed subterraneous excavations, over which the ground has given way. The climate is variable; but the soil is very fertile, and two-thirds of the whole island is under cultivation. The rest is moor; but will eventually, it is thought, be converted into meadow or arable land. The inhabitants speak a dialect of their own; and they are a simple contented race. From Nykiobing, the only town, there is a large export of corn.

MORS, Death, one of the infernal deities, born of Night without a father. She was worshipped by the ancients with great solemnity. She was not represented as an actually existing power, but as an imaginary being. Euripides introduces her in one of his tragedies on the stage. The moderns represent her as a skeleton armed with a scythe and a scymitar.

MORSCHANSE, a town of European Russia, in the province of Tambov, on the river Zna. It has manufactures of paper, linen, and canvas; and some fulling and saw mills. The Zna communicating with the Wolga, the town has the command of a very extensive water carriage, and a brisk traffic in corn. Population 4200. Seventy-eight miles north of Tambov.

MORSE, *n. s.* Goth. *mar*, the sea, and *ors*, a horse (Thomson). The phoca or sea-horse.

That which is commonly called a sea-horse is properly called a *morse*, and makes not out that shape. *Browne.*

It seems to have been a tusk of the *morse* or waltron, called by some the sea-horse. *Woodward.*

MOR'SEL, *n. s.* Fr. *morceau, morcella;* Latin *morsus*, a bite. A mouthful; small piece or quantity; a meal.

And aftir the *mossel*, thanne Satanas entride into him, and Jesus seith to him, that thing that thou doist, do thou swithe. *Wiclif. Jon.* 13.

I dwell with hem that proude y be,
And ful of wiles and subtilte,
And faine him pore, and him self fiden
With gode *morcils* delicious,
And drinkin gode wine precious. *Chaucer. Cant. Tales.*

Yet camest thou to a *morsel* of this feas
Having fully dined before. *Shakspeare. Coriolanus.*

And me his parent would full soon devour
For want of other prey, but knows that I
Should prove a bitter *morsel*, and his bane. *Milton.*

On these herbs, and fruits, and flowers,
Feed first; on each beast next, and fish and fowl.—
No homely *morsels!* *Id. Paradise Lost.*

Of the *morsels* of native and pure gold, he had seen some weighed many pounds. *Boyle.*

He boils the flesh,
And lays the mangled *morsels* in a dish. *Dryden.*

A dog crossing a river with a *morsel* of flesh in his mouth, saw, as he thought, another dog under the water, upon the very same adventure. *L'Estrange.*

A wretch is prisoner made,
Whose flesh, torn off by lumps, the ravenous foe
In *morsels* cut to make it farther go. *Tate's Juvenal.*

Every *morsel*, to a satisfied hunger, is only a new labour to a tired digestion. *South's Sermons.*

A letter to the keeper of the lion requested that it may be the first *morsel* put into his mouth. *Addison.*

Hard is the fate of the infirm and poor!
Here, as I craved a *morsel* of their bread,
A pampered menial drove me from the door,
To seek a shelter in an humbler shed. *Mess.*

MORT, *n. s.* Fr. *mort.* A tune in hunting sounded at the death of the game.

To be making practised smiles,
As in a looking-glass, and to sigh as 'twere
The *mort* o' th' deer; oh that is entertainment
My bosom likes not. *Shakspeare. Winter's Tale.*

MORTAGNE, a town of Normandy, France, in the department of the Orne. It is situated on a hill near the river Chyppe; and contains 5800 inhabitants, who manufacture linen, thread, and leather. A great deal of cyder is made here. The great disadvantage of the place is the want of good water. Fifteen miles E. S. E. of Sees and eighteen E. N. E. of Alençon.

MOR'TAL, *adj.* & *n. s.* } Fr. *mortel;* Lat.
MORTAL'ITY, } *mortalis.* Liable or
MOR'TALLY, *adv.* } subject to death; bringing, or producing death; deadly; and, by a usage that should teach a good lesson, human; pertaining to man; man: mortality is subjection or liability to death; power or frequency of death; death; humanity, or human nature: mortally means fatally; irrecoverably; to death.

This corruptible must put on incorruption, and this *mortal* must put on immortality. 1 *Cor.* xv. 53.

Who for each fickle fear from virtue shrinks,
Shall in this world enjoy no earthly thing,
No *mortal* man the cup of surety drinks;
But let us pick our good from out much bad,
That so our little world may know its king. *Sir P. Sidney.*

So from immortal race he does proceed,
That *mortal* hands may not withstand his might;
Doe for his derring foe, and bloody deed;
For all in blood and spoil is his delight.
Faerie Queene.

Though every sin of itself be *mortal*, yet all are not equally *mortal*; but some more, some less.
Perkins.

I beg *mortality*,
Rather than life preserved with infamy.
Shakspeare.

Mortality and mercy in Vienna
Live in thy tongue and heart. *Id.*

Nature does require
Her times of preservation, which, perforce,
I her frail son amongst my brethren *mortal*
Must give my attendance to. *Id. Henry VIII.*

Come, all you spirits
That tend on *mortal* thoughts, unsex me here,
And fill me from the crown to th' toe, top full
Of cruelty. *Id. Macbeth.*

They met me in the day of success; and I have learned by the perfectest report, they have more in them than *mortal* knowledge. *Id.*

Macbeth
Shall live the lease of nature, pay his breath
To time and *mortal* custom. *Id.*

The *mortalest* poisons practised by the West Indians, have some mixture of the blood, fat, or flesh of man. *Bacon.*

When I saw her die,
I then did think on your *mortality*. *Carew.*

Heavenly powers, where shall we find such love?
Which of ye will be *mortal* to redeem
Man's *mortal* crime; and just, the unjust to save?
Milton.

The fruit
Of that forbidden tree, whose *mortal* taste
Brought death into the world, and all our woe.
Id.

The day thou eatest thereof, my sole command
Transgrest, inevitably thou shalt die;
From that day *mortal*: and this happy state
Shalt lose. *Id. Paradise Lost.*

The voice of God
To *mortal* ear is dreadful; they beseech
That Moses might report to them his will,
And terror cease. *Id.*

Gladly would I meet
Mortality my sentence. *Id.*

The rise of keeping those accounts first began in the year 1592, being a time of great *mortality*.
Graunt.

Success, the mark no *mortal* wit,
Or surest hand can always hit. *Butler.*

Some circumstances have been great discouragers of trade, and others are absolutely *mortal* to it.
Temple.

Hope not, base man! unquestioned hence to go,
For I am Palamon, thy *mortal* foe. *Dryden.*

A single vision so transports them, that it makes up the happiness of their lives; *mortality* cannot bear it often. *Id.*

In the battle of Landen you were not only dangerously, bu , in all appearance, *mortally* wounded.
Id.

No one enjoyment but is liable to be lost by ten thousand accidents, out of all *mortal* power to prevent. *South's Sermons.*

I can behold no *mortal* now;
For what's an eye without a brow. *Prior.*

Warn poor *mortals* left behind. *Tickel.*

Safe in the hand of one disposing power,
Or in the natal, or the *mortal* hour. *Pope.*

Take these tears, *mortality's* relief,
And, till we share your joys, forgive our grief.
Id.

I point out mistakes in life and religion, that we might guard against the springs of error, guilt, and sorrow, which surround us in every state of *mortality*.
Watts's Logick.

All men think all men *mortal* but themselves.
Young.

Preposterous madmen, void of fear or shame,
Lay their crimes bare to these chaste eyes of Heaven,
Yet shrink and shudder at a *mortal's* sight. *Id.*

And for this—
A being of the race thou dost despise,
The order which thine own would rise above,
Mingling with us and ours, thou dost forego
The gifts of our great knowledge, and shrink'st back
To recreant *mortality*. *Byron.*

MOR'TAL, *adj.* } Sax. mæpt; Isl. *morgt*;
MOR'TALLY, *adv.* } Goth. *margt*, *murth*, a heap.

Great; extreme; extremely. Obsolete in good writing, but retained in the vulgar phrase, 'a mortal deal.'

The birds were in a *mortal* apprehension of the beetles, till the sparrow reasoned them into understanding. *L'Estrange.*

Adrian *mortally* envied poets, painters, and artificers, in works wherein he had a vein to excel.
Bacon's Essays.

Know all, who would pretend to my good grace,
I *mortally* dislike a damning face. *Granville.*

MORTALITY, BILLS OF, are accounts or registers specifying the numbers born, married, and buried, in any parish, town, or district. In general they contain only these numbers; and, even when thus limited, are of great use, by showing the degrees of healthiness and prolificness, and the progress of population, in the places where they are kept. It is therefore much to be wished that such accounts had been always correctly kept in every kingdom, and regularly published at the end of every year. We should then have had under our inspection the comparative strength of every kingdom, as far as it depends on the number of inhabitants, and its increase or decrease at different periods. But such accounts are rendered more useful, when they include the ages of the dead, and the distempers of which they have died. In this case they convey some of the most important instructions, by furnishing us with the means of ascertaining the law which governs the waste of human life, the values of annuities dependent on the continuance of any lives, or any survivorships between them, and the favorableness or unfavorableness of different situations to the duration of human life. There are but few registers of this kind; nor has this subject, though so interesting to mankind, ever engaged much attention till lately. The first bills containing the ages of the dead were those for the town of Breslaw in Silesia. It is well known what use has been made of these by Dr. Halley, and after him by De Moivre. A table of the probabilities of the duration of human life at every age, deduced from them by Dr. Halley, was published in the Philosophical Transactions (see the Abridgment, vol. iii. p. 669), and is the first table of this sort that was published. Since the publication of this table, similar bills have been established in a

few towns of this kingdom; and particularly in London, in 1728, and at Northampton, in 1735.

At Northampton, though more males are born than females, and nearly the same number die, yet the number of living females appeared, by an account taken in 1746, to be greater than the number of males, in the proportion of 2301 to 1770, or thirty-nine to thirty. At Berlin it appeared, from an accurate account which was taken of the inhabitants in 1747, that the number of female citizens exceeded the number of male citizens in the proportion of 459 to 391. And yet, out of this smaller number of males, more had died for twenty years preceding 1751, in the proportion of nineteen to seventeen. At Edinburgh, in 1793, the number of females was to the number of males as forty-four to thirty-seven. But the females that died annually were to the males in no higher proportion than three and one-sixth to three. Whoever will take the trouble to examine the accounts in Phil. Trans. Abr., vol. vii., part iv., p. 46, &c., will find, that though in the towns there enumerated, the proportion of males and females born is no higher than nineteen to eighteen, yet the proportion of boys and girls that die is eight to seven; and that, in particular, the still-born and chrysom males are to the still-born and chrysom females as three to two. In thirty-nine parishes of the district of Vaud and Switzerland, the number of males that died during ten years before 1766 was 8170; of females 8167; of whom the numbers that died under one year of age were 1817 males and 1305 females; and, under ten years of age, 3099 males and 2598 females. In the beginning of life, therefore, and before any emigrations can take place, the rate of mortality among males appears to be greater than among females. And this is rendered yet more certain by the following accounts. At Vevey, in the district of Vaud, there died in twenty years, ended at 1764, in the first month after birth, of males 135 to eighty-nine females; and in the first year 225 to 162. It appears from a table given by Susmilch, in his Gottliche Ordnung, vol. ii. p. 317, that in Berlin 203 males die in the first month, and but 168 females; and in the first year 489 to 395; and also, from a table of Struycks, that in Holland 396 males die in the first year to 306 females. The authorities for these facts, and much more on this subject, may be found in the fourth essay in Dr. Price's Treatise on Reversionary Payments, and in the supplement. We shall here only add the following table, taken from a memoir of Mr. Wargentin's, published in the collection of the Memoirs of the Royal Academy of Sciences at Stockholm, printed at Paris in 1772. In all Sweden for nine years, ended in 1763, the proportion of females to males that died out of a given number living, was,

Under the age of one year		1000 to 1099
From 1 to 3 years of age	.	1000 to 1022
3 5	. . . .	—— 1042
5 10	. . . .	—— 1074
10 15	. . . .	—— 1080
15 20	. . . .	—— 1097
20 25	. . . .	—— 1283
25 30	. . . .	—— 1161
30 35	. . . .	1000 to 993
35 40	. . . .	—— 1159
40 45	. . . .	—— 1115
45 50	. . . .	—— 1340
50 55	. . . .	—— 1339
55 60	. . . .	—— 1292
60 65	. . . .	—— 1115
65 70	. . . .	—— 1080
70 80	. . . .	—— 1022
80 90	. . . .	—— 1046
Above 90	. . . .	—— 1044

Registers of mortality, on an improved plan, were established in 1772 at Chester, and also, in 1773, at Warrington in Lancashire; and they are so comprehensive and correct, that there is reason to expect they will afford much instruction on the subject of human mortality, and the value of lives. But the country hitherto most distinguished in this respect is Sweden; for in that kingdom exact accounts are taken of the births, marriages, and burials, and of the numbers of both sexes that die at all ages in every town and district, and also, at the end of every period of five years, of the numbers living at every age: and at Stockholm a society is established, whose business it is to superintend and regulate the enumerations, and to collect from the different parts of the kingdom the registers, in order to digest them into tables of observation. These regulations were begun in 1755; and tables, containing the result of them from 1755 to 1763, have been published in Mr. Wargentin's memoir just referred to; and the most material parts of them may be found in an essay by Dr. Price on the Difference between the Duration of Human Life in Towns and in Country Parishes, printed in the 65th vol. of the Phil. Trans., part ii.

In the fourth essay in Dr. Price's Treatise on Reversionary Payments and Life Annuities the following account is given of his principles of observation on the registers of mortality; and of the proper method of forming tables so as to render them just representations of the number of inhabitants, and the probabilities of the duration of human life in a town or country. In every place which just supports itself in the number of its inhabitants, without any recruits from other places, or where, for a course of years, there has been no increase or decrease, the number of persons dying every year at any particular age, and above it, must be equal to the number of the living at that age. The number, for example, dying every year at all ages, from the beginning to the utmost extremity of life, must, in such a situation, be just equal to the whole number born every year. And, for the same reason, the number dying every year at one year of age and upwards, at two years of age and upwards, and so on, must be equal to the numbers that attain to those ages every year; or to the numbers of the living at those ages. It is obvious, that, unless this happens, the number of inhabitants cannot remain the same. If the former number is greater than the latter, the inhabitants must decrease; if less, they must increase. From this observation it follows, that in town or country, where there is no increase or decrease, bills of mortality which give the ages at which

all die, will show the exact number of inhabitants, and also the exact law according to which human life wastes in that town or country. To find the number of inhabitants, the mean numbers dying annually at every particular age and upwards must be taken as given by the bills, and placed under one another in the order of the second column of the following tables. These numbers will, it has appeared, be the numbers of the living at one, two, three, &c., years of age; and consequently the sum diminished by half the number born annually will be the whole number of inhabitants. This subtraction is necessary for the following reason: In a table formed in the manner here directed it is supposed that the numbers in the second column are all living together at the beginning of every year. Thus the number in the second column opposite to 0 in the first column, the table supposes to be all just born together on the first day of the year. The number, likewise, opposite to 1, it supposes to attain to one year of age just at the same time that the former number is born. And the like is true of every number in the second column. During the course of the year, as many will die at all ages as were born at the beginning of the year; and consequently there will be an excess of the number alive at the beginning of the year above the number alive at the end of the year, equal to the whole number of the annual births; and the true number constantly alive together is the arithmetical mean between these two numbers; or, agreeably to the rule here given, the sum of the numbers in the second column of the table lessened by half the number of annual births. In such a series of numbers, the excess of each number above that which immediately follows it will be the number dying every year out of the particular number alive at the beginning of the year; and these excesses set down regularly, as in the third column of the table to which we have referred, will show the different rates at which human life wastes through all its different periods, and the different probabilities of life at all particular ages. What has been now said goes on the supposition that the place whose bills of mortality are given supports itself, by procreation only, in the number of its inhabitants. In towns this very seldom happens, on account of the luxury and debauchery which generally prevail in them. They are, therefore, commonly kept up by a constant accession of strangers, who remove to them from country parishes and villages. In these circumstances, in order to find the true number of inhabitants, and probabilities of life, from bills of mortality containing an account of the ages at which all die, it is necessary that the proportion of the annual births to the annual settlers should be known, and also the period of life at which the latter remove. Both these particulars may be discovered by the following method:—If, for a course of years, there has been no sensible increase or decrease in a place, the number of annual settlers will be equal to the excess of the annual burials above the annual births. If there is an increase, it will be greater than this excess. If there is a decrease, it will be less. The period of life at which these settlers remove will appear in the bills by an increase in the number of deaths a that period and beyond it. Thus in the London bills the number of deaths between twenty and thirty is generally above double, and between thirty and forty nearly triple, the number of deaths between ten and twenty; and the true account of this is, that, from the age of eighteen or twenty to thirty-five or fifty, there is an afflux of people every year to London from the country, which occasions a great increase in the number of inhabitants at these ages; and consequently raises the deaths for all ages above twenty considerably above their due proportion, when compared with the number of deaths before twenty. This is observable in all the bills of mortality for towns with which we are acquainted, not excepting even the Breslaw bills.

Dr. Halley takes notice that these bills gave the number of deaths between ten and twenty too small. This he considered as an irregularity in them owing to chance; and therefore, in forming his table of observations, he took the liberty so far to correct it as to render the proportion of those who die, to the living in this division of life, nearly the same with the proportion which, he says, he had been informed die annually of the young lads in Christ Church Hospital. But the truth is, that this irregularity in the bills was derived from the cause we have just assigned. During the five years for which the Breslaw bills are given by Dr. Halley, the births did indeed a little exceed the burials; but it appears that this was the effect of some peculiar causes that happened to operate just at that time: for during a complete century, from 1633 to 1734, the annual medium of births was 1089, and of burials 1256. This town, therefore, must have been all along kept up by a number of yearly recruits from other places, equal to about a seventh part of the yearly births. It appears from the account in the Phil. Trans. Abr., vol. vii. No. 380, p. 46, &c., that from 1717 to 1725 the annual medium of births at Breslaw was 1252, of burials 1507; and that the greatest part of the births died under ten years of age. From a table in Susmilch's works, vol. i. p. 38, it appears that in reality the greater part of all that die in this town are children under five years of age. What has been now observed, concerning the period of life at which people remove from the country to settle in towns, would appear sufficiently probable were there no such evidence for it as has been mentioned; for it might be well reckoned that these people in general must be single persons in the beginning of mature life, who, not having yet obtained settlements in the places where they were born, migrate to towns in quest of employments. It is proper next to endeavour to explain distinctly the effect which these accessions to towns must have on tables of observation formed from their bills of mortality. This is a subject proper to be insisted on, because mistakes have been committed about it; and because also the discussion of it is necessary, to show how near to truth the values of lives come as deduced from such tables. The following general rule may be given on this subject. If a place has for a course of years been maintained in a state nearly stationary, as to number of inha-

bitants, by recruits coming in every year, to prevent the decrease that would arise from the excess of burials above the births, a table formed on the principle, 'that the number dying annually, after every particular age, is equal to the number living at that age,' will give the number of inhabitants, and the probabilities of life, too great, for all ages preceding that at which the recruits cease; and after this it will give them right. If the accessions are so great as to cause an increase in the place, such a table will give the number of inhabitants and the probabilities of life too little after the age at which the accessions cease: and too great if there is a decrease. Before that age it will in both cases give them too great; but most considerably so in the former case, or when there is an increase. Agreeably to these observations, if a place increases, not in consequence of accessions from other places, but of a constant excess of the births above the deaths, a table constructed on the principle that has been mentioned will give the probabilities of life too low through the whole extent of life; because, in such circumstances, the number of deaths in the first stages of life must be too great, in comparison of the number of deaths in the later stages; and more or less so as the increase is more or less rapid. The contrary in all respects takes place where there is a decrease arising from the excess of the deaths above the births. For example, let us suppose that 244 of those born in a town attain annually to twenty years of age, and that 250 more, all likewise twenty years of age, come into it annually from other places, in consequence of which it has for a course of years been just maintained in the number of its inhabitants, without any sensible increase or decrease; in these circumstances, the number of the living in the town of the age of twenty will be always 244 natives and 250 settlers, or 494 in all; and since these are supposed all to die in the town, and no more recruits are supposed to come in, 494 will be likewise the number dying annually at twenty and upwards. In the same manner it will appear, on these suppositions, that the number of the living, at every age subsequent to twenty, will be equal to the number dying annually at that age and above it; and consequently that the number of inhabitants and the decrements of life, for every such age, will be given exactly by the table. But, for all ages before twenty, they will be given much too great. For let 280 of all born in the town reach ten; in this case 280 will be the true number of the living in the town at the age of ten; and, the recruits not coming in till twenty, the number given by the bills as dying between ten and twenty will be the true number dying annually of the living in this division of life. Let the number be thirty-six; and it will follow that the table ought to make the numbers of the living at the ages between ten and twenty, a series of decreasing means between 280 and (280 diminished by thirty-six, or) 244. But, in forming the table on the principle just mentioned, 250 (the number above twenty dying annually in the town who were not born in it) will be added to each number in this series; and therefore the table will give the numbers of the living, and the probabilities of life in this division of life, almost twice as great as they really are. This observation, it is manifest, may be applied to all the ages under twenty. Such a table will give the number of inhabitants and the probabilities of life equally wrong before twenty, whether the recruits all come in at twenty, agreeably to the supposition just made, or only begin then to come in. In this last case the table will give the number of inhabitants and probabilities of life too great throughout the whole extent of life, if the recruits come in at all ages above twenty. But, if they cease at any particular age, it will give them right only from that age; and before, it will err all along on the side of excess; but less considerably between twenty and that age than before twenty. For example: if, of the 250 supposed to come in at twenty, only 150 then come in, and the rest at thirty; the number of the living will be given 100 too high at every age between twenty and thirty; but, as just shown, they will be given 250 too high at every age before twenty. In general, therefore, the number of the living at any particular age must be given by the supposed table as many too great as there are annual settlers after that age; and if these settlers come in at all ages indiscriminately, during any certain interval of life, the number of inhabitants and the probabilities of life will be continually growing less and less wrong the nearer any age is to the end of that interval. These observations prove, that tables of observation formed in the common way, from bills of mortality for places where there is an excess of the burials above the births, must be erroneous for a great part of the duration of life, in proportion to the degree of that excess. They show likewise at what parts of life the errors in such tables are most considerable, and how they may be in a great measure corrected. All this shall be exemplified in the particular case of London. The number of deaths between the ages of ten and twenty is always so small in the London bills, that it seems certain few recruits come to London under twenty, or at least not so many as before this age are sent out for education to schools and universities. After twenty, great numbers come in till thirty, and some perhaps till forty or fifty; but, at every age after fifty, it is probable that more retire from London than come to it. The London tables of observation, therefore, being formed on the principle already mentioned, cannot give the probabilities of life right till forty. Between thirty and forty they must be a little too high; but more so between twenty and thirty, and most of all so before twenty. It follows also that these tables must give the number of inhabitants in London much too great. The first of the following tables is formed in the manner here explained, from the London bills for ten years, from 1759 to 1768, and adapted to 1000 born as a radix. The sum of the numbers in the second column, diminished by half the number born, is 25,757. According to this table, then, for every 1000 deaths in London there are 25¾ as many inhabitants; or, in other words, the expectation of a child just born is 25¾; and the inhabitants are to the annual burials as 25¾ to one. But it has appeared, that the numbers in the second column,

being given on the supposition that all those who die in London were born there, must be too great; and we have hence a demonstration, that the probabilities of life are given in the common tables of London observations too high for at least the first thirty years of life; and also, that the number of inhabitants in London must be less than 25¾ multiplied by the annual burials. The common tables, therefore, of London observations undoubtedly need correction, as Mr. Simpson suggested, and in some measure performed, though too imperfectly, and without going upon any fixed principles, or showing particularly how tables of observation ought to be formed, and how far in different circumstances, and at different ages, they are to be depended on. The way of doing this, and in general the right method of forming genuine tables of observation for towns, may be learned from the following rule:—From the sum of all that die annually, after any given age, subtract the number of annual settlers after that age; and the remainder will be the number of the living at the given time. If, therefore, the number of annual settlers in a town at every age could be ascertained, a perfect table of observations might be formed for that town from bills of mortality, containing an account of the ages at which all die in it. But no more can be learned in this instance, from any bills, than the whole number of annual settlers, and the general division of life in which they enter. This, however, may be sufficient to enable us to form tables that shall be tolerably exact. For instance, suppose the annual deaths in a town, which has not increased or decreased, to have been for many years in the proportion of four to three to the annual births; it will hence follow, that ¼ of the persons who die in such a town are settlers, or emigrants from other places, and not natives; and the sudden increase in the deaths after twenty will also show, agreeably to what was before observed, that they enter after this age. In forming, therefore, a table for such a town, a quarter of all that die at all ages throughout the whole extent of life must be deducted from the sum of all that die after every given age before twenty; and the remainder will be the true number living at that given age. And if at twenty, and every age above it, this deduction is omitted, or the number of the living at every such age is taken the same with the sum of all that die after it, the result will be (supposing most of the settlers to come in before thirty, and all before 40) a table exact till twenty; too high between twenty and thirty; but nearly right for some years before forty; and after forty exact again. Such a table, it is evident, will be the same with the table last described at all ages above twenty, and different from it only under twenty. It is evident also, that, on account of its giving the probabilities of life too great for some years after twenty, the number of inhabitants deduced from it may be depended on as somewhat greater than the truth; and more or less so as the annual recruits enter in general later or sooner after twenty. Let us now consider what the result of these remarks will be, when applied particularly to the London bills. It must be here first observed that at least one quarter of all that die in London are supplies or settlers from the country, and not natives. The medium of annual burials for ten years, from 1759 to 1768, was 22,956; of births 15,710. The excess is 7246, or near a third of the burials. The same excess during ten years before 1750 was 10,500 or near half the burials. London was then decreasing. For the last twelve or fifteen years it has been increasing. This excess, therefore, agreeably to the foregoing observations, was then greater than the number of annual settlers, and it is now less. It is, however, here supposed, that the number of annual settlers is now no more than a quarter of the annual burials, in order to allow for more omissions in the births than the burials; and also in order to be more sure of obtaining results that shall not exceed the truth. Of every 1000, then, who die in London, only 750 are natives, and 250 are recruits, who come to it after eighteen or twenty years of age; and, consequently, to obtain from the bills a more correct table than the first of the following tables, 250 must be subtracted from every one of the numbers in the second column till twenty; and the numbers in the third column must be kept the same, the bills always giving these right. After twenty the table is to be continued unaltered; and the result will be, a table which will give the numbers of the living at all ages in London much nearer the truth, but still somewhat too high. Such is the third of the following tables. The sum of all the numbers in the second column of this table, diminished by 500, is 20,750. For every 1000 deaths, therefore, in London, there are, according to this table, 20,750 living persons in it; or, for every single death, 20¾ inhabitants. It was before shown that the number of inhabitants in London could not be so great as 25 times ¾ the deaths. It now appears (since the numbers in the second column of this table are too high), that the number of inhabitants in London cannot be so great as even twenty times ¾ the deaths. And this is a conclusion which every one who will bestow due attention on what has been said, will find himself forced to receive. It will not be amiss, however, to confirm it by the following fact, the knowledge of which is derived from the particular enquiry and information of Mr. Harris, the late ingenious master of the royal mathematical school in Christ Church Hospital. The average of lads in this school has, for thirty years past, been 831. They are admitted at all ages between seven and eleven; and few stay beyond sixteen: they are, therefore, in general lads between the ages of eight and sixteen. They have better accommodations than children commonly have; and about 300 of them have the advantage of being educated in the country. In such circumstances, it may be well reckoned, that the proportion of children dying annually must be less than the general proportion of children dying annually at the same ages in London. The fact is, that for the last thirty years 12⅓ have died annually, or one in 70⅔. According to table III. one in seventy-three dies between ten and twenty, and one in seventy between eight and sixteen. That table, therefore, probably gives the decrements of life in London at these ages too little, and the numbers of the living too great: and if

this is true of these ages, it must be true of all other ages under twenty; and it follows demonstrably, in conformity to what was before shown, that more people settle in London after twenty than the fourth above supposed; and that from twenty, to at least thirty or thirty-five, the numbers of the living are given too great, in proportion to the decrements of life. In this table, the numbers in the second column are doubled at twenty, agreeably to what really happens in London; and the sum of the numbers in this column, diminished by half the whole number of deaths, gives the expectation of life, not of a child just born, as in other tables, but of all the inhabitants of London at the time they enter it, whether that be at birth or at twenty years of age. The expectations, therefore, and the values of London lives under twenty, cannot be calculated from this table. But it may be very easily fitted for this purpose, by finding the number of births which, according to the given decrements of life, will leave 494 alive at twenty; and then adapting the intermediate numbers in such a manner to this radix, as to preserve all along the number of the living in the same proportion to the numbers of the dead. This is done in the second of the following tables, and this table may be recommended as better adapted to the present state of London than any other table. The values of lives, however, deduced from it, are in general nearly the same with those deduced by Mr. Simpson from the London bills as they stood seventy years ago. The main difference is, that after fifty-two, and in old age, this table gives them somewhat lower than Mr. Simpson's table. The difference between the rate of human mortality in great towns and in country parishes and villages, may be found from various tables in Sir J. Sinclair's Statistical Account of Scotland; as well as from the Rev. Dr. Wilkie's table and calculations for the county of Fife.

Table I.—Mortality.

Showing the probabilities of life in London, on the supposition that all who die in London were born there. Formed from the bills for ten years, from 1759 to 1768:—

Ages.	Persons living.	Decr. of Life.	Ages.	Persons living.	Decr. of Life.	Ages.	Persons living.	Decr. of Life.
0	1000	240	31	404	9	62	132	7
1	760	99	32	395	9	63	125	7
2	661	42	33	386	9	64	118	7
3	619	29	34	377	9	65	111	7
4	590	21	35	368	9	66	104	7
5	569	11	36	359	9	67	97	7
6	558	10	37	350	9	68	90	7
7	548	7	38	341	9	69	83	7
8	541	6	39	332	10	70	76	6
9	535	5	40	322	10	71	70	6
10	530	4	41	312	10	72	64	6
11	526	4	42	302	10	73	58	5
12	522	4	43	292	10	74	53	5
13	518	3	44	282	10	75	48	5
14	515	3	45	272	10	76	43	5
15	512	3	46	262	10	77	38	5
16	509	3	47	252	10	78	33	4
17	506	3	48	242	9	79	29	4
18	503	4	49	233	9	80	25	3
19	499	5	50	224	9	81	22	3
20	494	7	51	215	9	82	19	3
21	487	8	52	206	8	83	16	3
22	479	8	53	198	8	84	13	2
23	475	8	54	190	7	85	11	2
24	463	8	55	183	7	86	9	2
25	455	8	56	176	7	87	7	2
26	447	8	57	169	7	88	5	1
27	439	8	58	162	7	89	4	1
28	431	9	59	155	8	90	3	1
29	422	9	60	147	8			
30	413	9	61	139	7			

Table II.—Mortality.

Showing the true probabilities of life in London for all ages. Formed from the bills for ten years, from 1759 to 1768:—

Ages.	Persons living.	Decr. of Life.	Ages.	Persons living.	Decr. of Life.	Ages.	Persons living.	Decr. of Life.
0	1518	486	31	404	9	62	132	7
1	1032	200	32	395	9	63	125	7
2	832	85	33	386	9	64	118	7
3	747	59	34	377	9	65	111	7
4	688	42	35	368	9	66	104	7
5	646	23	36	359	9	67	97	7
6	623	20	37	350	9	68	90	7
7	603	14	38	341	9	69	83	7
8	589	12	39	332	10	70	76	6
9	577	10	40	322	10	71	70	6
10	567	9	41	312	10	72	64	6
11	558	9	42	302	10	73	58	5
12	549	8	43	292	10	74	53	5
13	541	7	44	282	10	75	48	5
14	534	6	45	272	10	76	43	5
15	528	6	46	262	10	77	38	5
16	522	7	47	252	10	78	33	4
17	515	7	48	242	9	79	29	4
18	508	7	49	233	9	80	25	3
19	501	7	50	224	9	81	22	3
20	494	7	51	215	9	82	19	3
21	487	8	52	206	8	83	16	3
22	479	8	53	198	8	84	13	2
23	471	8	54	190	7	85	11	2
24	463	8	55	183	7	86	9	2
25	455	8	56	176	7	87	7	2
26	447	8	57	169	7	88	5	1
27	439	8	58	162	7	89	4	1
28	431	9	59	155	8	90	3	1
29	422	9	60	147	8			
30	413	9	61	139	7			

TABLE III.—MORTALITY.

Showing the true probability of life in London till the age of nineteen.

Ages.	Persons living.	Decr. of Life.	Ages.	Persons living.	Decr. of Life.
0	750	240	12	272	4
1	510	99	13	268	3
2	411	42	14	265	3
3	369	29	15	262	3
4	340	21	16	259	3
5	319	11	17	256	4
6	308	10	18	253	
7	298	7	19	249	
8	291	6	20	494	
9	285	5	21	487	
10	280	4	&c.	&c.	
11	276	4			

The numbers in the second column to be continued as in table I.

We thus give the most accredited observations on this important subject, up to a recent period. But in our article SURVIVORSHIP we hope to show that much greater accuracy of calculation is attainable by the table of Mr. Babbage: while we are writing, the government plan of annuities, formed on the above calculations in part, has been so successfully attacked by Mr. Ferguson, that a bill is on its passage through parliament for discontinuing the granting any more annuities upon it.

MORTANCESTRY, BRIEF OF, in Scots law, anciently the ground of an action at the instance of an heir, in the special case where he had been excluded from the possession of his ancestor's estate by the superior, or other person pretending right.

MORTAR, *n. s.* Belg. *morter*; Fr. *mortier*; Lat. *mortarium*. A strong utensil for pounding or braying various materials: hence a gun of the same shape; hence also the materials pounded or brayed: the common name for the cement made of lime, sand, &c.

Though thou shouldest bray a fool in a *mortar* among wheat with a pestle, yet will not his foolishness depart from him. *Proverbs.*

They had brick for stone, and slime for *mortar*. *Gen.* xi. 3.

I will tread this unbolted villain into *mortar*, and daub the wall of a jakes with him. *Shakspeare.*

Except you could bray Christendom in a *mortar*, and mould it into a new paste, there is no possibility of an holy war. *Bacon.*

The action of the diaphragm and muscles serves for the comminution of the meat in the stomach by their constant agitation upwards and downwards, resembling the pounding of materials in a *mortar*. *Ray on the Creation.*

Those arms which for nine centuries had braved
The wrath of time on antique stone engraved,
Now torn by *mortars* stand yet undefaced
On nobler trophies by thy valour raised. *Granville.*

Mortar, in architecture, is a preparation of lime and sand mixed up with water, serving as a cement, and used by masons and bricklayers in building of walls of stone and brick. Wolfius observes, that the sand should be dry and sharp, so as to prick the hands when rubbed, yet not earthy, so as to foul the water it is washed in: he also finds fault with masons and bricklayers as committing a great error, in letting their lime slacken and cool before they make up their *mortar*, and also in letting their *mortar* cool and die before they use it; therefore he advises, that if you expect your work to be well done, and to continue long, to work up the lime quick, and but a little at a time, that the *mortar* may not lie long before it be used. *Johnson.*

MORTAR. See CEMENT. Under that article is given Dr. Anderson's theory of mortar, which has received a farther confirmation by the discovery, that if the lime is slaked, and the mortar made up with lime-water instead of common water, the mortar will be much better. The reason is, that in common water, especially such as is drawn from wells, there is always a considerable quantity of carbonic acid gas, which, mingling with the mortar previous to its being used, spoils it by reducing the quick lime in part to an inert calcareous earth like chalk; but, when it is built up in a perfectly caustic state, it attracts the air so slowly, that it hardens into a kind of stony matter, as hard as was the rock from whence the lime-stone was taken. The ancients differed in the composition of their building cements, and indeed sometimes do not seem to have used any; the Greeks having possessed the art of joining the surfaces of their stones in so skilful a way that it is difficult to discover the points of union. Sometimes they fixed them together by means of wooden pegs or bolts; sometimes by cramp irons dovetailed, as has been observed in an Athenian temple, and in those of Agrigentes. In the instance of the Coliseum at Rome, as well as that of the amphitheatre at Verona, the freestone is held firmly by means of cramp irons, and without mortar. It is, however, possible that mortar might have been used of a nature sufficiently fine and subtle to blend and assimilate itself in course of time to the masses of which it formed the cement. A large reservoir constructed at Sparta with pebble-stone attests that the kind of mortar employed among the Greeks was extremely solid. The method followed by the Romans, both in making and using their mortar, was in some respects similar to our own. The sand used by them was of different colors and qualities. From the quarries they extracted three sorts—black, white, and red, of which the latter was deemed the preferable. Besides these, there was a volcanic sand, the produce of Etruria. Of all these varieties, to which must be added those of the rivers and of the sea, such were selected and esteemed as contained fewest earthy particles.

A MORTAR, in chemistry, is a utensil very useful for the division of bodies, partly by percussion and partly by grinding. Mortars have the form of an inverted bell. The matter intended to be pounded is to be put into them, and is struck and bruised by a long instrument called a pestle. The motion given to the pestle ought to vary according to the nature of the substances to be pounded. Those which are easily broken, or which are apt to fly out of the mortar, or which are hardened by the stroke of the pestle,

require that this instrument should be moved circularly, rather by grinding or bruising than by striking. Those substances which are softened by the heat occasioned by rubbing and percussion, require to be pounded very slowly. Those which are very hard, and not capable of being softened, are easily pounded by repeated strokes of the pestle. They require no bruising but when they are brought to a certain degree of fineness. As mortars are constantly necessary in chemistry, they ought to be kept of all sizes and materials; as of marble, copper, glass, iron, gritstone, and agate. The nature of the substance to be pounded determines the choice of the kind of mortar. The hardness and dissolving power of that substance are particularly to be attended to. One of the principal inconveniences of pulverisation in a mortar proceeds from the fine powder which rises abundantly from some substances during the operation. If these substances be precious, the loss will be considerable; and, if they be injurious to health, they may hurt the operator. These inconveniences may be remedied, either by covering the mortar with a skin, in the middle of which is a hole, through which the pestle passes, or by moistening the matter with a little water when this addition does not injure it; or, lastly, by covering the mouth and nose of the operator with a fine cloth, to exclude this powder. Some substances, as corrosive sublimate, arsenic, calxes of lead, cantharides, euphorbium, &c., are so noxious, that all these precautions ought to be used, particularly when a large quantity of them is pounded. Large mortars ought to be fixed upon a block of wood, so high that the mortar shall be level with the middle of the operator. When the pestle is large and heavy, it ought to be suspended by a cord or chain fixed to a moveable pole, placed horizontally above the mortar: this pole considerably relieves the operator, because its elasticity assists the raising of the pestle.

Mortar. Fr. mortier. In the military art a short piece of ordinance, thick and wide, having a chamber less than the size of its bore, and used to discharge bombs or carcasses into a fortified place. The bomb, or shell, is a great hollow ball, filled with powder, which, falling into a fortification, &c., destroys the most substantial buildings by its weight, and, bursting asunder, creates the greatest disorder and mischief by its splinters. To prevent the shell from bursting at the first moment of discharge, it is furnished with a fuse, calculated to continue burning during its flight; and, to increase the weight of its fall, the mortar is elevated to a considerable angle above the horizon. The chambers of mortars are extremely different in their figures, and each of those figures is defended by better or worse arguments. Thus they are spherical, cylindrical, conical, bottled, or concave. Indeed, nothing appears to be less determined upon true principles or experiments than the proportions of the several parts of a mortar.

Mortars, Land, are those used in sieges, and in battles, mounted on beds made of solid timber, consisting generally of four pieces, those of the royal and Cohorn excepted, which are but one single block; and both mortar and bed are transported on block carriages. There is likewise a kind of land mortars, mounted on travelling carriages, invented by count Buckeburg, which may be elevated to any degree; whereas ours are fixed to an angle of 45°, and firmly lashed with ropes. The following table shows the weight of land-mortars and shells; together with the quantity of powder the chambers hold when full; the weight of the shells, and powder for loading them:—

Diameter of Mortars.	13-inch.	10-inch.	8-inch.	5·8 inch royal.	4·6 inch cohorn.
	cwt. qr. lb.	cwt. qr. lb.	cwt. qr. lb.	cwt. qr. lb.	cwt. qr. lb.
Mortar's weight . .	25 0 0	10 2 18	4 0 20	1 1 0	0 3 0
Shell's weight . . .	1 2 15	0 2 25	0 1 15	0 0 12	0 0 7
	lb. oz. gr.	lb. oz. gr.	lb. oz. gr.	lb. oz. gr.	lb. oz. gr.
Shell's content of powder .	9 4 8	4 14 12	2 3 8	1 1 8	0 8 0
Chamber's cont. of powder	9 1 8	4 0 0	2 0 10	1 0 0	0 8 0

An elevation of 70° or 80° is commonly chosen for rendering mortars most serviceable in casting shells into towns, forts, &c., though the greatest range be at 45°. All the English mortars are fixed to an angle of 45°, and lashed strongly with ropes at that elevation; although in a siege there is only one case in which shells should be thrown with an angle of 45°; that is, when the battery is so far off that they cannot otherwise reach the works: for when shells are thrown out of the trenches into the works of a fortification, or from the town into the trenches, they should have as little elevation as possible, in order to roll along, and not bury themselves; whereby the damage they do, and the terror they occasion, are much greater than if they sink into the ground. On the contrary, when shells are thrown upon magazines or any other buildings with an intention to destroy them, the mortars should be elevated as high as possible, that the shells may acquire a greater force in their fall, and consequently do greater execution. If all mortar-pieces were, as they ought to be, exactly similar, and their requisites of powder as the cubes of the diameters of their several bores, and if their shells, bombs, carcasses, &c. were also similar; then, comparing like with like, their ranges on the plane of the horizon, under the same degree of elevation, would be equal; and consequently one piece being well proved, i.e. the range of the grenado, bomb, carcase, &c., being found to any degree of elevation,

the whole work of the mortar-piece would become very easy and exact. But, as mortars are not thus similar, it is required that the range of the piece, at some known degree of elevation, be accurately found by measuring; and hence all the other ranges may be determined. Thus, to find the range of the piece at any other elevation required; say, as the sine of double the angle under which the experiment was made is to the sine of double the angle proposed, so is the range known to the range required. Suppose, for instance, it be found, that the range of a piece, elevated to 30°, is 2000 yards: to find the range of the same piece with the same charge, when elevated to 45°, take the sine of 60°, the double of 30°, and make it the first term of the rule of three; the second term must be the sine of 90°, the double of 45°; and the third the given range 2000; the fourth term will be 2310, the range of the piece at 45°. If the elevation be greater than 45°, instead of doubling it, take the sine of double its complement to 90°. As, suppose the elevation of a piece be 50°, take the sine of 80°, the double of 40°. Again, if a determinate distance to which a shot is to be cast be given, and the angle of elevation to produce that effect be required; the range known must be the first term in the rule of three, which suppose 2000 yards; the range proposed, which we suppose 1600 yards, the second term; and the sine of sixty double of the elevation for the range of 2000 yards, the third term. The fourth term will be found the sine of 43° 52′, whose half 21° 56′ is the angle of elevation the piece must have to produce the desired effect. And, if 21° 56′ be taken from 90°, you will have 68° 4′ for the other elevation of the piece, with which the same effect will likewise be produced. To avoid the trouble of finding sines of double the angles of proposed elevations, Galileo and Torricelli give us the following table, wherein the sines of the angles sought are had by inspection:

Deg.	Deg.	Rang.	Deg.	Deg.	Rang.
90	0	0	0	0	0
89	1	349	66	24	7431
88	2	698	65	25	7660
87	3	1045	64	26	7880
86	4	1392	63	27	8090
85	5	1736	62	28	8290
84	6	2709	61	29	8480
83	7	2419	60	30	8660
82	8	2556	59	31	8829
81	9	3090	58	32	8988
80	10	3420	57	33	9135
79	11	3746	56	34	9272
78	12	4067	55	35	9397
77	13	4384	54	36	9511
76	14	4695	53	37	9613
75	15	5000	52	38	9703
74	16	5299	51	39	9781
73	17	5592	50	40	9841
72	18	5870	49	41	9903
71	19	6157	48	42	9945
70	20	6428	47	43	9976
69	21	6691	46	44	9994
68	22	6947	45	45	10000
67	23	7193			

The use of the table is obvious. Suppose, for instance, it be known by experiment that a mortar elevated 15°, charged with three lbs. of powder, will throw a bomb to the distance of 350 fathoms; and it be required, with the same charge, to throw a bomb 100 fathoms farther; seek in the table the number answering to 15°, and you will find it 5000. Then as 350 is to 450, so is 5000 to a fourth number, which is 6428. Find this number in the table, and opposite to it you will find the elevation of the mortar.

To load the mortar the proper quantity of gunpowder is put into the chamber, and if there be any vacant space they fill it up with hay; some choose a wooden plug; over this they lay a turf, some a wooden tampion fitted to the bore of the piece; and lastly the bomb; taking care that the fuse be in the axis thereof, and the orifice be turned from the muzzle of the piece: what space remains is to be filled up with hay, straw, turf, &c., so as the load may not be exploded without the utmost violence. The quantity of gunpowder to be used is found by dividing the weight of the bomb by thirty; though this rule is not always to be strictly observed. When the proper quantity of powder necessary to charge a sea mortar is put into the chamber, it is covered with a wad well beat down with the rammer. After this the fixed shell is placed upon the wad, as near the middle of the mortar as possible, with the fuse-hole uppermost, and another wad pressed down close upon it, so as to keep the shell firm in its position. The officer then points the mortar according to the proposed inclination. When the mortar is thus fixed, the fuse is opened; the priming iron is also thrust into the touch-hole of the mortar to clear it, after which it is primed with the finest powder. This done, two of the matrosses or sailors, taking each one of the matches, the first lights the fuse, and the other fires the mortar. The bomb, thrown out by the explosion of the powder, is carried to the place intended: and the fuse, which ought to be exhausted at the instant of the shell's falling, inflames the powder contained in it, and bursts the shell into splinters; which, flying off circularly, occasion incredible mischief wheresoever they reach. If the service of mortars should render it necessary to use pound-shots, 200 of them with a wooden bottom are to be put into the thirteen-inch mortar, and a quantity of powder not exceeding five pounds; and 100 of the above shot with two pounds and a half of powder, for the ten-inch mortar, or three pounds at most. Carcasses are also thrown out of them. There are a sort of shells with five holes, filled with pitch, and other combustibles, in order to set buildings on fire: and sometimes baskets full of stones, the size of a man's fist, are thrown out of them upon an enemy placed in the covertway during a siege.

Mortars, Sea, are those which are fixed in the bomb-vessels for bombarding places by sea: and, as they are generally fired at a much greater distance than that which is required by land, they are made somewhat longer and much heavier than the land mortars. The following table exhibits the weight of the sea-mortars and shells, and also of their full charges:—

Nature of the Mortar.	Powder contained in the chamber when full.		Weight of the Mortar.			Weight of the shell when fixed.	Weight of powder contained in the shell.	
	lb.	oz.	cwt.	qr.	lb.	lb.	lb.	oz.
10-inch howitzer .	12	0	31	2	26			
13-inch mortar . .	30	0	81	2	1	198	7	0
10-inch mortar . .	12	0	34	2	11	93		

MORT'GAGE, *n.s.* & *v.a.* } Fr. *mort* and
MORT'GAGEE, *n. s.* } *gage*. A dead
MORT'GAGER. } pledge; a thing put into the hands of a creditor; state of being pledged: the mortgagee is he who takes, and the mortgager he who gives, in mortgage. See below.

They make the widow's *mortgaged* ox their prey. *Sandys.*

The land is given in *mortgage* only, with full intention to be redeemed within one year. *Bacon.*

Let men contrive how they disentangle their *mortgaged* souls. *Decay of Piety.*

An act may pass for public registries of land, by which all purchasers or *mortgagees* may be secured of all monies they lay out. *Temple's Miscellanies.*

The estate runs out, and *mortgages* are made,
Their fortune ruined, and their fame betrayed. *Dryden.*

The broker,
Bent on some *mortgage*, to avoid reproach,
He seeks bye-streets, and saves the expensive coach. *Gay.*

The Romans do not seem to have known the secret of paper credit, and securities upon *mortgages*. *Arbuthnot.*

Their not abating of their expensive way of living has forced them to *mortgage* their best manors. *Id.*

Some have his lands, but none his treasured store,
Lands unmanured by us, and *mortgaged* o'er and o'er. *Harte.*

No man can *mortgage* his injustice as a pawn for his fidelity. *Burke.*

MORTGAGE, in English law (mortuum vadium, or dead pledge), is where a man borrows of another a specific sum (*e. g.* £200), and grants him an estate in fee, on condition that if he, the mortgager, shall pay the mortgagee the said sum of £200 on a certain day mentioned in the deed, the mortgager may then re-enter on the estate so granted in pledge; or, as is now the more usual way, that the mortgagee shall re-convey the estate to the mortgager: in this case the land which is so put in pledge is, by law, in case of non-payment at the time limited, for ever dead and gone from the mortgager; and the mortgagee's estate in the lands is then no longer conditional, but absolute. But so long as it continues conditional, that is, between the time of lending the money and the time allotted for payment, the mortgagee is called tenant in mortgage. But as it was formerly a doubt, whether, by taking such estate in fee, it did not become liable to the wife's dower, and other incumbrances of the mortgage (though that doubt has been long ago over-ruled by our courts of equity), it therefore became usual to grant only a long term of years, by way of mortgage; with condition to be void on repayment of the mortgage money; which course has been since continued, principally because, on the death of the mortgagee, such terms become vested in his personal representatives, who alone are entitled in equity to receive the money lent, of whatever nature the mortgage may happen to be. As soon as the estate is created, the mortgagee may immediately enter on the lands; but is liable to be dispossessed, upon performance of the condition by payment of the mortgage money at the day limited. And therefore the usual way is to agree that the mortgager shall hold the land till the day assigned for payment; when, in case of failure, whereby the estate becomes absolute, the mortgagee may enter upon it and take possession, without any possibility at law of being afterwards evicted by the mortgager, to whom the land is now for ever dead. But here again the courts of equity interpose; and though a mortgage be thus forfeited, and the estate absolutely vested in the mortgagee at the common law, yet they will consider the real value of the tenements compared with the sum borrowed. And, if the estate be of greater value than the sum lent thereon, they will allow the mortgager at any reasonable time to recal or redeem his estate; paying to the mortgagee his principal, interest, and expenses: for otherwise, in strictness of law, an estate worth £1000 might be forfeited for non-payment of £100, or a less sum. This reasonable advantage allowed to mortgagers is called the equity of redemption; and this enables a mortgager to call on the mortgagee, who has possession of his estate, to deliver it back, and account for the rents and profits received on payment of his whole debt and interest, thereby turning the mortgage into a kind of vivum vadium. See VADIUM. But, on the other hand, the mortgagee may either compel the sale of the estate, in order to get the whole of his money immediately; or else call upon the mortgager to redeem his estate presently, or, in default thereof, to be for ever foreclosed from redeeming the same; that is, to lose the equity of redemption, without possibility of recall. And also, in some cases of fraudulent mortgages, the fraudulent mortgager forfeits all equity of redemption whatsoever. It is not, however, usual for mortgagees to take possession of the mortgaged estate, unless where the security is precarious, or small; or where the mortgager neglects even the payment of interest; when the mortgagee is often obliged to bring an ejectment, and take the lands into his own hands, in the nature of a pledge, or the pignus of the Roman law: whereas, while it remains in the hands of the mortgager, it more resembles their hypotheca, which was where the possession of the thing pledged remained with the debtor. But by statute 7 Geo. II. c. 20, after payment or

tender by the mortgager of principal, interest, and costs, the mortgagee can maintain no ejectment; but may be compelled to re-assign his securities. In Glanville's time, when the universal method of conveyance was by livery of seisin or corporal tradition of the lands, no gage or pledge of lands was good unless possession was also delivered to the creditor: si non sequator ipsius vadii traditio, curia domini regis hujusmodi privatas conventiones tueri non solet: for which the reason given is, to prevent subsequent and fraudulent pledges of the same land; cum in tali casu possit eadem res pluribus aliis creditoribus, tum prius tum posterius, invadiari. And the frauds which have arisen, since the exchange of these public and notorious conveyances for more private and secret bargains, have well evinced the wisdom of the ancient law.

MORTIER, an ensign of dignity, borne by the ci-devant chancellor and grand presidents of the parliament of France. That borne by the chancellor was a piece of cloth of gold, edged and turned up with ermine; and that of the first president a piece of black velvet, edged with a double row of gold lace, while those of the other presidents were only edged with a single row. These they carried on their heads, in grand ceremonies, such as the entry of the king; but ordinarily they carried them in their hands.

MORTIF'EROUS, *adj.* } Latin, *mortifer*;
MOR'TIFY, *v.a.* & *v.n.* } Fr. *mortifier*, *mortification*.
MORTIFICA'TION, *n.s.* }

Deadly; fatal: to mortify is to destroy vital or active powers; hence to subdue passion; to vex; distress: and hence to harass; macerate; reduce the body under mental discipline: as a neuter verb, to corrupt; gangrene; be subdued; decayed; practice religious severity: mortification follows all these senses.

Let my liver rather heat with wine,
Than my heart cool with *mortifying* groans.
Shakspeare.

The breath no sooner left his father's body,
But that his wildness *mortified* in him,
Seemed to die too. *Id. Henry V.*

Their dear causes
Would to the bleeding and the grim alarm
Excite the *mortified* man. *Id. Macbeth.*

It appeareth in the gangrene, or *mortification* of flesh, either by opiates, or intense colds. *Bacon.*

Inquire what gives impediment to union or restitution, which is called *mortification*; as when quicksilver is *mortified* with turpentine. *Id.*

He *mortified* pearls in vinegar, and drunk them up. *Hakewill.*

These murmurings, like a *mortiferous* herb, are poisonous even in their first spring.
Government of the Tongue.

What is it but a continued perpetuated voice from heaven, to give men no rest in their sins, no quiet from Christ's importunity, till they awake from the lethargick sleep, and arise from so dead, so *mortiferous* a state, and permit him to give them life?
Hammond.

Let the penitent be infinitely careful that he does not *mortifie* one vicious habit by a contrary vice, but by a contrary virtue. For to what purpose is it that you are cured of prodigality, and then die by covetousness. *Jer. Taylor.*

My griefs ferment and rage,
Nor less than wounds immedicable,
Rankle and fester, and gangrene,
To black *mortification.* *Milton's Agonistes.*

The elevation of that mysterious serpent upon a pole did render it visible, and attracted the eyes of people toward it; whereby God's power invisibly accompanying that sacramental performance, they were cured of those *mortiferous* stings which they had received. *Barrow.*

We *mortify* ourselves with fish, and think we fare coarsely if we abstain from flesh. *Browne.*

Oil of tartar per deliquium has a great faculty to find out and *mortify* acid spirits. *Boyle.*

The *mortification* of our lusts has something in it that is troublesome, yet nothing that is unreasonable.
Tillotson.

Mortifyed he was to that degree,
A poorer than himself he would not see.
Dryden.

It is one of the vexatious *mortifications* of a studious man, to have his thoughts disordered by a tedious visit. *L'Estrange.*

We had the *mortification* to lose the sight of Munich, Augsburg, and Ratisbon. *Addison on Italy.*

How often is the ambitious man *mortified* with the very praises he receives, if they do not rise so high as he thinks they ought. *Id. Spectator.*

Suppress thy knowing pride,
Mortify thy learned lust;
Vain are thy thoughts, while thou thy thyself art dust. *Prior.*

A diet of some fish is more rich and alkalescent than that of flesh, and therefore very improper for such as practise *mortification*.
Arbuthnot on Aliments.

He modestly conjectures,
His pupil might be tired with lectures,
Which helped to *mortify* his pride. *Swift.*

This makes him careful of every temper of his heart, give alms to all that he hath, watch, and fast, and *mortify*, and live according to the strictest rules of temperance, meekness, and humanity. *Law.*

You see no real *mortification*, or self-denial, no eminent charity, no profound humility, no heavenly affection, no true contempt of the world, no Christian weakness, no sincere zeal, or eminent piety, in the common lives of Christians. *Id.*

With fasting *mortifyed*, worn out with tears,
And bent beneath the load of seventy years.
Harte.

It is a great *mortification* to the vanity of man, that his utmost art and industry can never equal the meanest of nature's productions, either for beauty or value. *Hume.*

If our hopes and joys centre here, it is a *mortifying* thought that we are every day departing from our happiness; but, if they are fixed above, it is a joy to think that we are every day drawing nearer to the object of our highest wishes. *Mason.*

Not many wise, rich, noble, or profound
In science, win one inch of heavenly ground,
And is it not a *mortifying* thought
The poor should gain it and the rich should not?
Cowper.

MORTIFICATION, in medicine and surgery, is a total extinction of the natural heat of the body, or a part thereof. Some define mortification a disease, wherein the natural juices of any part quite lose their proper motion: and thus fall into a fermentative one, and corrupt and destroy the texture of the part. Surgeons divide mortification into two species, the one preceded by in-

flammation, the other without it. In inflammations terminating in mortifications, there is a diminution of power joined to an increased action; this becomes a cause of mortification, by destroying the balance of power and action, which ought to exist in every part. There are, however, cases of mortification that do not arise wholly from that as a cause: of this kind are the carbuncle, and the slough, formed in the small-pox pustule. Healthy phlegmonous inflammation seldom ends in mortification, though it occasionally does so when very vehement and extensive. Erysipelatous inflammation is observed most frequently to terminate in gangrene; and whenever phlegmon is in any degree conjoined with an erysipelatous affection, which it not unfrequently is, it seems thereby to acquire the same tendency, being more difficult to bring to resolution, or suppuration, than the true phlegmon, and more apt to run into a mortified state.

Causes which impede the circulation of the part affected, will occasion mortification, as is exemplified in strangulated hernia, tied polypi, or a limb deprived of circulation from a dislocated joint.

Preventing the entrance of arterial blood into a limb is also another cause. Paralysis, conjoined with pressure, old age, and ossification of the arteries, may produce mortification; also cold, particularly if followed by the sudden application of warmth; and likewise excessive heat applied to a part.

The symptoms of mortification that take place after inflammation are various, but generally as follows:—the pain and sympathetic fever suddenly diminish, the part affected becomes soft, and of a livid color, losing at the same time more or less of its sensibility.

When any part of the body loses all motion, sensibility, and natural heat, and becomes of a brown livid or black color, it is said to be affected with sphacelus. When the part becomes a cold, black, fibrous, senseless substance, it is termed a slough. As long as any sensibility, motion, and warmth continue, the state of the disorder is said to be gangrene. When the part has become quite cold, black, fibrous, incapable of moving, and destitute of all feeling, circulation, and life; this is the second state of mortification, termed sphacelus.

When gangrene takes place the patient is usually troubled with a kind of hiccough: the constitution always suffers an immediate dejection, the countenance assumes a wild cadaverous look, the pulse becomes small, rapid, and sometimes irregular; cold perspirations come on, and the patient is often affected with diarrhœa and delirium. See SURGERY.

MORTIFICATION, in religion, is any severe penance observed on a religious account. The practice has been very ancient and almost universal. See FAST.

MORTIMAR (Athenais de), marchioness Montespan, wife of the marquis of Montespan, and one of Louis XIV's mistresses, who by her wit and beauty gained a complete ascendancy over that monarch. Her husband, instead of thinking himself honored by the connexion, became enraged, and even struck her in the palace, for which he was banished to his estate; but 100,000 crowns purchased his silence, his wife, and his honor. She held the monarch captive till 1675, when he became the victim of Mad. de Maintenon's superior charms. These two rivals, however, kept up an intimacy, and even agreed to write memoirs of all that passed at court, but the work was never completed. Athenais had three children by Louis; a son created duke of Maine, and married to a grand daughter of the great Conde, and two daughters, married, the one to a grandson of that prince, and the other to the duke of Chartres. She died at Bourbon in 1717.

MORTIMER (John Hamilton), an English artist, born at East Bourne in Sussex, in 1738. He studied under his uncle; afterwards under Hudson and Sir Joshua Reynolds. In 1779 the king appointed him a royal academician, but he died that year at his house in Norfolk Street, aged forty. King John granting the Magna Charta to the barons, and the battle of Agincourt, two of his best pictures, have been engraved. The first was nearly finished by Mr. Ryland and completed by Mr. Bartalozzi. His piece representing St. Paul converting the Britons gained the Society's prize of 100 guineas.

MORTIMER (Thomas), was born in London in 1730, and received a liberal education. He obtained early in life the appointment of his majesty's vice-consul for the Austrian Netherlands; but, having been displaced, he adopted the profession of an author, which he exercised with great assiduity and respectability. His chief works are, The British Plutarch, 1762, 6 vols. 12mo; Dictionary of Trade and Commerce, 1766, 2 vols. folio; The Elements of Commerce, Politics, and Finances, 1772, 4to, of which a German translation, by J. A. Englebrecht, was published at Leipsic in 1781; History of England, 3 vols. folio; and the Student's Pocket Dictionary, or Compendium of History, Chronology, and Biography, 12mo. He also translated Necker's Treatise on the Finances of France; and edited Beawes's Lex Mercatoria. In 1809 Mr. M. published a General Dictionary of Commerce, Trade, and Manufactures, 8vo, distinct from his former dictionary, and died in December of that year.

MORTISE, *n. s.* & *v. a.* Fr. *mortaise*; Wel. *mortaise*, or *mortoise*: Ital. *mortis*. A joint in wood; to make such a joint.

> The walls of spider's legs are made,
> Well *mortised* and finely laid.
> *Drayton's Nymphid.*

> 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*. *Shakspeare. Othello.*

> 'Tis a massy wheel,
> To whose huge spoke ten thousand lesser things
> Are *mortised* and adjoined. *Id. Hamlet.*

The tree is raised up; and now, not without a vehement concussion, settled in the *mortise*.
Bp. Hall.

Under one skin are parts variously mingled, some with cavities, as *mortises* to receive, others with tenons to fit cavities. *Ray.*

The one half of the ship being finished, and by help of a screw launched into the water, the other half was joined by great brass nails *mortised* with lead. *Arbuthnot on Coins.*

MORT'MAIN, *n. s.* Fr. *morte* and *main.* Such a state of possession as makes it unalienable; whence it is said to be in a dead hand, or one that cannot dispose of the property.

It were meet that some small portion of lands were allotted, since no more *mortmains* are to be looked for. *Spenser.*

MORTMAIN. I. DEFINITION.—The alienation, or transfer of lands and tenements, is prohibited by the statutes of mortmain from being made to any corporation without the king's license, and that of the lord of the manor. The term mortmain is used because it is the policy of the law that the services or profits attached to or arising out of lands should not, without license, come into a dead hand, or one so dedicated to pious uses as to be different from other lands or hereditaments, and not to revert to any temporal or common use.

II. COMMON LAW.—By the common law any man might dispose of his lands to any other private man at his own discretion, especially when the feudal restraints were worn away; yet it always was, and still is, necessary for corporations to have a license in mortmain to enable them to purchase lands. Such licenses were necessary among the Saxons before the Norman conquest. The influence and ingenuity of the clergy, however, soon surmounted this obstacle, and the most considerable acquisitions of religious houses happened within two centuries of the conquest. When a license could not be obtained it was contrived that, as the forfeiture for alienation accrued in the first place to the immediate lord of the fee, the tenant who meant to alienate first conveyed his lands to the religious house, and instantly took them back again, to hold as tenant to the monastery; which kind of instantaneous seisin was probably held not to occasion any forfeiture: and then, by pretext of some other forfeiture, surrender, or escheat, the society entered into those lands, in right of such their newly acquired seigniory, as immediate lords of the fee. When these donations began to grow numerous it was observed that the feudal services ordained for the defence of the kingdom were every day visibly withdrawn; that the circulation of landed property from man to man began to stagnate; and that the lords were curtailed of the fruits of their seigniories, their escheats, wardships, reliefs, and the like. Hence originated the several statutes of mortmain, the substance of which we now proceed to state.

III. STATUTES.—By Magna Charta, cap. 36, it is declared that it shall not be lawful for any person to give his lands to any religious house, and to take the same land again to hold of the same house, &c., upon pain that the gift shall be void, and the land shall accrue to the lord of the fee.

This prohibition, however, extending only to religious 'houses,' bishops and other sole corporations were not included therein; and the aggregate ecclesiastical bodies found many means to evade the statute, by buying lands that were bonâ fide held of themselves as lords of the fee, and thereby evading the forfeiture; or by taking long leases for years, which first introduced those extensive terms for 1000 or more years, which are now so frequent in conveyances. The devices thus resorted to produced the statute de religiosis, 7 Ed. I., commonly called the statute of mortmain, which provided that no person, religious or other whatsoever, should buy or sell, or receive, under pretence of a gift, or term of years, or any other title whatsoever, nor should, by any art or ingenuity, appropriate to himself any lands or tenements in mortmain, upon pain that the immediate lord of the fee, or on his default for one year the lords paramount, and in default of all of them the king might enter thereon as a forfeiture. This seemed to be a sufficient security against all alienations in mortmain; but, as these statutes extended only to gifts and conveyances between the parties, the religious houses began to set up a fictitious title to the lands which it was intended they should have, and to bring 'an action to recover' it against the tenant who, by fraud and collusion, made no defence, and thereby judgment was given for the religious house, which then recovered the land by sentence of law upon a supposed prior title, and thus they had the honor of inventing those fictitious adjudications of right which have since become the great assurance of the kingdom under the title of common recoveries.

This new evasion was followed by the statute of Westminster 13 Edw. I. c. 32, which enacted that in such cases a jury shall try the true right of the demandants or plaintiffs to the land, and if the religious house or corporation be found to have it, they shall still recover seisin, otherwise it shall be forfeited in the manner prescribed by the former act. Still the bounds were not sufficiently set to ecclesiastical ingenuity. When thus driven out of the former holds, a new method of conveyance was devised, by which the lands were granted not to themselves directly, but to nominal feoffees to the use of the religious houses: thus distinguishing between the possession and the use, and receiving the actual profits, while the seisin of the lands remained in the nominal feoffee; who was held by the courts of equity (then under the direction of the clergy) to be bound in conscience to account to his cestui que use for the rents and emoluments of the estate. And it is to these inventions that our practisers are indebted for the introduction of uses and trusts, the foundation of modern conveyancing.

The statute of 15 Rich. II., c. 5, soon curtailed this new device, and enacted that lands which had been so purchased to uses should be amortised by license from the crown, or else be sold to private persons; and that for the future uses should be subject to the statute of mortmain, and forfeitable like the lands themselves. And as the statutes had been eluded by purchasing large tracts of land adjoining to churches, and consecrating them by the name of church-yards, such subtile imagination is also declared to be within the compass of the statutes of mortmain. Civil or lay corporations, as well as ecclesiastical, are also declared to be within the mischief pro-

vided against, and of course within the remedy provided by those salutary laws. And lastly, as, during the times of popery, lands were frequently given to superstitious uses, though not to any corporate bodies; or were made liable in the hands of heirs or devisees, to the charge of obits, chaunteries, and the like, which are equally pernicious in a well-governed state, as actual alienations in mortmain; therefore at the reformation the statute 23 Hen. VIII., c. 10, declares that all future grants of lands for any of the purposes aforesaid, for a longer term than twenty years, shall be void. The crown, however, had the power, during all this time, by granting a license of mortmain, to remit the forfeiture so far as related to its own rights, and to enable any spiritual or other corporation to purchase and hold any lands or tenements in perpetuity; which prerogative was confirmed by 18 Edw. III. stat. 3, c. 3, and subsequently by 7 and 8 Will. III. c. 37.

By the 39th Eliz. c. 5 the gift of lands, &c., to hospitals is permitted without obtaining licenses of mortmain. For the purpose of augmenting poor livings, it was also enacted, by 17 Car. II. c. 3, that appropriators may annex the great tithes to the vicarages; and that all benefices under £100 per annum may be augmented by the purchase of lands, without license of mortmain in either case. The like provision has been since made in favor of the governors of queen Anne's bounty, 2 and 3 Ann. c. 11.

To prevent, however, persons on their deathbeds from making large and improvident grants, even for good purposes, and defeating the political ends of the statute of mortmain, it is enacted, by 9 Geo. II. c. 36, that no lands or tenements, or money to be laid out thereon, shall be given for, or charged with, any charitable uses whatsoever, unless by deed indented, executed in the presence of two witnesses, twelve calendar months before the death of the donor, and enrolled in the court of chancery within six months after its execution (except stocks in the public funds which may be transferred within six months previous to the donor's death), and unless such gift be made to take effect immediately, and be without power of revocation: and that all other gifts shall be void.

IV. Construction of the Statutes.—It has been held that the statute 32 Hen. VIII. c. 10, did not extend to any thing but superstitious uses, and that therefore a man may give lands for the maintenance of a school, an hospital, or any other charitable use. 1 Rep. 24. It has been declared since the last mortmain act, that there is no restriction whatsoever upon any one from leaving a sum of money by will, or any other personal estate, to charitable uses; provided it be to be continued as a personalty, and the executors or trustees are not obliged or under a necessity of laying it out in land, by virtue of any direction of the testator for that purpose. 2 Burn Ecc. 509. A bequest of money to be laid out in land for the establishment of a minister of a chapel is void, and cannot be supported by supposing a discretion in the trustees not to lay it out in land, the directions in the will being imperative. 1 Vesey 548.

Money left to repair parsonage houses, or to build upon land already in mortmain, is held not to be within the statute. But a legacy to the corporation of queen Anne's bounty is void, as by the rules of the corporation it must be laid out in land.

Though every corporation was capable, at the common law, of purchasing lands for themselves and successors, they cannot now, whether ecclesiastical or lay, purchase without license from the crown. This license is usually granted by act of parliament, charter of incorporation, or letters patent, and charities which are not thus licensed choose from among themselves certain persons to be trustees, and to purchase in their names, and take the lands in trust for the charity. If bought in the name of the institution, not being incorporated, they would instantly vest in the crown, as a forfeiture in mortmain. The stat. 9 Geo. II. c. 36 is so construed by the courts as to give it full force; yet all proper encouragement is given to those gifts and bequests to charities which do not contravene the policy of the statute of mortmain. And although the gift of money or personal estate 'to be laid out in lands' for charitable uses is prohibited, yet money or other personalty given generally is not forbidden. So a gift of money to be laid out in lands or otherwise to a charitable use is valid, on account of the option given to lay it out in personal securities.

The courts also favor bequests made for intended charities, though not existing at the time of making the will. The two universities, their colleges, and the scholars upon the foundation of the colleges of Eton, Winchester, and Westminster, are excepted by the 9 Geo. II. c. 36; but the latter part of the exception being confined to any disposition 'for the better support and maintenance of the scholars only upon those foundations,' a device for any other purpose would probably be declared void. A bequest to trustees of real and personal estate, for the purpose of establishing a perpetual botanical garden, was declared void upon the expression of the testator that 'he trusted it would be a public benefit.'—6 *Vesey* 194.

MORTON (Thomas), a learned English bishop in the seventeenth century, bred at St. John's College, Cambridge, and logic-lecturer of the university. After several preferments he was advanced to the see of Chester in 1615, and translated to that of Litchfield and Coventry in 1618. In 1632 he was translated to the see of Durham, in which he sat with great reputation till the opening of the long parliament, which met in 1640; when he was committed twice to custody. The parliament, upon the dissolution of bishoprics, voted him £800 a year, of which he received but a small part. He died in 1659, in the ninety-fifth year of his age, and forty-fourth of his consecration. He published Apologia Catholica, and several other works; and was a man of extensive learning and great piety.

MORT'PAY, *n. s.* Fr. *mort* and *pay*. Dead pay; payment not made.

This parliament was merely a parliament of war, with some statutes conducing thereunto; as the

severe punishing of *mortpayes*, and keeping back of soldier's wages. *Bacon.*

MORTRESS, *n. s.* Abridged from *mortier de sagesse.*—Skinner. A dish of meat of various kinds beaten together.

A *mortress* made with the brawn of capons, stamped, strained, and mingled with like quantity of almond butter, is excellent to nourish the weak.
Bacon's Natural History.

MORTUARY, *n. s.* Fr. *mortuaire;* Lat. *mortuarium.* A gift left by a man at his death to his parish church, for recompense of personal tythes and offerings not duly paid.

Mortuary, in law, is a sort of ecclesiastical heriot, being a customary gift claimed by and due to the minister in very many parishes on the death of his parishioners. It seems originally to have been only a voluntary bequest to the church; being intended, as Lyndewode informs us from a constitution of archbishop Langham, as a kind of expiation and amends to the clergy for the personal tithes, and other ecclesiastical duties, which the laity in their life time might have neglected or forgotten to pay. For this purpose, after the lord's heriot or best good was taken out, the second best chattel was reserved to the church as a mortuary. And therefore, in the laws of king Canute, this mortuary is called soul-scot, or symbolum animæ. And in pursuance of the same principle by the laws of Venice, where no personal tithes had been paid during the life of the party, they were paid at his death out of his merchandise, jewels, and other moveables. So also, by a similar policy in France, every man that died without bequeathing a part of his estate to the church, which was called dying without confession, was formerly deprived of Christian burial; or, if he died intestate, the relations of the deceased, jointly with the bishop, named proper arbitrators to determine what he ought to have given to the church, in case he had made a will. But the parliament, in 1409, redressed this grievance. It was anciently usual in England to bring the mortuary to church along with the corpse when it came to be buried; and thence it is sometimes called a corse-present: a term which bespeaks it to have been once a voluntary donation. However, in Bracton's time, so early as Henry III., we find it rivetted into an established custom: insomuch that the bequests of heriots and mortuaries were held to be necessary ingredients in every testament of chattels. Imprimis autem debet quilibet, qui testamentum fecerit, dominum suum de meliori re quam habuerit recognoscere; et postea ecclesiam de alia meliori; the lord must have the best good left him as an heriot; and the church the second best as a mortuary. But yet this custom was different in different places: in quibusdam locis habet ecclesia melius, animal de consuetudine; in quibusdam secundum, vel tertium melius: et in quibusdam nihil: et ideo consideranda est consuetudo loci. In Wales a mortuary or corse-present was due, upon the death of every clergyman, to the bishop of the diocese; till abolished upon a recompence given to the bishop, by the stat. 12 Ann. st. 2, c. 6. And in the archdeaconry of Chester a custom also prevailed that the bishop, who is also archdeacon, should have, at the death of every clergyman dying therein, his best horse or mare, bridle, saddle, and spurs; his best gown or cloak, hat, upper garment under his gown, and tippet, and also his best signet or ring. But, by stat. 28 Geo. II. c. 6, this mortuary is directed to cease, and the act has settled upon the bishop an equivalent in its room. The king's claim to many goods, on the death of all prelates in England, seems to be of the same nature; though Sir Edward Coke apprehends that this is a duty upon death, and not a mortuary; a distinction which seems to be without a difference. For not only the king's ecclesiastical character, as supreme ordinary, but also the species of the goods claimed, which bear so near a resemblance to those in the archdeaconry of Chester, which was an acknowledged mortuary, puts the matter out of dispute. The king, according to the record vouched by Sir E. Coke, is entitled to six things; the bishop's best horse or palfrey, with his furniture; his cloak or gown, and tippet; his cup and cover; his basin and ewer; his gold ring; and lastly his muta canum, his mew or kennel of hounds. This variety of customs with regard to mortuaries, giving frequently a handle to exactions on one side, and frauds or expensive litigations on the other, it was thought proper, by stat. 21 Hen. VIII. c. 6, to reduce them to some kind of certainty. For this purpose it is enacted that all mortuaries, or corse presents to parsons of any parish, shall be taken in the following manner, unless where by custom less or at all none is due: viz. for every person who does not leave goods to the value of ten marks, nothing: for every person who leaves goods to the value of ten marks, and under £30, 3*s.* 4*d.*; if above £30 and under £40, 6*s.* 8*d.*; if above £40, of what value soever they may be, 10*s.*, and no more. And no mortuary shall, throughout the kingdom, be paid for the death of any feme-covert; nor for any child; nor for any one of full age, that is not a housekeeper; nor for any wayfaring man; but such wayfaring man's mortuary shall be paid in the parish to which he belongs. And upon this statute stands the law of mortuaries to this day.

MORTY, a pleasant island of the Eastern Seas, in long. 128° 23′ E., and lat. 2° 15′ N., separated from the north-east part of the island of Gilolo by a channel about twenty-five miles wide, called the Strait of Morty. It is said to abound in sago trees; and is sixty-five miles long by about seventeen broad.

MORVEAU Guyton (L. Bernard), one of the most celebrated of modern chemists, was the son of a lawyer of Dijon, and born in 1737. He became advocate-general in the parliament of Dijon, and attorney-general of the Cote d'Or: previously to the French Revolution he also distinguished himself by the study of chemistry and natural philosophy. In 1777 he discovered a lead mine in the province of Burgundy. Guyton Morveau was a contributor of articles on chemistry to the Encyclopedie Methodique; and had a share in the researches which led to the foundation of the antiphlogistic theory of chemistry; was one of the authors of the reformed chemical nomenclature, &c. He relinquished

his office of advocate-general, after having published his pleadings at the bar. At the commencement of the Revolution (September 1791) he became a deputy for the department of Côte d'Or, and was afterwards a member of the convention. He was a violent republican at this time, and voted for the death of the unhappy Louis XVI. Buonaparte decorated him with the insignia of the legion of honor, and he was one of the first members of the Institute. He left Elémens de Chimie, Dijon, 1777, 3 vols. 12mo. Digressions Academiques, &c., 12mo.; and various memoirs in the Annales de Chimie. He died 21st December, 1815.

MORUNG, a woody district of north Hindostan, tributary to Nepaul. It is situated in about the 27° of lat. and is very mountainous, some parts being 7000 feet higher than Bengal. The timber is sometimes floated down the river Cosa; but it is extremely unhealthy and little known.

MORUS, the mulberry-tree, a genus of the tetandria order, and monœcia class of plants; natural order fifty-third, scabridæ: MALE CAL. quadripartite; COR. none: FEMALE CAL. tetraphyllous; COR. none; styles two; calyx becoming a berry with one seed. There are seven principal species:—

1. M. alba, the white mulberry-tree, rises with an upright trunk, branching twenty or thirty feet high; garnished with large, oblique, heart-shaped, smooth, light-green, shining leaves, and monœcious flowers, succeeded by pale-whitish fruit. There is a variety with purplish fruit. The leaves of the mulberry-tree afford the principal food of that valuable insect the silk-worm. The leaves of the alba are preferred for this purpose in Europe; but in China, where the best silk is made, the worms are said to be fed with those of the morus tartarica. The advantage of white mulberry-trees is not confined to the nourishment of worms: they may be cut every three or four years like sallows and poplar trees to make faggots; and the sheep eat their leaves in winter before they are burnt. This kind of food, of which they are extremely fond, is very nourishing; it gives a delicacy to the flesh, and a fineness and beauty to the wool. In short in every climate, and in most fields, it might be proper, as is the case in Spain, to wait for the first hoarfrost shaking off the leaves, which are gathered and placed to dry in sheds or cart-houses, taking care always to stir them from time to time. In Spain the sheep are fed on these leaves during the cold and frosts. By this method no injury is done to the mulberries, which produce leaves every year: and it is thought that the beauty and fineness of the Spanish wool is in a great measure owing to the use of this kind of food. From these considerations M. Bourgeois infers, that even in countries where, from the nature of the climate, the scarcity of workmen and the high price of labor, or any other particular causes, silk-worms could not be raised to any advantage, the cultivation of mulberry-trees ought not to be neglected. The fruit of the white mulberry has a sweetish and very insipid taste. Birds, however, are very fond of it.

2. M. Indica, the Indian mulberry, has ovate oblong leaves, equal on both sides, but unequally serrated.

3. M. nigra, the common black-fruited mulberry-tree, rises with an upright large rough trunk, dividing into a branchy and very spreading head, rising twenty feet high or more. It has large heart-shaped rough leaves, and monœcious flowers, succeeded in the females by large succulent blackberries. There is a variety with jagged leaves and smaller fruit. Considered as fruit-trees, this species is the only proper sort to cultivate here; the trees being not only the most plentiful bearers, but the fruit being larger and much finer flavored than that of the alba, which is the only other sort that bears in this country. It is exceedingly grateful to the taste, and is at the same time laxative and cooling. Like the other acid sweet fruits, it allays thirst (as Dr. Cullen observes), partly by refrigerating, and partly by exciting an excretion of mucus from the mouth and fauces; a similar effect is also produced in the stomach, where, by correcting putrescency, a powerful cause of thirst is removed. A syrup is made from the berries, gathered before they are ripe, which, taken as a gargle, is excellent for allaying inflammations of the throat, and for cleansing ulcers in the mouth. The bark of the root, which has an acid bitter taste, possesses a cathartic power, and has been successfully used as a vermifuge, particularly in cases of tænia; the dose is half a drachm of the powder, or a drachm of the fusion. The juice of the fruit is also employed to give a color to certain liquors and confections. Some make from it an agreeable wine; others employ it for giving a high color to red wine, which it likewise contributes to make sweet. Although this juice is not used in dyeing, it gives a red color to the fingers and to linen, which is very difficult to remove. Verjuice, sorrel, lemon, and green mulberries, remove spots of this kind from the hands; but, with respect to linen, the best way is to wet the part which has been stained, and to dry it with the vapor of sulphur; the vitriolic acid which escapes from this substance during combustion instantly takes off the stain. The wood is yellow, tolerably hard, and may be applied to various uses in turnery and carving: but to separate the bark, which is rough, thick, thready, and fit for being made into ropes, it is proper to steep the wood in water.

4. M. papyrifera, the paper mulberry-tree of Japan, grows twenty or thirty feet high, having large palmated leaves, some trilobate, others quinquelobed; and monœcious flowers, succeeded by small black fruit. This species has its name from the paper used by the Japanese, being chiefly made of the bark of its branches. See PAPER. The leaves also serve for food to the silk-worm, and it is cultivated with success in France. It thrives best in sandy soils, grows faster than the common mulberry, and at the same time is not injured by the cold. M. de la Bouviere affirms that he procured a beautiful vegetable silk from the bark of the young branches of this species, which he cut while the tree was in sap, and afterwards beat and steeped. The women of Louisiana procure the same from the shoots which issue from the stock of the mul-

berry, and which are four or five feet high. After taking off the bark they dry it in the sun, and then beat it, that the external part may fall off; and the internal part, which is fine bark, remains entire. This is again beaten to make it still finer; after which they bleach it with dew. It is then spun, and various fabrics are made from it, such as nets and fringes: they even sometimes weave it and make it into cloth. The finest sort of cloth among the inhabitants of Otaheite, and others of the South Sea Islands, is made of the bark of this tree. See BARK.

5. M. rubra, the red Virginia mulberry tree, grows thirty feet high, is garnished with very large, heart-shaped, rough leaves, hairy underneath, and has monœcious flowers, succeeded by large reddish berries. This and the last species, as well as the alba, are here chiefly employed to form variety in our ornamental plantations, though abroad they are adapted to much more useful purposes.

6. M. tinctoria, dyer's mulberry, or fustic, has oblong leaves more extended on one side at the base, with axillary thorns. It is a native of Brasil and Jamaica. This is a fine timber tree, and a principal ingredient in most of our yellow dyes, for which it is chiefly imported into Europe. The berries are sweet and wholesome, but not much used, except by the winged tribe, by whose care it is chiefly planted. This and the last species, and the Indica, are tender plants in this country; but the other four are hardy, and succeed in any common soil and situation. The leaves are generally late before they come out, the buds seldom beginning to open till the middle, or towards the end of May, according to the season; and, when these trees begin to expand their foliage, it is a good sign of fine warm settled weather; the white mulberry, however, is generally forwarder in leafing than the black. The flowers and fruit come out soon after the leaves; the males in amentums, and the females in small roundish heads; neither of which are very conspicuous, nor possess any beauty but for observation. The female or fruitful flowers always rise on the extremity of the young shoots, or short spurs; and with this singularity, that the calyxes of the flowers become the fruit, which is of the berry kind, and composed of many tuberances, each of them furnishing one seed. The fruit matures here gradually from about the 15th August to the 15th September. In dry warm seasons they ripen in great perfection; but in very wet weather they ripen indifferently, and prove devoid of flavor.

MORWARA, a town of Hindostan, in the province of Gujerat, governed by an Hindoo chief of the Rajpoot tribe: the surrounding country is often plundered by the Coolies. It is situated thirty miles S. S. W. from Theraud.

MOSA'IC, *adj.* Fr. *mosaique.* Supposed to be corrupted from Lat. *musæus,* or Greek μουσικος.

Mosaick is a kind of painting in small pebbles, cockles, and shells, of sundry colours; and of late days likewise with pieces of glass figured at pleasure; an ornament, in truth, of much beauty, and long life, but of most use in pavements and floorings.
Wotton.

Each beauteous flower,
Iris all hues, roses, and jessamin,
Reared high their flourished heads between, and wrought
Mosaick. *Milton's Paradise Lost.*

The most remarkable remnant of it is a very beautiful *mosaick* pavement, the finest I have ever seen in marble; the parts are so well joined together, that the whole piece looks like a continued picture.
Addison on Italy.

MOSAIC WORK is an assemblage of pieces of glass, marble, precious stones, &c., of various colors, cut square, and cemented on a ground of stucco, in such a manner as to imitate the colors and gradations of painting. Critics are divided as to the origin and reason of the name. Some derive it from Mosaicum, a corruption of musaicum, as that is of musivum, as it was called among the Romans. Scaliger derives it from the Greek μεσα, and imagines the name was given to this sort of work as being very fine and ingenious. Nebricensis is of opinion it was so called because 'ex illis picturis ornabantur musea.'

MOSAIC WORK IN GLASS.—In a very amusing work of the celebrated Göthe, entitled Winkelmann und sein Jahrhundert, it is stated that about 15,000 varieties of color are employed by the workers in mosaic in Rome, and that there are fifty shades of each of these varieties, from the deepest to the palest, thus affording 750,000 tints, which the artist can distinguish with the greatest facility. We should imagine, with the command of 750,000 tints of color, that the most varied and beautiful painting might be perfectly imitated; yet this is not the case, for the mosaic workers find a want of tints even amidst this astonishing variety.

The enamel, consisting of glass mixed with metallic coloring matter, is heated at the manufactory for eight days in a furnace, each color in a separate pot. The melted enamel is taken out with an iron spoon, and poured on a polished marble placed horizontally; and another flat marble slab is laid upon the surface of the melted enamel, so that the enamel cools into the form of a round cake, of the thickness of three-tenths of an English inch.

In order to divide the cake into smaller pieces, the cake is placed on a sharp steel anvil, called Tagliulo, which has the edge uppermost, and a stroke of an edged hammer is given on the upper surface of the cake; the cake is thus divided into long parallelopipeds, or prisms, whose base is three-tenths of an inch square; and these parallelopipeds are again divided across their length by the tagliulo and hammer into pieces of the length of eight-tenths of an inch, to be used in the mosaic pictures. The cakes are sometimes made thicker, and the pieces larger.

For smaller pictures, the enamel, whilst fused, is drawn into long parallelopipeds, or quadrangular sticks; and these are divided across by the tagliulo and hammer, or by a file; sometimes also these pieces are divided by a copper blade and emery; and the pieces are sometimes polished on a horizontal wheel of lead with emery.

Gilded mosaic is formed by applying the gold leaf on the hot surface of a brown enamel, immediately after the enamel is taken from the fur-

nace; the whole is put into the furnace again for a short time, and when it is taken out the gold is firmly fixed on the surface. In the gilded enamel used in mosaic at Rome there is a thin coat of transparent glass over the gold.

To apply these several pieces, and out of them to form a picture, first procure a cartoon or design to be drawn; this is transferred to the ground or plaster by calking, as in painting in fresco. See Fresco. As this plaster is to be laid thick on the wall, and therefore will continue fresh and soft a considerable time, so there may be enough prepared at once to serve for as much work as will take up three or four days. This plaster is composed of lime made of hard stone, with brick-dust very fine, gum tragacanth, and whites of eggs: when this plaster has been thus prepared and laid on the wall, and made the design of what is to be represented, they take out the small pieces of glass with a pair of plyers, and range them one after another, still keeping strictly to the light, shadow, different teints, and colors, represented in the design before; pressing or flatting them down with a ruler, which serves both to sink them within the ground and to render the surface even. Thus, in a long time, and with a great deal of labor, they finish the work, which is the more beautiful in proportion as the pieces of glass are more uniform, and ranged at an even height. Some of these pieces of mosaic work are performed with that exactness, that they appear as smooth as a table of marble, and as finished as a painting in fresco; with this advantage, that they have a fine lustre, and will last for ages. The best works of this kind that have remained till our time, and by which the moderns have retrieved the art, which was in a manner lost, are those in the church of St. Agnes, formerly the temple of Bacchus, at Rome; and some in Pisa, Florence, and other cities of Italy. The most esteemed among the works of the moderns are those of Joseph Pine and the chevalier Lanfranc, in the church of St. Peter at Rome: there are also very good ones at Venice.

Mosaic Work of Marble.—The ground of mosaic works, wholly marble, is usually a massive marble, either white or black. On this ground the design is cut with a chisel, after it has been first calked. After it has been cut of the depth of an inch or more, the cavities are filled up with marble of a proper color, first fashioned according to the design, and reduced to the thickness of the indentures with various instruments. To make the piece thus inserted into the indentures hold fast, whose several colors are to imitate those of the design, they use a stucco composed of lime and marble dust; or a kind of mastic which is prepared by each workman after a manner peculiar to himself. The figures being marked out the painter or sculptor draws with a pencil the colors of the figures not determined by the ground, and in the same manner makes strokes or hatchings in the place where shadows are to be: and, after he has engraven with the chisel all the strokes thus drawn, he fills them up with a black mastic, composed partly of Burgundy pitch poured on hot; taking off afterwards what is superfluous with a piece of soft stone or brick, which, together with water and beaten cement, takes away the mastic, polishes the marble, and renders the whole so even that one would imagine it only consisted of one piece. This kind of mosaic work is used in large works, as the pavements of churches, basilics, and palaces, and in the veneering of their walls. It is seen in the fine church of the invalids at Paris, and the fine chapel at Versailles.

Mosaic Work of Precious Stones.—For this purpose, other and finer instruments are required than those used in marble; as drills, wheels, &c., used by lapidaries and engravers on stone. As none but the richest marbles and stones enter this work, to economise them they are sawn into the thinnest leaves imaginable, scarcely exceeding half a line in thickness: the block to be sawn is fastened firmly with cords on the bench, and only raised a little on a piece of wood, one or two inches high. Two iron pins which are on one side the block, and which serve to fasten it, are put into a vice contrived for the purpose; and with a kind of saw or bow made of fine brass wire, bent on a piece of spongy wood, together with emery steeped in water, the leaf is gradually fashioned by following the stroke of the design, made on paper and glued on the piece. When there are pieces enough fastened to form an entire flower, or some other part of the design, they are applied to the ground. The ground which supports this mosaic work is usually of free stone. The matter with which the stones are joined together is a mastic, or kind of stucco, laid very thin on the leaves as they are fashioned; and, this being done, the leaves are applied with plyers. If any contour, or side of a leaf, be not either squared or rounded sufficiently, so as to fit the place exactly into which it is to be inserted, when it is too large, it is to be brought down with a brass file or rasp; and, if it be too small, it is managed with a drill and other instruments used by lapidaries. This kind of mosaic work is only used in small works, as ornaments for altar-pieces, tables for rich cabinets, precious stones being so very expensive.

Mosaic Work of the Feathers of Birds, &c.—In Clavigero's History of Mexico is described a curious kind of mosaic work made by the ancient Mexicans of the most delicate and beautiful feathers of birds. They raised for this purpose various species of birds of fine plumage with which that country abounds, not only in the palaces of the king, where there were all sorts of animals, but likewise in private houses; and at certain seasons they carried off their feathers to make use of them in this kind of work, or to sell them at market. They set a high value on the feathers of those birds which they call huitzitzilin, and the Spaniards picafloros, on account of the smallness, the fineness, and the various colors of their plumage. In these and other beautiful birds, nature supplied them with all the colors which art can produce, and also some which art cannot imitate. At the undertaking of every mosaic work several artists assembled. After having agreed upon a design, and taken their measures and proportions, each artist charged himself with the execution of a certain part of the image, and exerted himself to it with such

patience and application, that he frequently spent a whole day in adjusting a feather; first trying one, then another, viewing it sometimes one way, then another, until he found one which gave his part that ideal perfection proposed to be attained. When the part which each artist undertook was finished, they assembled again to collate the entire image. If any part was accidentally deranged, it was wrought again until it was perfectly finished. They laid hold of the feathers with small pincers, that they might not injure them, and pasted them on the cloth with tzauhtli, or some other glutinous matter; they then united all the parts upon a little table, or a plate of copper, and flattened them softly, until they left the surface of the image so equal and smooth that it appeared to be the work of a pencil. These were the images so much celebrated by the Spaniards and other European nations. 'These images,' says Acosta, 'are deservedly admired; for it is wonderful how it was possible, with the feathers of birds, to execute works so fine and so equal, that they appear the performance of the pencil; and what neither the pencil nor the colors in painting can effect, they have, when viewed from a side, a most beautiful appearance, so lively and animated. Some Indians, who are able artists, copy whatever is painted with a pencil so perfectly with plumage, that they rival the best painters of Spain.' Cortes, Bernal Diaz, Gomara, Torquemada, and all the other historians who saw them, were at a loss for expressions sufficient to praise their perfection. Several works of this kind, our author says, are still preserved in the museums of Europe, and many in Mexico; but few, he apprehends, belong to the sixteenth century, and still fewer, if any, are of those made before the conquest. The mosaic works also which the Mexicans made of broken shells were extremely curious: this art is still practised in Guatimala.

MOSAMBIQUE, a city and sea-port, the principal settlement of the Portuguese on the east coast of Africa, stands on an island of the same name, which, with several others, forms the best harbour on this coast, the depth being four fathoms and a half at low water. The country round is low, with groves of cocoa-nut trees. Fresh water is scarce, there being but two wells not brackish, one on the island and the other on the main; provisions are also dear, the settlement chiefly depending on Madagascar. 10,000 slaves were annually exported from hence to a late period, and chiefly to Portuguese America, besides ivory, gold dust, columbo root, ambergris, amber, and cowries. A considerable contraband trade is also carried on by the English, though foreigners are prohibited trading.

The town is well fortified, and as usual in Portuguese colonies has a great number of churches and convents. About a musquet shot from the anchorage is the landing place, rendered very commodious by a pier built on arches, with steps on each side. The town is reckoned by Mr. Salt to contain 500 Portuguese, 800 persons of Arabian extraction, and 1500 negroes. The government house he describes as handsome, but the settlement on the whole has few traces of its early importance. The octagonal fort, indeed, is strongly built, with six bastions, and defended by eighty pieces of cannon. These, however, are totally neglected, and the garrison consists merely of a few sentries, and some confined felons. Its state of defence was such, when the traveller just named was there, that an Arabian trader assured him that, with 100 stout Arabians, he would undertake to drive the Portuguese out of this boasted capital of their empire. It is, however, sufficiently strong to resist the Madagascar pirates.

The economy of the government-house retains remnants of its former splendor. Tea is set out in a service of pure gold in the evening, when the house is thrown open to all the principal inhabitants, who may then visit it, and are entertained with that beverage. The governor wears a very costly golden chain; and the negro attendants are almost bent beneath profuse ornaments of that metal. The governor and principal citizens have country houses at Mesuril, on the peninsula of Caboceiro, at the head of the bay. Beyond this the Portuguese have no settled dominion. Several chiefs, indeed, receive from them a formal investiture, and pay them a trifling tribute; among the principal of whom are the sheiks of Quintangone, St. Cul, and the queen of Sereima; the first of whom can bring 4000 or 5000 men into the field, the second 3000, and the third 1500. The former sheik of Quintangone being long at enmity with them, and having been accidentally taken prisoner, was fired from the mouth of a cannon, the memory of which has secured, it is said, the allegiance of his successor. These alliances, however, scarcely enable the government to make head against the Makooa; a powerful race, who sometimes extend their ravages to the peninsula of Caboceiro.

In his first voyage to India Vasco de Gama touched here, and found a large trading city. He was at first well received, but a plot was soon laid to destroy him and his followers, and he judged himself fortunate in being able to escape. In 1508 the Portuguese obtained permission to erect a fort and factory at Mosambique, by means of which they soon expelled the Arabs. Its vicinity to the gold mines, and its convenience as a station of refreshment to Indian ships, soon placed it at the head of their East African empire. This at one time was estimated at 2000 miles of coast, including the large and populous trading places of Sofala, Mosambique, Quiloa, Mombaça, and Melinda. Most of these have been successively wrested from them, and their dominion is now bounded by Cape Delgado on the north, and Cape Corrientes on the south, including no place of importance except Mosambique and Sofala.

Moschatel. See Adoxa.

MOSCHION, a name common to four different authors, whose compositions, characters, and native places, are unknown. Some fragments of their writings remain, some few verses, and a treatise, De Mulierum Affectibus.

MOSCHUS, a Grecian poet of antiquity, usually coupled with Bion. They were both contemporaries with Theocritus. In the time of the latter Grecians, all the ancient Idylliums were

collected and attributed to Theocritus; but the claims of Moschus and Bion have been admitted to some few minor pieces. All that is known about them is collected from their own remains. Moschus, by his elegy on Bion, has given the best memorials of Bion's life. Moschus and Theocritus have by some critics been supposed the same person; others will have Moschus as well as Bion to have lived later than Theocritus, upon the authority of Suidas: while others again suppose him to have been the scholar of Bion, and probably his successor in governing the poetic school; which, from the elegy of Moschus, does not seem improbable. Their remains are to be found in all the editions of the Poetæ Minores Græci.

Moschus, in zoology, a genus of quadrupeds of the order of pecora, having no horns. There are eight small cutting teeth in the lower jaw; in the upper, no cutting or fore teeth; but two long tusks, one on each side, projecting out of the mouth.

1. M. Americanus, or the Brasilian musk, is of a reddish-brown color, with a black muzzle and white throat, and scarcely so large as a roebuck. The fur is soft and short; the color of the head and upper part of the neck is dark brown; the lower part of the neck and throat are white; the body and limbs are reddish-brown; the hind legs are longer than the fore. These animals, which inhabit Guiana and Brasil, are exceedingly timid, active, and swift. Numbers are often seen swimming in the rivers, and are then easily taken. The Indians hunt them, and their flesh is esteemed very delicate. The French of Guiana call them biches or does, because, notwithstanding their likeness to deer, both sexes are without horns.

2. M. Javanicus, the Javan musk, is of a ferruginous color on the upper parts of the body, and white all along the under; the tail is long and hairy, white below and at the tip; its legs are similar to those of the pigmy musk, and furnished with very small spurious hoofs. This and the meminna seem only varieties of the pigmæus.

3. M. Indicus, the Indian musk, has short hair of a tawny color on the upper, and whitish on the under, parts of the body; the tail is short, and the feet have spurious hoofs. They inhabit India; and are much of the same size with the moschiferus, but the tail is longer and more perceptible; the legs are very slender; and the head resembles that of a horse, with erect oblong ears.

4. M. meminna, or the Ceylon chevrotin, is seventeen inches long from the nose to the rump, and of a cinereous olive color; the throat, breast, and belly, are white; the sides and haunches spotted, and barred transversely with white; and the ears are large and open: the tail is very short; and the feet have no spurious hoofs. They inhabit Ceylon and Java.

5. M. moschiferus, the Thibet musk, has a bag or tumor on the belly, near the navel, and a very short tail almost hid in the fur. The length of the male is about three feet three inches from the nose to the origin of the tail, and about two feet three inches high at the shoulder; the female is less than the male, has a sharper nose, has no tusks nor musk-bag, and is provided with two teats. The head resembles that of the roe: the fur is coarse, like that of the animals of the deer kind; but softer, very smooth, erect, plentiful, thick, and long: the color varies according to the age of the animal and time of the year; but is chiefly blackish-brown on the upper, and hoary, seldom white on the under parts of the body; the hoofs are long, black, and much divided, and the spurious hoofs of the fore-feet are very long. They inhabit the Asiatic Alps, especially the highest rocky mountains from the Altaic chain to that which divides Thibet from India; likewise in China and Tonquin, and in eastern Siberia; and about lake Baikal, and the rivers Jenisea and Argun. They avoid mankind, dwelling solitarily in the most precipitous places of the mountains, among rocks in the small narrow valleys surrounded by those snowy hills, and the pine forests which grow in their interstices. They are very gentle and timid animals, except in rutting time, when the males fight violently with their tusks for the females; they are exceedingly active in leaping, running, climbing, and swimming, and very difficultly tamed; the flesh is eatable, and that of the younger animals delicate. The chace of them is a trade equally difficult and hazardous; if pursued, they seek the highest tops of the snowy peaks, inaccessible to men or dogs. They take amazing leaps over the tremendous chasms of their Alps, and from rock to rock; treading so lightly on the snow, with their true and false hoofs extended, as scarcely to leave a mark; while the dogs which pursue them sink in, and are forced to desist from the chace. They are so fond of liberty as never to live long in captivity. They are mostly taken in snares, or shot by cross-bows placed in their tracks, with a string from the trigger for them to tread on and discharge. The Tungusi shoot them with bows and arrows. The skins are used for bonnets and winter dresses. The Russians often scrape off the hair, and have a way of preparing them for summer clothing, so as to become as soft and shining as silk. The noted drug, the musk, is produced from the male. The bag or follicle that contains it is situated near the prepuce; and is of a somewhat oval figure, flat on one side and rounded on the other, having a small open orifice. In young animals this bag is empty; but in adults it is filled with a clotted, oily, friable matter, of a dark brown color: this is the true musk, of which each bag contains from a dram and a half to two drams. The best comes from Thibet; that which is produced in Siberia having somewhat of the flavor of castor.

6. M. pigmæus, the pigmy musk, is marked as to color like the Indicus, but has no spurious hoofs. The body and head measure only nine inches and a half in length; the tail is about an inch long; and the legs are smaller than a man's finger. They inhabit the East Indies and several Indian islands; and are called kant chel by the Malayes, and poet-jang by the inhabitants of Java. The natives catch them in great numbers, carry them in cages to market, and sell them for 2½*d.* a-piece. See Musk.

MOSCOW, an important government of European Russia, situated between 35° 10′ and 38° 40′ of E. long. and 54° 40′ and 56° 30′ of N. lat., is surrounded by the governments of Tver, Wladimir, Riazan, Tula, Kaluga, and Smolensko. Its area is about 10,000 square miles, and its population 1,126,000; or that of one of the most thickly peopled provinces of the Russian empire. It largely imports corn, owing to the consumption of the capital, and to the extent to which the country is laid out in orchards, gardens, and hop-grounds. Rearing of horses is a favorite object here. Most of the houses throughout the province are of wood, but some are of stone, and the working of the quarries affords a considerable employment. The trade and manufactures are chiefly confined to the capital. This province contains a number of small rivers and streams. The largest are the Oka, Moskva, and Kliasma, which are all navigable. It is divided into thirteen districts or circles.

Moscow, or Moskva, an immense city of European Russia, long the seat of the government, and still the capital of the whole interior of the empire, is of an oval form, having its length from north to south, its breadth from east to west. Its extent, exclusive of the suburbs, is three miles by two and a half; but with the suburbs it is above five miles by four, having a circumference of more than twenty miles, or about equal to the circuit of London, Southwark, and Westminster collectively. This space is however occupied greatly by spacious courts, gardens, and other open areas. The houses of the lower orders are of one story only, and the streets are wide. The river Moskva or Mousqua, flowing with a serpentine course from west to east, receives, towards the middle of the town, a rivulet called the Neglina, and soon after the Jausa. Both of these flow in from the north. Of the buildings, by far the greatest part are to the north of the Moskva.

Dr. Clarke thus describes it, as it appeared before the catastrophe of 1812: 'Moscow is in every thing extraordinary; as well in disappointing expectation as in surpassing it; in causing wonder and derision, pleasure and regret. Numerous spires glittering with gold, amidst burnished domes, and painted palaces, appear in the midst of an open plain, several versts before you reach the city. One might imagine all the states of Europe and Asia had sent a building by way of representative to Moscow: and, under this impression, the eye is presented with deputies from all countries holding congress; timber huts from regions beyond the Arctic; plastered places from Sweden and Denmark, not white-washed since their arrival; painted walls from the Tyrol; mosques from Constantinople; Tartar temples from Bucharia; pagodas, pavilions, and virandas from China; cabarets from Spain; dungeons, prisons, and public offices from France; architectural ruins from Rome; terraces and trellises from Naples; and warehouses from Wapping. Having heard accounts of its immense population, you wander through deserted streets. Passing suddenly towards the quarter where the shops are situated, you might walk upon the heads of thousands. The daily throng is there so immense, that, unable to force a passage through it, or assign any motive that might convene such a multitude, you ask the cause; and are told that it is always the same. Nor is the costume less various than the aspect of the buildings; Greeks, Turks, Tartars, Cossacks, Chinese, Muscovites, English, French, Italians, Poles, Germans, all parade in the habits of their respective countries. Taken altogether,' continues our lively traveller, 'it is a jumble of magnificence and ruin; old buildings repaired, and modern structures not completed; half-open vaults, and mouldering walls, and empty caves, amidst white-washed brick-buildings, and towers and churches with glittering gilded, or painted domes. In the midst of it some devotees are daily seen entering a little mean structure, more like a stable than a church. This, they tell you, is the first place of Christian worship erected in Moscow. It was originally constructed of the trunks of trees, felled upon the spot, at the foundation of the city; but now it is of brick, built in imitation of the original wooden church. Its claims to antiquity cannot be great, as, according to accounts published in our own country, the whole city of Moscow was burned by the Tartars of the Crimea, on the 24th of May, 1571: the old wooden church was probably then destroyed. There is nothing within the structure worthy of notice. The view of Moscow from the terrace in the Kremlin, near the spot where the artillery is preserved, would afford a fine subject for a panorama. The number of magnificent buildings, the domes, the towers, and spires, filling all the prospect, make it, perhaps, the most novel and interesting sight in Europe. All the wretched hovels and miserable wooden buildings, which appear in passing through the streets, are lost in the vast assemblage of magnificent edifices: among these the Foundling Hospital is particularly conspicuous. Below the walls of the Kremlin, the Moskva, already become a river of importance, is seen flowing towards the Volga. The new promenade forming on its banks, immediately beneath the fortress, is a superb work, and promises to rival the famous quay at St. Petersburgh. It is paved with large flags, and is continued from the stone bridge to another, peculiarly called the Moskva Bridge, fenced with a light, but strong iron palisade, and stone pillars, executed in very good taste. A flight of stairs leads from this walk to the river, where the ceremony of the benediction of the water takes place. Another flight of wooden steps leads through the walls of the Kremlin, to an area within the fortress.'

Another English traveller, Mr. James, who visited Moscow in June 1814, thus describes the coup d'œil of the city from the Petrovsky Palace: 'It was from the road, as it passes under the turrets of the Petrovsky Palace,' says he, 'that we first beheld the thousands of domes and steeples that yet glittered among the relics of Moscow; and a short hour brought us to the barriers. At our first entrance, only a few occasional symptoms of the conflagration (of 1812) occurred, and little that was of a nature to correspond to the gloomy appearance which we had

been led to expect. But, as we advanced, the quarters of the Slabode, or fauxbourg, where wood had chiefly been used in building, exhibited destruction in its fullest extent,—for the most part, a campagne rasée. Now and then, the shell of a house was seen standing in a blank space; or here and there a few brick stoves, yet remaining, pointed out the spot where a dwelling once had been. Moving onwards, we crossed the avenues of the boulevards: the trees were in full leaf and beauty, seeming to vary the view only to heighten its melancholy aspect. Leaving this, we passed to the central parts of the town, that were constructed with more durable materials, exhibiting occasionally a richness and elegance of exterior that must have equalled, if not surpassed, the architectural magnificence of the most beautiful towns of Europe. But all was now in the same forlorn condition; street after street greeted the eye with perpetual ruin; disjointed columns, mutilated porticos, broken cupolas, walls of rugged stucco, black, discolored with the stains of fire, and open on every side to the sky, formed a hideous contrast to the glowing pictures which travellers had drawn of the grand and sumptuous palaces of Moscow. The cross lanes looked, even at this interval, as if unused to the sound of the human tread. The grass had sprung up amidst the mouldering fragments scattered over the pavements; while a low smoke, issuing perhaps from some obscure cellar corner, gave the only indications of human habitation, and seemed to make desolation visible.

'There are few towns whose quarters present a more simple plan of distribution. The ancient Kremlin and Kitaigorod are situated on a central eminence above the river Moskva; and around these, as a nucleus, the circles of the Beliogorod, the Semlianogorod, and the Slabode or fauxbourg, are severally discernible, marking by their lines the growth of the place in successive eras. The Kitaigorod, or Tatartown, besides some religious buildings, contains within its walls the public exchange and the chief houses of trade. All these had been completely gutted by the fire, but the spirit of the place still remained: shops and stalls, and tents of every denomination, were erected amidst the ruins; and the chief street was even now the theatre of much bustle and activity. The Kremlin is a large walled circle, containing many old churches, as well as the public offices and apartments of state; and hither we made a daily visit, as to a point that afforded the only specimen of the ancient magnificence of the capital of the grand dukes and the czars. It stood uninjured amidst the flames of the late conflagration; but the barbarous fury of Buonaparte attacked whatever Russian piety had spared; and, with unutterable malignity, he marked out for devastation some of the fairest portions of this proud citadel. The most peremptory command was given to the detachment occupying the Kremlin, after his departure, to discharge their orders with despatch; the mines were prepared, and at two o'clock on the last night of their stay this horrid purpose was carried into execution. By the first two explosions, part of the walls and one of the towers towards the river were destroyed; by the third the church of St. Nicholas and the four great bells of Moscow were blown up with tremendous violence; at the same moment the lofty tower of Ivan Veliki, the first of the czars, was rent from the top to its base, and the cross of the cupola crowning its summit buried in ruin below. The fourth shock was by far the most dreadful; the walls of the arsenal, which were upwards of three yards in thickness, with a part of the gate of St. Nicholas, and several adjoining pinnacles, were at once blown into the air, a concussion succeeding, that shook the whole city to its foundations.

'A short time previously to the breaking out of the war, a ukase was issued by the emperor, ordering three and thirty churches at Moscow to be pulled down; by no means an unreasonable step, since the total number in the city and suburbs amounted to 2000, and many of them were in a dilapidated state. The common people, however, very generally entertained the idea, that their late calamities were owing to this act of impiety. The emperor has now vowed to erect a new church at Moscow, in commemoration of the deliverance of Russia, for which a design has been given by Mr. Wilbers, formerly a pupil of the academy at St. Petersburgh. A column, formed out of the cannon taken from the French, forms part of the design. The imperial palace, which stands on a point commanding the whole town, was the residence, as before stated, of Buonaparte. But even these walls, that had formed his abode, were given to destruction by his orders, and now showed themselves in the most forlorn condition, stripped of every article, and completely gutted from top to bottom. The same scene of waste was exhibited in an interesting antique edifice, containing the chamber of the throne. As the public hall of audience, at the coronation of the czars and emperors, it had been often made the scene of festivities in this most pompous and splendid court. But now not a vestige of ancient ornament could any where be traced; the activity of devastation had been great, and scarcely a beam or a stone rested one on the other. The other parts of the Kremlin remained untouched, and it was impossible to conceive a more imposing spectacle than was here afforded. A high terrace overhung the walls towards the river, at the extremity of which, to the left, appeared the fantastical structure of the Trinity Church, and the awe-commanding portals of the Holy Gate, through which every passenger walks bare-headed. At the other end was a cluster of domes rising from the church of St. Nicholas, that of the Assumption, and the chapel and palace of the czars, with the lofty temple of Ivan Veliki towering far above them all, and reflecting the beams of the sun from a globe of gold. The palace of the czars does not boast an antiquity of more than 200 years; but it is an edifice raised with princely costliness in the carved work with which that style abounds. This was one of the most showy examples of the gorgeous architecture of the Kremlin, though the whole circle offered an assemblage of bright, gay colors, and a display of gaud and richness that vied with the wealth of

Ormus and of Ind. The cupolas and roofs were gilt, or stained green or red, the walls and towers covered with glazed tiles of blue, and white, and yellow; in other parts adorned with storied paintings from Holy Writ; while a melange was seen on every side, of pear-shaped domes, Tartar battlements, Gothic tracery, Grecian columns, the star, the crescent, and the cross. Looking below, we beheld the stream of the Moskva, winding its course amidst the streets and houses of the town, all indeed now in ruin, but still interspersed with many a glittering steeple, with cottage, garden, and palace, intermixed, and offering to view the endless variety of a Russian city. This scene was backed by an extensive landscape on the west, dotted with country houses and monasteries, and surmounted by the long gloomy line of the Sparrow Hills, over which the French army first showed themselves, before the work of abomination was begun.'

Moscow consists of four divisions, circular or semicircular, each surrounding the other, and each increasing in circuit, in proportion to its distance from the centre. 1. The central, or court and mercantile quarter, containing the Kremlin and the Kitaigorod. 2. The Bielogorod, or White town, extending around the central part like a half moon, deriving its name from the white stone walls which surrounded it till 1767. 3. The Semliano-gorod, or Earthen town, much more extensive than either of the preceding, and surrounding them both. It derived its name from its former earthern ramparts. 4. The Slobodes, or suburbs, which, to the number of nearly thirty, surround the whole.

The Kremlin stands so high as to command a prospect over almost the whole city. The Moskva flows past it, and is crossed by two bridges. Here is the famous ancient palace of the czars, which so narrowly escaped the conflagration of 1812, and is now rebuilt with improvements. Here also is the church of St. Michael, containing the tombs of the czars, and the church of the Assumption of the Virgin Mary, in which the emperors are crowned. The Kremlin contains several other churches and monasteries with gilded cupolas.

The Kitaigorod, or Chinese town, is said to have derived its name from the trade it formerly carried on with China. Here are the bazaars and shops, as also the only street of this city in which the houses adjoin each other. Though of small extent, the Kitaigorod contains several public buildings; as, a strong brick edifice for the public archives; the printing-house of the synod; the university, founded in the middle of the eigthteenth century; and the Krasnaga Plotschael, or Beautiful Place, one of the most singular and most handsome squares in Europe. It is 1260 feet long, by 434 broad. Here also is the dead-fish market, a great curiosity. No sooner has the winter so far advanced that the sledge-roads are passable, than a large supply of fish is regularly brought from Archangel, and from a grea lake in the government of Novogorod. These are here piled up like walls, snow serving to fill the interstices. The sterlet, sturgeon, and beluga, or great sturgeon, are always in great supply. The more important shops, besides being locked at night, are all sealed up, a piece of cord or thread being twined round the padlock, and soft wax with an impression affixed over the ends or on the door. A Russian, according to Dr. Lyall, will much less readily break a seal than a lock.

The Bielogorod contains several of the widest streets of Moscow; the arsenal and cannon foundry; the foundling hospital; bible society house; the fruit market, and provision market. No building erected since the calamity of 1812 excites more surprise in Moscow than the Exercise-house, erected here in 1817. This enormous edifice is 560 feet in length, the breadth at each end is 168 feet, and the height from forty-two to forty-three and a half feet. The mechanical construction of the roof is admirable; although of such length, breadth, and weight of materials, it rests merely on the walls. A considerable part of this quarter escaped the great conflagration.

The Semliano-gorod has also wide streets, and contains, from its magnitude, a large proportion of the population. The most singular edifice here is the Vinnoi Dvore, the depôt for votki, a spirituous liquor, occupying two large squares. 'In this great magazine are deposited the spirits, or votki, made at the distilleries belonging to the crown, or brought from the country by the distillers, and sold to the crown, according to special regulations. From this depôt all Moscow and its neighbourhood, that is, all the drinking-houses as well as private individuals, are supplied with votki in abundance. The buildings have enormously thick walls, and are all vaulted. In them and the court-yards are lodged thousands of barrels of the precious votki, the nectar of the Russian peasants, which is measured in strength by the hydrometer, and sold according to law. Good votki by no means deserves the reproach thrown upon it by some travellers. As sold in the kabaks and in the shops it is generally diluted and adulterated, and certainly is a fiery, slowly operating poison. It resembles Scotch whiskey. It is a kind of proof spirit, according to pharmaceutical phraseology. It is called brandy by the mistakes of travellers, and sometimes Russian brandy.'

The Slobodes, or suburbs, are mean, and look like so many detached villages, with the exception of one called the Nemetska Sloboda, or German suburb, which is inhabited by a number of foreign mechanics. Here is the monastery of Spaso Andronïëf, remarkable for its fine spire, which has a massy foundation, and consists of four stories. The first, which is very elevated, has a tower, surmounted on each side by a cross: through this is a high, elegant, arched entrance, with a fine iron gate, over which is an image of our Saviour, called the image not made with hands. The second story is adorned with columns of the Doric order; the other two stories, with Corinthian columns, and with arches for the bells. The spire terminates in a tapering pear-shaped head, with fluted sides, over a ball, and bearing a highly gilded cross.

The police of Moscow is on a very good military footing; all its agents wear a uniform. The city is divided into twenty-four districts, each

under a police court, with a major at its head: the armed force consists of dragoons, to which there are sometimes added Cossack patroles. In each of the courts in the twenty-four quarters is a high tower; and stationed sentinels, to give the alarm on the first discovery of a fire, a calamity of frequent occurrence here.

The churches and the treasury in the Kremlin were stript of their most precious ornaments in 1812, prior to the entry of the French: the persons belonging to the public establishments, such as the university, the seminary for the daughters of noblemen, and the foundling-hospital, were removed to Kasan, in the interior; and barks, loaded with corn, were sunk in the Moskva, to prevent their cargoes falling into the enemy's hands. The decisive battle of Borodino being fought on the 8th of September, about seventy miles from Moscow, the hospitals of the city were soon filled with wounded: many of whom perished afterwards in the flames. When the retreat of the Russian army became known, a general movement took place in Moscow; and the roads, in all other directions but that of the enemy's march, became covered with fugitives; those who remained saw at night the horizon illuminated to the westward, by their troops retiring before the French, and destroying the villages

When, on the 13th, the enemy drew near, the mass of the population of Moscow left their homes, and spread themselves over the country. Count Rostopchin, the governor, carefully concealing the project of destroying the city, sent a flag of truce to request the French to spare it. He then left the city, along with all the public officers; and the vanguard of the French, on entering it on the 14th, were surprised at the silence which prevailed. The prisons were thrown open, and none were left but the few that were unable to fly, and those who remained for plunder, or to execute the orders of the governor. About five o'clock on Monday evening, the advanced guard of the French, under Murat, arrived, and immediate possession was taken of the Kremlin. Before night, Buonaparte arrived at the gate of Smolensko, where he actually waited for some time, expecting a deputation from the municipality, as he had been wont whenever he entered any captured town; but none came. On sending to enquire the reason, he was told, Moscow was deserted. He sent one of his generals to make further search and enquiries. Not a Russian was to be seen; not the least smoke rose from a single chimney; not the slightest noise issued from this immense and populous city: its 300,000 inhabitants seemed to be struck dumb and motionless by enchantment; it was the silence of the desert.

In the course of the ensuing night, Mortier pointed out to him smoke issuing from houses closely shut up, untouched and uninjured without. Flames shortly afterwards were seen in other quarters. On Tuesday evening they assumed a very serious aspect, and all efforts to stop them were in vain. The city appeared on fire in so many quarters, that the troops employed to stop the conflagration were distracted; and, while thus employed, they were surrounded and in great and immediate danger. Doubts had at first been entertained, whether the conflagration was accidental or not; but now it was certainly known to be intentional. The wind, indeed, blowing strong, first from one quarter, and then from another, favored the designs of the incendiaries: and it was not until Saturday morning that it fell; when the smoke gradually cleared off, and the extent of the desolation became visible.

At first the conflagration was represented throughout Europe as the work of the French; but, from the authorities quoted by Dr. Lyall, it appears to have been undoubtedly a plan premeditated by the Russian governor Rostopchin. His object was to render Moscow totally unfit for the winter quarters of the enemy; and in this he succeeded completely. At the same time it is to be added that the French, before their departure, sprang many mines, and thus added to the destruction of a fine city they could not retain. 'From all accounts,' says Dr. Lyall, 'we shall probably be very near the truth in concluding, that 7000 numeros, or courts, were destroyed in 1812; and that these numeros contained 7000 principal edifices, and at least 14,000 structures, making a grand sum total of 21,000 buildings.' The destruction of the Semlianogorod was so general, that, in a circuit of fifteen versts, not more than fifty habitable houses remained. The destruction of the Beliogorod was not quite so general. The Kitaigorod was burning six days without intermission. In the Kremlin, the new imperial palace alone became the prey of the flames. None of the hospitals suffered; but all the public education establishments, except one, fell a prey to the flames.

This review of the memorable attempt of the French emperor to combat with nature, or rather nature's God, as well as man, was necessary to explain the late and present situation of this city. Within a few months after the French left Moscow, orders were given to clear away the rubbish, and begin the rebuilding of the city. Thousands of workmen were employed in every street and lane; and Moscow at present is said to present no traces of the dreadful calamity of 1812. It is rebuilt with considerable regard to consistency and taste, and no longer presents such numerous and strong contrasts of palaces and huts as it did before. The Kitaigorod, or quarter for the exchange and mercantile warehouses; the more extensive quarter of the Semlianogorod; and even the Slobodes, or suburbs, were all rebuilt before the close of 1818; and the population of Moscow was carried to nearly its former magnitude. The deficiency is in the mansions of the nobility; many of these have not been rebuilt, having been on a scale too large for the income of their owners. Before the conflagration, the total of the registered edifices was 9158; in 1819 the number rebuilt, added to those that had been preserved, was about 7000.

Though the public buildings in Moscow are of stone, the great majority of the dwellings, since the rebuilding, it is to be regretted are of wood. A market, held in a large open space in one of the suburbs, exhibits a curious variety of materials for house-building; they consist o.

trunks of trees, cut, shaped, and morticed into one another. The person who wants a dwelling repairs to the spot, explains the number of rooms he requires, examines the different timbers, which are regularly numbered, and bargains for what suits him. The whole is either paid for on the spot, and then taken away by the purchaser, or the seller may agree to transport and erect it. A dwelling is often thus bought, transported, raised, and inhabited, in the space of a week. The new city has still wider streets than the old, and greater uniformity in all its buildings; the Asiatic taste is, however, preserved in the churches; but those lately erected are distinguished by a more simple and regular architecture. The streets are paved partly with stone, partly, as in other Russian towns, with trunks of trees. The university having been rebuilt was opened on the 11th of November 1818, and the former course of study resumed.

The Kremlin was, in 1817, completely repaired and enlarged by a long lateral building: its ramparts are replaced by beautiful alleys. This is the great depôt of the curiosities of Moscow. It has the highest spire in the city, called the tower of Ivan, still amply replenished with bells, and which formerly contained the largest bell in the known world, the weight being above 200 tons. This fell to the ground in the last century, in consequence of the tower being burned, and is now considerably sunk in the earth, and fractured.

'Taken as a whole,' says Dr. Lyall, the Krelme, or Kremlin, 'is one of the most singular, beautiful, and magnificent objects I have ever beheld. Its commanding situation on the banks of the Moskva River, its high and venerable white walls, its numerous battlements, variously colored towers, and steeples; the number and the magnificence of some of its fine edifices, with their differently painted roofs; the variety of its cathedrals, churches, monasteries, and belfries, with their almost innumerable domes, gilt, tin-plated, or green;—indeed the whole picture presents at the same time a varied unity,—a consonance and incongruity of objects,—a contrast of ancient and modern works of art and taste,—a beauty, grandeur, and magnificence indescribable and altogether unique. To be conceived it must be seen; and when seen it never fails to excite astonishment and delight.' All travellers agree that the view of the city from this place, especially from St. Ivan's Tower, surpasses every other in singularity and splendor.

Situated on the north side of the Moskva, which, in this part, bends into the form of a crescent, the shape of the entire Kremlin is triangular, the circumference about two miles. A high wall surrounds it, strongly built of brick, faced at the foundation with stone. There are five gates; at four of these there are steeples, and there are numerous watch towers. In passing through one of these, called Spaskiya Vorotui, or the Gate of Our Saviour, every male, from the sovereign to the peasant, takes off his hat, and remains uncovered; if a stranger neglects this, a sentinel directs or forces him to comply. Of the turrets with which the walls of the Kremlin are ornamented, almost all are of a square base and pyramidal elevation, yet exhibiting different styles of architecture. The most interesting is that immediately to the south of Our Saviour's Gate, on which was anciently suspended the alarm bell, and from which the ancient sovereigns of Muscovy used to witness or superintend the infliction of punishments, and the celebration of festivals. There are no regular streets in the Kremlin, but three open spaces called plostchads, or squares, of a very irregular shape, and abundance of room otherwise, for the numerous carriages and foot passengers with which it is always crowded in summer. The houses have in general stone foundations: in all cases the superstructure now consists of brick stuccoed, and painted generally in gaudy colors. All the houses belong to the crown. Besides the government-offices, the Kremlin contains the palace, the senate-house, the arsenal, the imperial museum, and a number of cathedrals, churches, and monasteries, among which is the most splendid and most sacred edifice in the empire, viz. the cathedral of the assumption of the Virgin Mary. This was built in 1479, on the site of the original edifice, and exhibits a specimen of the Greco-Italian architecture of the period. It is loaded with ornaments to a most extravagant degree. On the walls are painted 249 full images, and 2066 half-lengths and heads, many larger than nature. There are said to have been employed in embellishing it 210,000 gold leaves. The lustres are particularly magnificent and costly. In the middle of the church is suspended a crown of massy silver, accompanied with forty-eight chandeliers, all of a single piece, and weighing nearly 3000 lbs. There are also numerous candlesticks, almost as high as a man, some of silver, others of silvered copper, holding candles as thick as a man's leg. The cathedral of St. Michael ranks next to this, and was the sepulchre of the czars to the close of the sixteenth century.

The palace of the czars within the Kremlin is the next object most worthy of notice. Dr. Lyall says that this edifice 'is probably the most notable instance of constant change and renovation among all the large and more ancient edifices of Moscow.' In 1820 it consisted of three parts; the ancient palace of the czars, the audience-chamber, and the new palace. The ancient palace was built by an Italian architect at the beginning of the sixteenth century; but the style of it is so singular that it has been called Grecian, Gothic, Tartar, and Hindoo. In the belvidere are two small arched rooms, which were the czar's peculiar apartments. They communicated, by a narrow staircase, with an observatory, 'a kind of royal police-box,' where, at a certain fixed hour, the czar daily took his station, while crowds of supplicants assembled in the courts below, deposited their petitions upon a large stone adjoining the small church called Spas na Baru. These petitions were brought to the sovereign, who examined them, and dictated the answers, which were in like manner laid on the same stone till the petitioners came to receive them. Peter the Great was born in the old palace.

The new palace was originally built in 1748

by the empress Elizabeth; but it has been repeatedly altered and enlarged. The empress Catharine formed the project of erecting a most magnificent palace in the Kremlin. The plan was actually executed, and a superb model of it exists in the Imperial Museum. This, according to Dr. Clarke, is one of the most curious things in Moscow. 'If the work had been completed,' he remarks, 'it would have been the wonder of the world. The architect who constructed the plan was a Russian who had studied at Paris. This model cost 50,000 rubles. The expense necessary for the accomplishment of the undertaking (as the architect Camporesi, who made the estimate, assures us), would have been 50,000,000 of rubles. The calculation laid before the empress stated the amount only at 20,000,000. The work was begun, but, it is said, the falling in of a part of the foundation determined the empress against its prosecution. The plan was to unite the whole Kremlin, having a circumference of two miles, into one magnificent palace. Its triangular form, and the number of churches it contains, offered some difficulties; but the model was rendered complete. Its fronts are ornamented with ranges of beautiful pillars, according to different orders of architecture. Every part of it was finished in the most beautiful manner, even to the fresco painting on the ceiling of the rooms, and the coloring of the various marble columns intended to decorate the interior. It encloses a theatre and magnificent apartments. Had the work been completed it would have surpassed the temple of Solomon, the propylæum of Amasis, the villa of Adrian, or the forum of Trajan.'

The apartments of the new palace are not very large; but they are furnished in a most superb manner. 'Inlaid floors of various figures and colors, of oak and other wood; beautiful Wilton and Russian carpets; tapestry-colored walls of all shades; immensely large looking-glasses, some of which have many flaws, and others are joined; tables of mahogany, of Siberian beech, of nat-wood, stained and unstained, gilt and ungilt, of marble, of imitation lapis lazuli, and of malachite; chairs of the same woods, plain or covered with silk, and gilded; large crystal and bronze lustres, and a crowd of other ornaments, are all found here.' The audience-chamber, built at the close of the fifteenth century, was burnt in 1812; but it is now completely repaired and fitted up in its former style: its architecture is simple. The granovitaya palata, or square hall, from which the whole edifice takes its name, is a room about sixty-five feet square. 'In its centre rises an enormous square and highly gilt pillar, which loses itself by expansion into the arches, and with them supports the ceiling: the vaults are four in number, and each is crossed by a gilt twisted stucco cord, which has a good effect. Over each window are the arms of three of the governments of Russia. The walls are covered with crimson velvet, bronze chandeliers, and gilded ornaments, and the floor is overlaid with red cloth. Numerous lustres are suspended from the ceiling. The base of the central pillar is surrounded with shelves, on which, on great occasions, are arranged the gold and silver utensils and vessels belonging to the court. The throne on the south side is equally elegant with that in the palace. The room is disfigured by a number of seats like an orchestra in one of the chambers. Opposite the throne and near the roof is a semi-lunar window, from whence the imperial family, when not present in the hall, could observe the ceremonies after the coronation in the cathedral of the assumption, or witness the reception of ambassadors by his majesty. When the court is at Moscow balls are frequently given in this hall. On occasion of a ball in 1818 it was illuminated by 3500 wax candles, and presented a most magnificent appearance.'

The church of St. Philip in the Kremlin contains the patriarchal treasury, the riches of which consist of manuscripts and books, mitres and sacerdotal dresses and ornaments, vessels for holy oil, &c. The most valuable manuscripts are those of the Sclavonic New Testament, which date as far back as the eleventh and twelfth centuries. Dr. Lyall was shown 'a small parchment volume a good deal sullied, *said* to be the Gospel of St. Luke in his own hand-writing.' The vessels for the preparation of the holy oil consist of two large silver kettles or boilers, gilt inside, two feet and a half in diameter, which, together with silver stirrers and ladles, were presented to the synod by Catharine II. Between these boilers stands a large silver receiver, also a present of the empress. They weigh together upwards of 700 lbs. From the receiver the oil is emptied into sixteen elegant silver vases presented to the synod by the emperor Paul. The 'holy oil' is made once a year with great ceremony.

Dr. Lyall took pains to ascertain the history of the great bell of Moscow, and its exact size and weight. According to him it originally contained 8000 poods weight, and was cast in 1654. Being destroyed by fire it was recast, and 2000 additional poods of metal added to it in 1734. At this time it was actually suspended over the place where it was cast, at no great height. In 1737 the wooden edifice erected over it took fire, and the bell, becoming hot, was most probably cracked in consequence of cold water being thrown upon it to extinguish the flames. An inscription on it, recording its second casting, expressly states its weight to be 10,000 poods, equal to 360,000 English pounds. According to the measurement of Mr. Murray, an English engineer, the height, if it had been a full cast, would have been twenty-one feet: it is actually only twenty feet seven inches. The greatest diameter at the mouth of the bell is twenty-two feet eight inches. The top of the bell, or double ring, measures three feet one inch. Dr. Clarke makes the circumference sixty-seven feet four inches; the perpendicular height twenty-one feet four inches and a half; and the thickness of the metal, in its stoutest part, twenty-three inches. The top of the crack is five feet seven inches from the ground. The clapper, which lies at the foot of Ivan Veliki, is fourteen feet long On festivals the peasants visit this bell as they would a sanctuary, regarding it as an act of devotion, and crossing themselves all the way as they descend and ascend to it.

Moscow has long been the seat of an archbishop: his palace is in the Kremlin, and contains the regalia of the empire, with the relics of the patriarchs of Russia; in particular the splendid robes worn by them in ancient days: likewise a number of precious stones. The treasury contains also the crowns of Kasan, Astracan, Georgia, and Poland; a collection of swords from Damascus, and saddles studded with pearls, sapphires, and turquoises. These valuable appendages were removed and placed in safety, before the entrance of the French; but the latter stript the Kremlin of the celebrated cross of St. Ivan, or John, and carried it in their retreat as far as, and even beyond Wilna, but abandoned it in the height of their disasters.

The population of Moscow in summer does not much exceed 200,000; but in winter it is nearly 300,000, partly by the resort of traders, and yet more by the arrival from the country of families of rank, with a countless host of servants; for Moscow, not Petersburg, is still the great resort of the Russian nobility. Every thing here is in curious extremes; the nobility live in magnificence, while the populace are shivering with cold and hunger; and eagerly devouring their portions of meagre soup, cooked in the open air: even one part of the domestics of the same mansion are gaudily dressed, while another part are in rags.

The processions and popular joy on the saints and festival days of the different churches and monasteries are highly characteristic of this part of the world. On the festivals of the cathedrals and monasteries of this city there is a holy procession from the cathedral of the Assumption, of a greater or smaller number of the clergy, according to the importance of the festival. They walk on foot, with uncovered heads, in regular order, accompanied by the holy banners, crosses, books, &c., and are protected from the crowd by the police and gens d'armes on horseback. The image of the saint to whom the church is dedicated is peculiarly distinguished, and numerous burning candles are placed before it.

The Donskoi monastery, in the suburbs, is one of the first class. Dr. Lyall gives the following lively picture of its festival, held on the 19th of August:—'The fête begins with the chiming of he bells and divine service, the completion of which is the signal for general mirth: in fact, for the commencement of a Bartholomew fair. Crowds of visiters arrive throughout the day, and pay their devotions before the image of the Donskaya, Holy Mother of God. In the evening, at the entrance under the north belfry, is placed an image of the Virgin Mary, with abundance of holy water. Every visiter makes his devotions before this image, is sprinkled with holy water by a priest, deposits his charity, and passes into the interior. I remarked that the peasantry are really sprinkled with dexterity and in very rapid succession, but that the priest slowly dropped the water from the end of the brush into the hands of the nobility, and with it they rubbed their faces. For some days preceding this fête, many hands are employed in erecting tents, puppet-shows, stands of various kinds, horizontal and vertical swinging machines, —indeed, all the scenery which characterises a fair in England. On the plain before the monastery are grocers' stalls, cook-shops, fish-shops, taverns, and kabaks; also tea-tents, in which the gipsies sing, dance, &c. A great variety of fruit and vegetables is here to be found; and a number of circular elegant tents are elevated, around the interior of which are placed numerous great copper pots or tubs, filled with votki. The persons employed to sell this nectar of the day can scarcely answer the demands of the crowd, who, according to the quantity they purchase, receive it in a larger or smaller unglazed, shallow, earthen vessel, for which a deposit is given till returned. Spots of ground by the north wall of the monastery are covered with water-melons in great profusion. What attracts our greatest attention are crowds of peasantry every where squatted upon the field; men, women, and children, married and unmarried, forming different parties, and enjoying their various refreshments, while some others obtain a place within the drinking-tents or the tea-tents. All bellow forth their rude, untutored music, in merry chorus, especially after the votki has exhilarated their spirits, and the air resounds with the noise of revelry. In eating and drinking, dancing and singing, ogling and courting, enjoyment takes a hundred forms. Then come quarrels and abuse: drunkenness, and rolling, and tumbling, usually conclude the day. Such a fête is a perfect Russian scene, where much of the low national manners and customs of the people may be studied. The police are stationed every where about the monastery, to preserve order, and to regulate the procession of the innumerable carriages of the nobility, and especially of the merchants, who arrive at the monastery in the afternoon, perform their devotions, and then see the fair. As soon as the twilight approaches, the police interdict the sale of votki; but, when the weather is fine, great exertions are requisite to disperse the crowd, so that it is eleven or twelve o'clock at night before the curtain drops.'

Of the grand ceremonies at Lent and Easter, the third and most magnificent is celebrated two hours after midnight on the morning of Easter Sunday, and called the ceremony of the Resurrection. All the markets and shops of Moscow the night before are filled with flesh, butter, eggs, poultry, pigs, and every kind of food. Every foot-passenger has his hands and even his arms filled with provisions, and the droskies are ready to break down beneath their weight. Dr. Clark says, that this ceremony at Moscow exceeds every thing of the kind at Rome, not even excepting the papal benediction of the holy week. He thus describes the scene:—'At midnight, the great bell of the cathedral tolled; its vibrations seemed to be the rolling of distant thunder; and they were instantly accompanied by the noise of all the bells of Moscow. Every inhabitant was stirring, and the rattling of carriages in the streets was greater than at noon-day. The whole city was in a blaze; lights were seen in all the windows, and innumerable torches in the streets. The tower of the cathedral was illuminated from its foundation to its cross. The same ceremony takes place in all the churches; and what is

truly surprising, considering their number, they are all equally crowded. We hastened to the cathedral: it was filled with a prodigious assembly, consisting of all ranks of both sexes, bearing lighted wax tapers, to be afterwards heaped in rows upon the different shrines. The walls, the ceiling, and every part of the building, are covered with the pictures of saints and martyrs. At the moment of our arrival the doors were shut, and on the outside appeared Plato, the archbishop, preceded by banners and torches, and followed by all his train of priests, with crucifixes and censers, who were making, three times in procession, the tour of the cathedral, chanting with loud voices, and glittering in sumptuous vestments, bespangled with gold, silver, and precious stones. The snow had not melted so equally within the Kremlin as in the streets of the city; this magnificent procession was therefore constrained to move upon planks over the deep mud which surrounded the cathedral. After completing the third circuit, they all halted opposite the great doors, which were still closed; the archbishop with a censer then scattered incense against the doors and over the priests. Suddenly these doors were opened, and the effect was magnificent beyond description. The immense throng of spectators within, bearing innumerable tapers, formed two lines, through which the archbishop entered, advancing with his train to a throne near the centre. The profusion of lights in all parts of the cathedral, and, among others, those of the numerous chandeliers in the centre, the richness of the dresses, and the vastness of the assembly, filled us with astonishment. Having joined the suite of the archbishop, we accompanied the procession, and passed even to the throne; here the police-officers permitted us to stand among the priests, near an embroidered stool of satin placed for the archbishop. The loud chorus, which burst forth at the entrance to the church, continued as the procession moved towards the throne, and after the archbishop had taken his seat; when my attention was for a moment called off, by seeing one of the Russians earnestly crossing himself with his right hand, while his left was employed in picking my companion's pocket of his handkerchief. Soon after, the archbishop descended, and went all round the cathedral; first offering incense to the priests, and then to the people as he passed along. When he had returned to his seat, the priests, two by two, performed the same ceremony, beginning with the archbishop, who rose and made obeisance, with a lighted taper in his hand. From the moment the church doors were opened, the spectators had continued bowing their heads and crossing themselves, insomuch that some of the people seemed really exhausted by the constant motion of the head and hands.

'We had now leisure to examine the dresses and figures of the priests, which were certainly the most striking we had ever seen. Their long dark hair, without powder, fell down in ringlets, or straight and thick, far over their rich robes and shoulders; their dark thick beards also entirely covered their breasts. Upon the heads of the archbishops and bishops were high caps, covered with gems, and adorned with miniature paintings set in jewels, of the crucifixion, the virgin, and the saints. Their robes, of various colored satin, were of the most costly embroidery, and even upon these were miniature pictures set with precious stones. Such, according to the consecrated record of ancient days, was the appearance of the high priests of old: holy men, standing by the tabernacle of the congregation in fine raiment, the workmanship of 'Bezaleel, the son of Uri, the son of Hur, of the tribe of Judah.' It is said, there is a convent in Moscow, where women are entirely employed in working dresses for the priests. After two hours had been spent in various ceremonies, the archbishop advanced, holding forth a cross, which all the people crowded to embrace, squeezing each other nearly to suffocation. As soon, however, as their eagerness had been somewhat satisfied, he returned to the sacristy, under a pretence of seeking for the body of Christ; where, putting on a plain purple robe, he again advanced, exclaiming three times in a very loud voice, 'Christ is risen.'

'The most remarkable part of the ceremony now followed.—The archbishop, descending into the body of the church, concluded the whole ceremony by crawling round the pavement on his hands and knees, kissing the consecrated pictures, whether on the pillars, the walls, the altars, or the tombs; the priests and all the people imitating his example. Sepulchres were opened, and the mummied bodies of incorruptible saints exhibited; all of these underwent the same general kissing.'

Dr. Lyall reckons the population to have been in 1817, 312,000: of these 197,482 were males, and 114,518 females. In the same year the births amounted to 3437, and the deaths to 4463. In 1805, when the total population is supposed to have been 208,883, the nobility were reckoned at 12,165; the servants attached to their houses at 14,445; the slaves resident for a time at 45,155; those constantly resident at 12,540; priests, deacons, &c., with their wives, 3508; and foreigners 3811; of these last, upwards of 1000 were Germans.

A number of curious hackney-coaches are stationed in the streets. These vehicles are without tops, have mostly four wheels, and are provided either with a long bench, or one, two, or three separate seats, like armed chairs, placed sideways; these fares are so reasonable that servants occasionally use them upon errands to distant parts of the city. The coachman generally drives at the rate of eight or nine miles in an hour.

'There are such specimens of female loveliness among the nobility at Moscow,' says Sir R. K. Porter, 'that were I a Praxiteles, I need go no further to form my Venus! Before I came into this country,' he adds, 'I was led to believe that I should find the morals on a par with those of France. To me it seems totally the reverse. I never saw married people more happy, or apparently more affectionate towards each other. I never, in any country, met with young women more amiable and virtuous. Every country has

its mauvais sujets;—but, from what I have been able to judge, Moscow, for a city whose sole object is pleasure, possesses less of what is called fashionable vice than may be found in countries where more seeming austerity is practised.' Dr. Clarke and Dr. Lyall give, however, a much less favorable account of the state of morals here.

The manufactures of Moscow and its environs are silk, cotton, linen, paper, leather, and sugar; many of these establishments, being set on foot by individual noblemen, they are therefore liable to frequent fluctuations, and are often abandoned at the caprice of the founder or his family. Moscow is the grand entrepôt of the internal of the Russian empire. Riga and St. Petersburg send hither goods by the Baltic; Astracan affords a communication with the Caspian, and Odessa with the Black Sea; while furs and skins form here an important branch of commerce, both for domestic use and for export to the very heart of Asia. The Moskva is navigable in spring for barks, but in the rest of the year only for rafts.

Moscow possesses several scientific collections and societies: one of the most interesting of the former is an assemblage of Russian antiquities, and productions of India and China, made by a M. de Beauce. The medical profession is here filled in all its departments by foreigners.

The public officers are, besides those named, the military governor and the vice-governor, a civil governor, and the judges who preside in different courts, the business of which is conducted by written pleadings. There is here a criminal court; a tribunal of commerce, and several civil courts; together with boards for the management of public business. The number of ecclesiastics of all ranks is between 3000 and 4000.

The climate is subject to extremes, the thermometer frequently falling to 0° of Fahrenheit, and even 10° or 15° below it; while in summer it rises to 85°, 90°, and even 95°. Yet Moscow is not unhealthy; a free circulation of air is always secured: and the ground on which it stands is high.

This city was founded in the middle of the twelfth century, previous to which Kiev was the capital of Russia. It was enlarged in the thirteenth and fourteenth centuries; and taken in 1382, after a short siege, by Tamerlane. It subsequently fell more than once into the hands of the Tartars. Their last attack on it took place in 1571, when they set fire to the city, but were unable to force the Kremlin, to which the czar retired. Moscow was after this rebuilt with great splendor. In 1611 the Poles set the town on fire, 'so that there was nothing left but the castle.' Yet, in 1636, Olearius describes it as about three leagues in circumference, and containing above 40,000 houses. 'It is, out of all question,' he says, 'one of the greatest cities in Europe.' It remained for a century and a half the sole capital of Russia. It continued the frequent residence of the court, until the commencement of the reign of Catherine II., and is now considered twelve times as large as its rival St. Petersburg. It is in a direct line, 397 miles south-east of St. Petersburg, and 1042 east by north of Vienna. Long. 37° 33′ E., lat. 55° 45′ 45″ N.

MOSELLE, department of the, France, is formed out of the former district of Messin, French Luxembourg, and part of Germain Lorraine, and derives its name from the river Moselle, which crosses it from south to north. The chief place of this prefecture is Metz, and it is divided into four arrondissements; Metz containing 138,336 inhabitants; Briey 55,559; Sarguemines 105,036, and Thionville 74,661; being a total population of 373,592 souls on a surface of 2790 square miles. It is subdivided into twenty-seven cantons, and 566 communes, yielding a territorial revenue of 16,528,000 francs, forming part of the third military division, having a royal court and bishopric at Metz, and consisting of four electoral arrondissements, that send seven members to the chamber of deputies. This department is bounded on the north and north-east by the kingdom of the Netherlands; on the east by the department of the Lower Rhine; on the south by that of the Meurthe, and on the west by that of the Meuse.

It is generally a mountainous and woody country; but, along the course of the Moselle, this department presents some vast well cultivated plains, and fine meadow lands with good pasturage, and large fish ponds. The elevated parts are covered with forests, that are stocked with game of all kinds. The hills are well planted with fruit trees, and those on the left bank of the Moselle are covered with vines that yield wine of a good quality; the most esteemed is that of Say, Jussy, Dole, and St. Ruffine. The soil produces abundance of grain, vegetables, hops, flax, and hemp; and the numerous nurseries that are found in this country prove the care of the inhabitants in cultivating the best sorts of fruit. The cultivation is chiefly by horses, and the supply more than sufficient; there are 132,070 hectars of forest land, chiefly oak and beech, and 4500 hectars of vineyards, the average produce of each hectar of arable land being twenty-five francs, sixty-five cent. The country also abounds in great and small game, such as wolves, various birds of passage, ortolans, &c. There are mines of iron, manganese, and coal; quarries of freestone, silicious graystone, quartz, plaster, crucible, and potters' clay, &c., likewise a few salt springs.

Manufactures are carried on here of clothing for the troops, common cloths, flannels, painted papers, hats, gold and silver lace, embroidery, pipes, glue, paper snuff-boxes, leather arms, scythe blades, and other ironmongery. There are also cotton and woollen spinning factories, refining houses for beet root, distilleries, considerable manufactures of warlike weapons, numerous forges and blast furnaces, glass houses, delf potteries, tile and lime kilns, brass foundries, &c. A considerable trade is carried on in wine, brandy, confectionary, honey, bacon, hams, wool, iron in bars, plate iron, nails, and building wood. The principal rivers are the Moselle and the Sarre navigable, the Chiers, the two Nieds, the Seille, the Orne, the Crune, and the Albe, and it is crossed by the great roads from Verdun, Nancy, Chalons, Strasburg, and Luxembourg.

MOSELLE, a considerable river of France, rises at the foot of the Taye, above the village of Bus-

sang, in the arrondissement of Remiremont, department of the Vosges. Passing thence to Ramonchamp, Epinal, Chatel, Charmes, Bayon, Pont St. Vincent, Toul, Frouard, Pont-a-Mousson, Metz, Thionville, and Sierck, below which it enters the grand duchy of the Lower Rhine, waters Treves, Berncastel, and Trarbach, and falls into the Rhine at Coblentz. In its course, which is about 390 miles, it receives the waters of the Madon, the Meurthe, the Seille, the Ormes, the Sarre, and numerous other rivers. It begins to be practicable for floats near Dommartin in the department of the Vosges, and becomes navigable at Frouard in the Meurthe. The goods transported along it may be seen in the description of the department of the same name. It mostly flows between rocks over a sandy and gravelly bottom, and that with great rapidity; its waters are delightfully clear and fructifying.

MOSES, Heb. משה, i. e. drawn up, the son of Amram, and great-grandson of Levi, was born in the year 1571 B.C. Pharaoh king of Egypt, perceiving that the Hebrews were become a formidable nation, had issued an edict commanding all the male children to be put to death. Jochebed, the mother of Moses, having, to avoid this cruel edict, concealed her son for three months, at length made an ark of bulrushes, daubed it with pitch, laid the child in it, and exposed him on the banks of the Nile. Thermuthis, the king's daughter, walking by the river's side, perceived the floating cradle, commanded it to be brought to her, and, struck with the beauty of the child, determined to preserve his life. In three years afterwards she adopted him for her son, called his name Moses, and caused him to be instructed in all the learning of the Egyptians. But his father and mother, to whom he was restored by a fortunate accident, were at still greater pains to teach him the history and religion of his fathers. Many things are related by historians concerning the first period of Moses's life, which are not recorded in the Old Testament. According to Josephus and Eusebius, he made war on the Ethiopians, and completely defeated them. They add, that the city Saba, in which the enemy had been forced to take refuge, was betrayed into his hands by the king's daughter, who became deeply enamoured of him, when she beheld from the top of the walls his valorous exploits at the head of the Egyptian army. But the truth of this expedition has been doubted. But from the sacred records we learn events of much greater importance, which commenced in the fortieth year of Moses's age. His leaving the court of Pharaoh, and visiting his oppressed brethren; his killing one of their oppressors, and consequent flight to Midian; his forty years' residence with Jethro, marriage with his daughter Zipporah, and birth of his son Gershom; his vision of the burning, but unconsumed bush; his mission by the Almighty to Pharaoh; his hesitation, and the miracles wrought with his rod to encourage him; his meeting with his brother Aaron; their reception by the Egyptian tyrant, and consequent increase of the Hebrews' tasks; their miracles wrought to convince him without effect; the threatenings and execution of the ten plagues; 1. By the change of the waters of Egypt into blood; 2. By swarms of frogs; 3. Of lice; 4. Of flies; 5. By pestilence among the cattle; 6. By ulcers and fiery boils; 7. By a dreadful storm of thunder, lightning, and hail; 8. By swarms of locusts; 9. By thick darkness; and, 10, by the death of the first-born; with Pharaoh's reluctant consent to liberate the Hebrews; his pursuit of them, and destruction in the Red Sea; are particularly recorded in Exod. ii.—xx. Profane authors, who have written of Moses, seem to have been partly acquainted with these mighty wonders. That he performed miracles has been allowed by many, by whom he was considered as a famous magician; and he could scarcely appear in any other light to men who did not acknowledge him for the messenger of the Almighty. Both Diodorus and Herodotus mention the distressed state to which Egypt was reduced by these terrible calamities. The subsequent history of Moses and the Israelites we have from the same authentic records. Their journeyings and various encampments in the wilderness; their battles with the Amalekites; their arrival at Mount Sinai; Moses's reception of the law from the Almighty; the idolatry of the people while he was on the mount, which made him break the tables; their punishment; his receipt of the two tables a second time; his illuminated appearance on his return; his erection and consecration of the tabernacle, which served instead of a temple till the building of the famous one by Solomon; his consecration of Aaron and his sons, and the Levites, to the priesthood; his theocratic government of the Hebrews, under the immediate authority and direction of the Almighty, with their repeated murmurings; his dying blessing upon them, with his prophecy of our Saviour; his distant view of the promised land from Mount Pisgah, and his death, are recorded, with other important particulars, in the last four books of the Pentateuch. He died, without sickness or pain, in the 120th year of his age, and 1451 years B.C. Moses is incontestably the author of the first five books of the Old Testament, which are acknowledged to be inspired by the Jews, and by Christians of every persuasion. Thomas Paine and others, however, have denied that Moses was the author of these books, because he always speaks of himself in the third person. But this manner of writing is not peculiar to Moses; it occurs in several celebrated ancient historians, such as Xenophon, Cæsar, Josephus, &c., who have thus evidenced more modesty and good sense than some modern historians, whose egotism is altogether disgusting.

Moses (Chorenensis), an historian and geographer, archbishop of Chorene in Armenia A. D. 462. He translated several Greek works into the Armenian, was well acquainted with the Syriac, and a proficient in music and poetry. His chief work, A History of Armenia, from the deluge to the middle of the fifth century, was published with a Latin version by John and William Whiston, sons of William Whiston, in 1736, and though mixed up with fable contains many authentic particulars not elsewhere to be found. He was also the author of an Abridgment of Geography, published at Amsterdam 1668, and several canticles, which are sung in

Armenian on the anniversary of Christ's presentation.

Moses Ægyptius. See Maimonides.

MOSHEIM (John Laurence), an illustrious German divine, born in 1695, of a noble family, which might have opened to his ambition a fair path to civil promotion; but his thirst after knowledge, and his taste for sacred literature, induced him to devote his talents to the church. The German universities loaded him with literary honors; the king of Denmark invited him to Copenhagen: the duke of Brunswick called him thence to Helmstadt, where he filled the academical chair of divinity, was made ecclesiastical counsellor to the court, and presided over the seminaries of learning in Wolfenbuttle and Blanckenburgh. To give a degree of lustre to the university of Gottingen, Dr. Mosheim was placed at the head of it, as chancellor; and he died there, universally lamented, in 1755. In judgment, taste, eloquence, erudition, and philosophy, he had certainly very few superiors. His principal work is his Ecclesiastical History, from the birth of Christ to the beginning of the eighteenth century, written in Latin. It was translated into English, and accompanied with notes and chronological tables, by Archibald Maclain, D.D., 1758, in 5 vols. 8vo.

MOSKVA, a river of Moscow, which gives name to the capital, and flows through it in a winding channel; but, excepting in spring, is only navigable for rafts. It receives the Yama in the Semlianogorod, and the Neglina at the western extremity of the Kremlin; the beds of both these last-mentioned rivulets are in summer little better than dry channels.

MOSQUE, *n. s.* Fr. *mosquée;* Ital. *moschia;* Arab. *musjid.* A Mahometan temple, or place of divine worship.

Accordingly, at the aforesaid times, of which public notice is given by the muedhekins, or criers, from the steeple of their *mosques* (for they use no bells) every conscientious moslem prepares himself for prayer, which he performs either in the *mosque* or any other place, provided it be clean, after a prescribed form. *Sale's Koran.*

Mosques, are square buildings, generally constructed of stone. Before the chief gate there is a square court paved with white marble; and low galleries round it, whose roof is supported by marble pillars. In these galleries the Turks wash themselves before they go into the mosque. In each mosque there is a great number of lamps; and between these hang many crystal rings, ostrich's eggs, and other curiosities, which, when the lamps are lighted, make a fine show. As it is not lawful to enter the mosque with stockings or shoes on, the pavements are covered with pieces of stuff sewed together, each being wide enough to hold a row of men kneeling, sitting, or prostrate. The women are not allowed to enter the mosque, but stay in the porches without. About every mosque there are six high towers, called minarets, each of which has three little open galleries, one above another: these towers, as well as the mosques, are covered with lead, and adorned with gilding and other ornaments; and thence, instead of a bell, the people are called to prayers by certain officers appointed for that purpose. Most of the mosques have a kind of hospital belonging to them, in which travellers of what religion soever are entertained three days. Each mosque has also a place called tarbe, which is the burying-place of its founders; within which is a tomb six or seven feet long, covered with green velvet or sattin; at the ends of which are two tapers, and round it several seats for those who read the koran, and pray for the souls of the deceased. The mosque of St. Sophia, at Constantinople, is equally celebrated throughout Christendom and Islam for its beauty, magnitude, and splendor. If the Arab temples astonish by their huge extent and prodigious colonnades supporting their arches and vaults, those of the Turks possess another kind of claim to notice and admiration, in the grandeur and height of their various cupolas. Every province of Turkey has its own particular style and taste with regard to these religious structures; and as the Moresque architecture possesses no fixed rules, deeming lightness and elegance alone to be the fundamental laws of the art, the architect is allowed to follow the bent of his own fancy freely. The ornaments of the Turkish mosques, although perhaps redundant and superfluous, yet have a species of harmony among themselves, and, united, present a general effect which is in no slight degree pleasing and impressive. M. Denon bestows high commendations on many of these buildings and their constructors, who, he says, are able to achieve wonders, considering the still imperfect and inferior nature of their tools and materials.

MOSQUITOS, or the Mosquito Bank, is the name of a cluster of islands, near the coast of Honduras, which gives name to a tract of country on the continent, the Mosquito shore. See below. Long. 82° 10′ W., lat. 14° 30′ N.

MOSQUITO Shore, a tract of country lying along part of the northern and eastern shore of Honduras, claimed by the British. We held this country for eighty years, and abandoned it in 1787 and 1788: the Spaniards, however, call it a part of Honduras, and claim it as such. It is an unhealthy, hot country, chiefly inhabited by Mosquito Indians, formerly a powerful and numerous race; but European diseases and rum have diminished their numbers. They inhabit, however, nearly the whole coast of Honduras, and have a large settlement near Cape Gracios a Dios. This has, however, been the subject of many enquiries and disputes, as these Indians differ in their persons from the other natives, and it is said by many authors that they are the descendants of the slaves of a Guinea ship, wrecked near this cape. They are called the Samboe Mosquitoes.

MOSS, *n. s.* & *v. a.* } Sax. meor; French
Moss'iness, *n. s.* } *mousse;* Ital. *moss;* Belg.
Mossy, *adj.* } *mosch;* Latin *muscus.*

A plant once considered an excrescence on trees: to cover with moss. Mossiness is the state of being covered or overgrown with this plant. Mossy, abundant in, or overgrown with moss.

An oak whose boughs were *mossed* with age,
And high top bald with dry antiquity. *Shakspeare.*

Moss is a kind of mould of the earth and trees;

but it may be better sorted as a rudiment of germination. *Bacon.*

Old trees are more *mossy* far than young; for that the sap is not so frank as to rise all to the boughs, but tireth by the way, and putteth out *moss*.
Id. Natural History.

The herbs withered at the top, showeth the earth to be very cold, and so doth the *mossiness* of trees.
Bacon.

Neither doth penitent Manasseh build God a new altar, but he repairs the old; which by long disuse lay waste, and was *mossy* and mouldered with age and neglect. *Bp. Hall.*

About the *mossy* brooks and springs,
And all inferior beauteous things. *Cowley.*

Houses then were caves, or homely sheds
With twining oziers fenced, and *moss* their beds.
Dryden.

Such *mosses* as grow upon walls, roofs of houses, and other high places, have seeds that, when shaken out of their vessels, appear like vapour or smoke.
Ray on the Creation.

The *mossy* fountains and the sylvan shades
Delight no more. *Pope's Messiah.*

Though *moss* was formerly supposed to be only an excrescence produced from the earth and trees, yet it is no less a perfect plant than those of greater magnitude, having roots, flowers, and seeds, yet cannot be propagated from seeds by any art. The botanists distinguish it into many species; it chiefly flourishes in cold countries, and in the winter season, and is many times very injurious to fruit trees; the only remedy in such cases, is to cut down part of the trees, and plough up the ground between those left remaining; and in the spring, in moist weather, you should with an iron instrument scrape off the *moss*.
Miller.

Moss, or Mosses, in botany. See Musci.

Moss, on trees, in gardening. The growth of large quantities of moss on any kind of tree is a distemper very prejudicial to its increase, and greatly damages the fruit of the trees of many orchards. The usual remedy is the scraping it off from the body and large branches by a kind of wooden knife that will not hurt the bark, or with a piece of rough hair-cloth, which does very well after a soaking rain. But the most effectual cure is the taking away the cause, by draining off all the superfluous moisture from about the roots of the trees; and may be guarded against in the first planting, by not setting them too deep. If trees stand too thick in a cold ground, they will always be covered with moss. The best remedy is to thin them. When the young branches of trees are covered with a long and shaggy moss, it will utterly ruin them; and there is no way to prevent it but to cut off the branches near the trunk, and even to take off the head of the tree if necessary; for it will sprout again; and if the cause be in the mean time removed by thinning the plantation, or draining the land and stirring the ground well, the young shoots will continue clear after this. If the trees are covered with moss in consequence of the ground being too dry (as this will happen from either extreme in the soil), the proper remedy is laying mud from the bottom of a pond or river pretty thick about the root, opening the ground to some distance and depth to let it in. This will not only cool it, and prevent its giving growth to any great quantity of moss, but will also prevent any other mischief which fruit trees are liable to in dry grounds, by the falling of the fruit too early. The mosses which cover the trunks of trees, as they always are most vigorous on the side which points to the north, if only produced on that side serve to preserve the trunk of the tree from the severity of the north winds, and direct the traveller in his way, by always plainly pointing out that part of the compass.

Moss is also a name given by some to the boggy ground in many parts of England, otherwise called a bog or fen. In many of these grounds, as well in Britain and Ireland as in other parts of the world, there are found vast numbers of trees standing with their stumps erect, and their roots piercing the ground in a natural posture as when growing. Many of these trees are broken or cut off near the roots, and lie along, usually in a north-east direction. To account for this many authors have resolved it into the effect of the deluge in the days of Noah; but this conjecture is proved false by many decisive arguments. The waters of this deluge might indeed have washed together a great number of trees, and buried them under loads of earth; but then they would have lain irregularly and at random; whereas they mostly lie lengthwise from south-west to north-east, and the roots all stand in their natural perpendicular posture, as close as the roots of trees in a forest. Besides, these trees are not all in their natural state, but many of them have evident marks of human workmanship upon them, some being cut down with an axe, some split, and the wedges still remaining in them; some burnt in different parts, and some bored through with holes. These things are also proved to be of a later date than the deluge, by other relics found among them, such as ancient utensils and coins of the Roman emperors. It appears from the whole, that all the trees, which we find in this fossile state, originally grew in the very places where we now find them, and have only been thrown down and buried there, not brought from other places. It may appear indeed an objection to this opinion, that most of these fossile trees are of the fir kind; and that Cæsar says expressly, that no firs grew in Britain in his time: but this is easily answered by observing, that these trees, though of the fir kind, yet are not the species usually called the fir, but pitch tree; and Cæsar has no where said that pitch trees did not grow in England. In Hatfield Marsh, where such vast numbers of the fossile trees are now found, there has evidently once been a whole forest of them growing. The last of these was found alive, and growing in that place within these last eighty years, and cut down for some common use. It is also objected by some, to the system of the firs growing where they are found fossile, that these countries are all bogs and moors, whereas these trees grow only in mountainous places. But this is a mistake; for though in Norway, in Sweden, and some other cold countries, the fir kinds all grow upon barren and dry rocky mountains, yet in warmer places they are found to thrive as well on wet plains. Such are found plentifully in Pomerania, Livonia, and Courland, &c.; and in the west parts of New England

there are vast numbers of fine stately trees of them in low grounds. The truth seems to be, that these trees love a sandy soil; and such is found at the bottoms of all the mosses where these trees are found fossile. The roots of the fir kind are always found fixed in these; and those of oaks, where they are found fossile in this manner, are usually found fixed in clay: so that each kind of tree is always found rooted in the places where they stand in their proper soil; and there is no doubt but that they originally grew there. When we have thus found that all fossile trees we meet with once grew in the places where they are now buried, it is plain that in these places there were once noble forests, which have been destroyed at some time; and the question only remains how and by whom they were destroyed. This, we have reason to believe, from the Roman coins found among them, was done by the people of that empire, when they were established in Britain. Cæsar tells us that, when their armies pursued the wild Britons, these people always sheltered themselves in the miry woods and low watery forests; and Cassibelan and his Britons, after their defeat, passed the Thames, and fled into such low morasses and woods, that there was no pursuing them. We find that the Silures secured themselves in the same manner when attacked by Ostorius and Agricola. The same thing is recorded of Venutius, king of the Brigantes, who fled, to secure himself, into the boggy forests in the midland part of this kingdom: and Herodian expressly says, that, while the Romans were pushing their conquests in these islands, it was the custom of the Britons to secure themselves in the thick forests which grew in their boggy and wet places; and, when opportunity offered, to issue out thence and fall upon the Romans. The consequence of all this was the destroying of those forests; the Romans, finding themselves so harassed by parties of the natives issuing out upon them at times from these forests, gave orders for the cutting down and destroying all the forests in Britain which grew on boggy and wet grounds. These orders were punctually executed; and to this it is owing, that we can now hardly believe that such forests ever grew in Britain as are now found buried in mosses. The Roman historians all agree, that, when Suetonius Paulinus conquered Anglesea, he ordered all the woods to be cut down there, after the manner of the Roman generals in England: and Galen tells us, that the Romans, after their conquest in Britain, kept their soldiers constantly employed in cutting down forests, draining marshes, and paving bogs. Not only the Roman soldiers were employed in this manner, but all the native Britons made captives in the wars were obliged to assist in it: and Dion Cassius says, that the emperor Severus lost no fewer than 50,000 men, in a few years, in cutting down the woods and draining the bogs of this island. It is not then to be wondered at, that such numbers executed the immense destruction which we find in these buried forests. One of the greatest subterranean treasures of wood is that near Hatfield; and it is easy to prove that these people, to whom this havock is thus attributed, were upon the spot where these trees now lie buried. The common road of the Romans, out of the south into the north, was formerly from Lindum (now Lincoln) to Segelochum (Little Burrow upon Trent), and thence to Danum (now Doncaster), where they kept a standing garrison of Crispinian horse. A little off on the east and north-east of this road, between the two last named towns, lay the borders of the greatest forest, which swarmed with wild Britons, who were continually making their sallies out, and their retreats into it again, intercepting their provisions, taking and destroying their carriages, killing their allies and passengers, and disturbing their garrisons. This at length so exasperated the Romans that they were determined to destroy it; and, to do this safely and effectually, they marched against it with a great army, and encamped on a great moor near Finningly, where the fortifications yet remain. There is a small town in the neighbourhood called Osterfield; and as the termination field seems to have been given chiefly in remembrance of battles fought near the towns, whose names end with it, it is probable that a battle was fought here between the Britons who inhabited this forest and the Roman troops under Ostorius. The Romans slew many of the Britons, and drove the rest back into this forest, which at that time overspread all this low country. On this the conquerors, taking advantage of a strong south-west wind, set fire to the pitch trees, of which this forest was principally composed; and, when the greater part of the trees were thus destroyed, the Roman soldiers and captive Britons cut down the remainder, except a few large ones, which they left standing as memorials of the destruction of the rest. These single trees, however, could not stand long against the winds; and these, falling into the rivers which ran through the country, interrupted their currents; and the water, then overspreading the level country made one great lake, and gave origin to the mosses or moory bogs which were afterwards formed there, by the workings of the waters, the precipitation of earthy matter from them, and the putrefaction of rotten boughs and branches of trees, and the vast increase of water-moss, and other such plants which grow in prodigious abundance in all these places. Thus were these burnt and felled trees buried under a new-formed spongy and watery earth, and afterwards found on the draining and digging through this earth again. Hence Roman weapons and Roman coins are found among these buried trees; and hence among the buried trees some are found burnt, some chopped and hewn; and hence it is that the bodies of the trees all lie by their proper roots, and with their tops lying north-east, that is, in that direction in which a south-west wind would blow them down: hence, also, it is, that some of the trees are found with their roots lying flat, these being not cut or burnt down, but blown up by the roots afterwards when left single; and it is not wonderful that such trees as these should have continued to grow even after their fall, and shoot up branches from their sides, which might easily grow into high trees. Upon this hypothesis it is also easily explained,

why the moor-soil in the country is in some places two or three yards thicker than in others, or higher than it was formerly, since the growing up of peat, earth, or bog-ground, is well known, and the soil added by overflowing of waters is not a little. As the Romans were the destroyers of this great and noble forest, so they were probably also of the several other ancient forests; the ruins of which furnish us with the bog-wood of Staffordshire, Lancashire, Yorkshire, and other countries. But as the Romans were not much in Wales, in the Isle of Man, or in Ireland, it is not to be supposed that forests cut down by these people gave origin to the fossile wood found there; but though they did not cut down these forests, others did; and the origin of the bog-wood is the same with them and with us. Holingshed informs us, that Edward I. being not able to get at the Welsh, because of their hiding themselves in boggy woods, gave orders at length that they should all be destroyed by fire, and by the axe; and doubtless the roots and bodies of trees found in Pembrokeshire under ground are the remains of the execution of this order. The fossile wood in the bogs of the Isle of Man is doubtless of the same origin, though we have not any accounts extant of the time or occasion of the forests there being destroyed; but, as to the fossile trees of the bogs of Ireland, we are expressly told, that, when Henry II. conquered that country, he ordered all the woods to be cut down that grew in the low parts of it, to secure his conquests, by destroying the places of resort of the rebels.

In the Philosophical Transactions we have an account of a moving moss near Churchtown in Lancashire, which greatly alarmed the neighbourhood as miraculous. The moss was observed to rise to a surprising height, and soon after sunk as much below the level, and moved slowly towards the south. A very surprising instance of a moving moss is that of Solway in Scotland, which happened in 1771, after severe rains, which had produced terrible inundations of the rivers in many places. About 800 acres of arable ground were overflowed by moss, and the habitations of twenty-seven families destroyed. Tradition has preserved the memory of a similar inundation in Monteith in Scotland. A moss there altered its course in one night, and covered a great extent of ground.

Moss, a town of the south of Norway, in the bishopric of Christiania, on a large bay which allows ships of considerable size to come close to the town. It has 3000 inhabitants, and a brisk export trade in deal. There are about thirty sawmills at the mouth of an adjacent stream: also a large iron work and cannon foundry. Thirty-eight miles south of Christiania, and seventeen north of Frederickstadt.

Moss (Dr. Robert), dean of Ely, was born at Gillingham in Norfolk in 1666. He was bred at Bennet College, Cambridge, where he early acquired great reputation. He became preacher to the society of Gray's Inn, London, in 1698; and assistant to Dr. Wake at St. James's in 1699. He was chaplain to king William III., queen Anne, and king George I.; and when queen Anne visited the university of Cambridge, April 5th, 1705, he was created D. D. In 1709 he was chosen lecturer by the parishioners of St. Lawrence Jewry, which he held till 1727. In 1712 he was nominated by the queen dean of Ely; and in 1714 he was collated rector of Glaston by bishop Robinson. The gout deprived him of the use of his limbs for some of the last years of his life. He died in 1729, in his sixty-third year, and was buried in his own cathedral. Eight volumes of his sermons were published by Dr. Snape, and he is also said to have been the author of a pamphlet printed in 1717, entitled The Report Vindicated from Misreports; being a defence of the bishops and clergy of the lower house of convocation, concerning their consultations about the bishop of Bangor's writings. He wrote also some Latin and English poems.

MOSS-TROOPERS, a rebellious sort of people in the north borders of England, who lived by robbery and rapine, not unlike the tories in Ireland, the buccaniers in Jamaica, or banditti of Italy. The counties of Northumberland and Cumberland were charged with a yearly sum, and a command of men, to be appointed by justices of the peace, to apprehend and suppress them.

MOST, *adj.*, *adv.*, & *n. s.* } Sax. mæst; Swed.
MOST'LY, *adv.* } *mest*; Goth. *mest*,
MOST'WHAT, *adv.* } *moust*; Belg. *meest*;

Teut. *meist* or *merest*. Superlative of some, great, and much. See MORE. Greatest in quantity, size, or number: as an adverb, in the greatest degree; a particle denoting superlativeness: as a substantive, the greatest number; value; degree of any kind; the utmost. Mostly is for the greatest part. Mostwhat, an obsolete word for the most part.

They all repaired both *most* and least. *Spenser.*

Coward dogs
Most spend their mouths, when what they seem to threaten
Runs far before them. *Shakspeare.*

A Spaniard will live in Irish ground a quarter of a year, or some months at the *most*. *Bacon.*

This image of God, namely, natural reason, if totally or *mostly* defaced, the right of government doth cease. *Id.*

The report of this repulse flying to London, the *most* was made of that which was true, and many falsities added. *Hayward.*

Competency of all other proportions is the most incentive to industry; too little makes men desperate, and too much careless. *Decay of Piety.*

Go then, and envy the great man's weak stomach, sleepless nights, racks of cares: envy to him, if thou can'st, the slippery stairs of the court, and the common envy of the *most*. *Bp. Hall.*

God's promises being the ground of hope, and those promises being but seldom absolute, mostwhat conditionate, the Christian grace of hope must be proportioned and attemperate to the promise; if it exceed that temper and proportion, it becomes a tympany of hope. *Hammond.*

It (an oath) is an invocation of God, as a most faithful witness concerning the truth of our words, or the sincerity of our meaning. *Barrow.*

He for whose only sake,
Or *most* for his, such toils I undertake.
Dryden.

A covetous man makes the *most* of what he has, and can get, without regard to Providence or Nature. *L'Estrange.*

Whilst comprehended under that consciousness, the little finger is as much a part of itself as what is *most* so. *Locke.*

That which will *most* influence their carriage will be the company they converse with, and the fashion of those about them. *Id.*

Many of the apostles' immediate disciples sent or carried the books of the four evangelists to *most* of the churches they had planted. *Addison.*

Garden fruits which have any acrimony in them, and *most* sorts of berries, will produce diarrhœas. *Arbuthnot.*

Gravitation, not being essential to matter, ought not to be reckoned among those laws which arise from the disposition of bodies, such as *most* of the laws of motion are. *Cheyne.*

The faculties of the supreme spirit *most* certainly may be enlarged without bounds. *Id.*

He thinks *most* sorts of learning flourished among them, and I, that only some sort of learning was kept alive by them. *Pope.*

The spring time of our years
Is soon dishonoured and defiled in *most*
By budding ills, that ask a prudent hand
To check them. *Cowper.*

MOSTAR, an inland town of Bosnia, in the north-west of European Turkey, and the chief place of the district or rather province of Herzegovina. It has a remarkable old Roman bridge over the Narenta, and contains 9000 inhabitants, and a fine manufacture of arms.

MOSUL, a large town of the pachalic of Bagdad, Asiatic Turkey. It stands on the west bank of the Tigris, and the river, which is 300 feet wide, sometimes flows with great rapidity to the level of the houses. Its ornaments are a college, the tomb of sheik Abdul Kassin, and the remains of a beautiful mosque built by sultan Noureddin of Damascus. The coffee-houses, baths, khans, and bazaars, are handsome: but the Kara Serai, or black palace, being in ruins, the pacha resides in a cluster of small buildings. The castle, occupying an artificial island in the Tigris, is now very much decayed; but the city has still a stone wall and seven gates. The houses are built partly of brick and partly of stone; and, as timber is scarce and dear, the ceilings of the apartments are all vaulted. The inhabitants are a mixture of Turks, Curds, Jews, Nestorians, Armenians, and Arabs. The place forms an independent government, under the command of a pacha of two tails. Population 35,000. To the north, on the opposite side of the river, is Nunia, supposed to occupy the site of the ancient Nineveh. Lat. 36° 21′ N.

MOTACILLA, in ornithology, the wagtail and warbler, a genus of birds of the order of passeres; distinguished by a straight weak bill of a subulated figure, a tongue lacerated at the end, and very slender legs. There are about 200 species, besides varieties. The most remarkable are these:—

1. M. alba, the white wagtail, frequents the sides of ponds and small streams, and feeds on insects and worms. The head, back, and upper and lower side of the neck, as far as the breast, are black; in some the chin is white, and the throat marked with a black crescent; the breast and belly are white; the quill-feathers are dusky; the coverts black, tipt and edged with white. The tail is very long, and always in motion. Mr. Willoughby observes that this species shifts its quarters in the winter, moving from the north to the south of England. In spring and autumn it is a constant attendant on the plough, for the sake of the worms thrown up by that instrument. These birds make their nest on the ground, composed of dry grass, fine fibres of roots, and moss, lined within with hair or feathers. The eggs are five in number, white, spotted with brown; and for the most part there is only one brood in a year.

2. M. atricapilla, the black-cap, is smaller than the linnet, or even the pettychaps. The bill is brown; the top of the head is black; and the upper parts of the body are of a greenish ash-color; the sides of the head and under parts are gray, changing to very light gray, or almost white, towards the vent; the quills and tail are cinereous brown, margined with the same color as the upper parts; the legs are lead-colored, and the claws black. This species is pretty common in England, and elsewhere in Europe, as far as Italy; in all which places it breeds, coming in spring and retiring in September. In Italy it builds twice in the year; with us only once. The nest, which is generally placed in some low bush near the ground, is composed of dried stalks, mixed with a little wool and green moss round the verge; the inside lined with the fibres of roots, thinly covered with black horse-hair. The eggs are five in number; of a pale reddish brown, mottled with a deeper color, and sprinkled with a few dark spots. The male and the female sit by turns during incubation; and the young very early leap out of the nest, especially if any one approaches it, and forsake it for ever. The food is chiefly insects; but in defect of these they eat the fruit of spurge laurel, service, and ivy; and seem to be even fond of the last, as they much frequent trees overgrown with it. The song is much esteemed, in many things almost equalling the nightingale itself; scarcely deficient, except in the delightful variety of note. Hence it has been named the mock nightingale.

3. M. cyanea, the superb warbler, a most beautiful species, is five inches and a half long. The bill is black; the feathers of the head are long, and stand erect like a full crest; from the forehead to the crown they are of a bright blue; thence to the nape black like velvet; through the eyes from the bill there runs a line of black; and beneath the eye springs a tuft of the same blue feathers; beneath which, and on the chin, it is of a deep blue, almost black, and feeling like velvet: on the ears is another patch of blue, and across the back part of the head a band of the same; the whole giving the head a greater appearance of bulk than is natural: the hind part of the neck, and upper parts of the body and tail, are of a deep blue black; the under parts pure white; the wings are dusky, the shafts of the quills chestnut; the legs dusky brown; the claws black. This species inhabits Van Diemen's Land. The female is entirely destitute of all the fine blue colors, both pale and dark, by

which the male is adorned, except that there is a very narrow circle of azure round each eye, apparently on the skin only; all the upper feathers consist of shades of brown, and the whole throat and belly is pure white. Except from the shape and size, the female would not be suspected to belong to the same species as the male: the epithet of superb therefore applies very ill to her.

4. M. ficedula, the epicurean warbler, is in length five inches: the upper parts are gray brown; the under parts grayish-white, with a tinge of brown on the breast; and the legs are blackish. This species is much esteemed on the continent for the delicate flavor of its flesh. Their chief food is insects; except in autumn, when they make great havock among the figs and grapes; whence, it is supposed, their great delicacy arises. It is not found in England, but in most of the intermediate parts between Sweden and Greece; where, however, it is only a summer inhabitant, retiring still farther south at the approach of winter. In the isles of Cyprus and Candy they abound greatly, insomuch as to be an article of commerce. They transport them in vessels filled with vinegar and sweet herbs: the Isle of Cyprus alone collects 1000 or 1200 of these pots every year.

5. M. flava, the yellow wagtail, migrates in the north of England, but in Hampshire continues the whole year. The male is a bird of great beauty: the breast, belly, thighs, and vent feathers, being of a most vivid and lovely yellow: the throat is marked with some large black spots; above the eye is a bright yellow line: beneath that, from the bill cross the eye, is another of a dusky hue; and beneath the eye is a third of the same color: the head and upper part of the body are of an olive green, which brightens in the coverts of the tail; the quill-feathers are dusky; the coverts of the wings olive colored; but the lower rows dusky, tipt with yellowish-white; the two outmost feathers of the tail half white; the others black. The colors of the female are far more obscure than those of the male: it wants also those black spots on the throat. It makes its nest on the ground, in corn fields: the outside is composed of decayed stems of plants and small fibrous roots; the inside is lined with hair: it lays five eggs.

6. M. hippolais, the pettychaps, is somewhat less than a linnet. The bill is short; the upper mandible black, the under bluish; above and below the eye there is a yellowish line; the head, neck, and upper parts, are of a greenish ash-color; the quills and tail are of a mouse color, with greenish edges and black shafts; and the under wing-coverts are yellow; the belly is of a silvery white; the breast darker and tinged with yellow; the legs are bluish, or lead-colored. This species is frequent in several parts of England, and makes a nest of an arched form, composed of dry twigs, with a little moss, and thickly lined with feathers: it is placed on the ground, under a tuft of grass or at the bottom of a bush. The eggs are five in number, white, sprinkled all over with small red spots, most so at the largest end. In Dorsetshire it is known by the name of hay-bird. In Yorkshire it is called the beam-bird, from its nestling under beams in out-buildings.

7. M. lucinia, the nightingale, exceeds in size the hedge sparrow. The bill is brown: the irides are hazel; the head and back pale tawny, dashed with olive; the tail of a deep tawney red; the under parts are pale ash-color, growing white towards the vent; the quills cinereous brown, with the outer margins reddish-brown; the legs cinereous brown. The male and female are very similar. This bird, the most famed of the feathered tribe for the variety, length, and sweetness of its notes, is migratory, and supposed to be an inhabitant of the Asiatic regions during such times as it is not to be found in Europe. It is met with in Siberia, Sweden, Germany, France, Italy, and Greece; but in all those places it is migratory, as in England. Hasselquist speaks of it as being in Palestine; and Fryer ascertains its being found about Chulminor in Persia; it is also spoken of as a bird of China, Kamtschatka, and Japan; at which last place they are much esteemed, and sell dear; as they are also at Aleppo, where they are 'in great abundance kept tame in houses, and let out at a small rate to such as choose it in the city, so that no entertainment is made in the spring without a concert of these birds.' They are not found in America, though several of their birds improperly bear that name; and it is uncertain whether they are found in Africa. These birds visit Britain in the beginning of April, and migrate in August; and during their continuance their range is confined to but a part of the island: they are not found in Scotland, Ireland, or North Wales, nor in any of the northern counties except Yorkshire; and do not migrate so far to the west as Devonshire and Cornwall. They are solitary birds, never uniting even into small flocks: and, in respect to the nests, it is very seldom that two are found near each other. The female builds in some low bush or quickset hedge well covered with foliage, for such only this bird frequents; and lays four or five eggs, of a greenish-brown. The nest is composed of dry leaves on the outside, mixed with grass and fibres, lined with hair or down within, though not always alike. The female alone sits on and hatches the eggs, while the male not far off regales her with his delightful song; but, as soon as the young are hatched, he commonly leaves off singing, and joins with the female in the task of providing for and feeding them. After the young can provide for themselves the old female provides for a second brood, and the song of the male recommences. They have been known to have three broods in a year, and in the hot countries even four. These birds are often brought up from the nest for the sake of their song. They are likewise caught at their first coming over; and, though old birds, yet by management can be made to bear confinement, and to sing equally with those brought up from the nest. 'None but the vilest epicure,' Mr. Latham remarks, 'would think of eating these charming songsters; yet we are told that their flesh is equal to that of the ortolan, and they are fatted in Gascony for the table.' Every schoolboy must have read of Heliogabalus's eating nightingales' tongues; and that famed dish

of the Roman tragedian Æsop, which was composed of those of every singing or talking bird, and is said to have cost about £6843 of our money.

8. M. modularis, the hedge sparrow, a well known bird, has the back and wing-coverts of a dusky hue, edged with reddish-brown; rump of greenish-brown; throat and breast of a dull ash-color; the belly a dirty white; and the legs of a dull flesh-color. This bird frequents hedges in England; where it makes its nest of moss and wool, lining it with hair, and lays four or five eggs of a fine pale blue. With us and the more northern regions it is seen at all seasons; but in France it is migratory, coming in October, and departing northward in spring. The note of this bird would be thought pleasant, did it not remind us of the approach of winter; beginning with the first frosts, and continuing till a little time in spring. Its often repeating the words tit, tit, tit, has occasioned its being called tittling; a name it is known by in many places.

9. M. oenanthe, the wheat-ear, is in length five inches and a half. The top of the head, hind part of the neck, and back, are of a bluish-gray; and over the eye a streak of white; the under parts of the body yellowish-white, changing to pure white at the vent; the breast is tinged with red; and the legs are black. This species is met with in most parts of Europe, even as far as Greenland; and specimens have also been received from the East Indies. It visits England annually in the middle of March, and leaves us in September. It chiefly frequents heaths. The nest is usually placed under the shelter of some turf, clod, stone, or the like, always on the ground, and often in some deserted rabbit-burrow. It is composed of dry grass or moss, mixed with wool, rabbit's fur, &c., or lined with hair and feathers. The eggs are from five to eight in number, of a light blue, with a deeper blue circle at the large end. The young are hatched the middle of May. In some parts of England these birds are in vast plenty. In Sussex they are taken in snares made of horsehair, placed beneath a long turf: being very timid, the motion of a cloud, or the appearance of a hawk, will drive them for shelter into these traps. The numbers annually ensnared in that district alone amount to about 1840 dozen, which usually sell at 6*d.* per dozen. Quantities of these are eaten on the spot by the inhabitants; others are sent up to the London poulterers; and many are potted, being almost as much esteemed in England as the ortolan on the continent. They feed on insects only.

10. M. phoenicurus, the redstart, is somewhat less than the redbreast: the forehead is white; the crown of the head, hind part of the neck, and back, are deep blue gray; the cheeks and throat black; the breast, rump, and sides red, and the belly white; the two middle tail-feathers are brown; the rest red; and the legs black. The female has the top of the head and back cinereous gray; chin white. The same parts are red in this sex as in the male, but not so bright. The wings are brown in both sexes. This bird is migratory; coming hither in spring, and departing about October. It is not so shy as many birds in respect to itself; for it approaches habitations, and often makes its nest in some hole of a wall where numbers of people pass by frequently, if no one meddles with the nest; but the least derangement of the eggs, or even looking at them, especially if the female is disturbed, causes her to forsake the nest altogether. It frequently builds also in some hole of a tree. The nest is composed chiefly of moss, lined with hair and feathers. The eggs are bluish, and four or five in number. This bird frequently wags its tail; but does it sideways, like a dog when he is pleased, and not up and down like the wagtail. It is with difficulty that these birds are kept in a cage; nor will they submit to it by any means if caught old. Their song has no great strength; yet it is agreeable; and they will, if taught young, imitate the note of other birds, and sing by night frequently as well as in the day-time.

11. M. regulus, the gold-crested wren, is a native of Europe, and of the correspondent latitudes of Asia and America. It is the least of all the European birds, weighing only a single drachm. Its length is about four inches and a half; and the wings, when spread out, measure little more than six. On the top of its head is a beautiful orange-colored spot, called its crest; the margins of the crest are yellow, and it ends in a pretty broad black line; the sides of the neck are of a beautiful yellowish-green; the eyes surrounded with a white circle; the neck and back of a dark green, mixed with yellow; the breast of a dirty white; the tail composed of twelve feathers of a brown color, an inch and a half long, but not forked. In America it associates with the tit-mice, running up and down the bark of lofty oaks with them, and collecting its food in their company, as if they were all of one brood. It feeds on insects lodged in their winter dormitories in a torpid state. It sings very melodiously.

12. M. rubecula, the red-breast, is universally known: the upper parts are of a green ash-color; the forehead, throat, neck, and breast, a rufous orange; the belly and vent whitish; the bill, legs, and sides of the body dusky. It is a constant inhabitant of these kingdoms, as well as the whole European continent, from Sweden to Italy. It abounds in Burgundy and Lorraine, where numbers are taken for the table and esteemed excellent food. It builds near the ground, if in a bush; though sometimes it fixes on an out-house, or retired part of some old building. The nest is composed of dried leaves, mixed with hair and moss, and lined with feathers. The eggs are of a dusky white, marked with irregular reddish spots, and from five to seven in number. The young, when full feathered, may be taken for a different bird, being spotted all over. The first rudiments of the red break forth on the breast about the end of August; but it is the end of September before they come to the full color. Insects are their general food; but in defect of these they will eat many other things. No bird is so tame and familiar as this; closely attending the heels of the gardener when he is using his spade, for the sake of worms; and frequently in winter enter-

ing houses where windows are open, when they will pick up the crumbs from the table while the family is at dinner. The people about Bornholm call it tommiliden; in Norway peter ronsmad; the Germans, thomas gierdet; and we, robin red-breast.

13. M. rubetra, the whin-chat, is somewhat bigger than the stone-chatter. The upper parts are blackish, edged with rufous; from the bill arises a streak of white, which passes over the eye on each side, almost to the hind head; beneath this the cheeks are blackish; the chin is white; the rest of the under parts rufous white; on the wing, near the shoulder, is a transverse white mark, and another smaller near the bastard wing, on the outer edge; the legs are black. The female is much paler, and the spots on the wings, and the white trace over the eye, are far less conspicuous. This is not uncommon in Britain, and is seen in summer along with the stone-chatter on the heaths, where it breeds, making the nest much after the manner of that bird. It lays five dirty white eggs, dotted with black. This species is common also in France, Italy, Germany, and the temperate parts of Russia; but it is less common than the stone-chatter there, as well as in England. Its food is chiefly insects.

14. M. rubicola, the stone-chatter, is about four inches and three quarters. The male has the upper parts of the body mixed blackish and pale rufous; on each side the neck there is a transverse streak of white; the breast is of a reddish yellow; the belly paler; and the legs are black. In the female the colors are much less vivid. This species inhabits dry places, as heaths and commons; living on insects of all kinds. It makes its nest early, at the foot of some low bush or under a stone; and has five or six eggs of a bluish green, sparingly marked with faint rufous spots. It is so very crafty as not to betray the place of the nest, never alighting but at some distance, and creeping on the ground to it by the greatest stealth. It is a restless bird, incessantly flying from bush to bush; and seems to have received its English name from its note, resembling the clicking of two stones together.

15. M. salicaria, the sedge bird, is about the size of the black-cap, but more slender. The head is brown, marked with dusky streaks; the cheeks are brown, with a white line over each eye, and a black one above it; the upper parts of the neck and back are of a reddish brown, and the wing-coverts and quills dusky; the under parts are white; but the breast and belly have a yellow tinge; the tail is brown and much rounded; and the legs are dusky. This species is common in England, and frequents places where reeds and sedges grow, among which it is said to make its nest, though it sometimes forms it on the lowest branches of trees. The nest is composed of straw and dried fibres of plants, lined with hair; and the eggs, five in number, of a dirty white, marbled with brown. It imitates the notes of the swallow, sky-lark, house-sparrow, and other birds, in a pleasing but hurrying manner, and sings all night.

16. M. sialis, the blue bird, is a native of most parts of North America, and is about the bigness of a sparrow. The eyes are large, the head and upper part of the body, tail, and wings, are of a bright blue, excepting that the ends of the feathers are brown. The throat and breast are of a dirty red. The belly is white. It flies swiftly, having very long wings; so that the hawk generally pursues it in vain. It makes its nest in holes of trees; resembles our robin red-breast in its disposition, and feeds only on insects.

17. M. sutoria, the tailor-bird, is a native of the East Indies. It is remarkable for the art with which it makes its nest, to secure itself and its young in the most perfect manner possible against all danger from voracious animals. It picks up a dead leaf, and sews it to the side of a living one; its slender bill is the needle, and its thread is formed of some fine fibres; the lining is composed of feathers, gossamer, and down. The color of the bird is light yellow; its length three inches; and its weight only three-sixteenths of an ounce; so that the materials of the nest, and its own size, are not likely to draw down a habitation depending on so slight a tenure.

18. M. troglodytes, the wren, is a very small species, in length only three inches and three quarters, though some have measured four inches. The bill is very slender and of a dusky brown color; the head, neck, and back, are of a reddish-brown; and over each eye a pale reddish-white streak; the under parts, as far as the breast, are of this last color; the rest more inclined to brown, crossed with brown lines; the legs are pale brown. It generally carries the tail erect. The nest is almost oval, and has only one small entrance; it is chiefly composed of moss, well lined with feathers. In this the female lays from ten to sixteen or eighteen eggs, which are almost white, with reddish markings at the large end. She builds twice a-year, in April and June. The nest is often found in some corner of an out-house, stack of wood, hole in a wall, or such like, if near habitations; but in the woods, often in a bush on or near the ground, or in a stump of a tree. This minute bird is found throughout Europe; and in England it defies the severest winters. Its song is much esteemed, being, though short, a pleasing warble, and much louder than could be expected from its size; it continues throughout the year.

MOTAPA, or Monopotapa (though Mono is here only a general name for kingdom), a country of Eastern Africa, called also Benomotapa and Mocaranga. Its limits nominally include all the country in the interior from Mosambique southward nearly to the Cape of Good Hope. This territory, however, is divided into a great number of independent states. In the interior it has Chicova, Manica, and Chicanga; but is altogether but little known. The capital is Zimbaoe, near the head of the river of Sofala. The Portuguese have made repeated attempts to penetrate this country, to possess themselves of the gold mines which lie in the interior. In the sixteenth century Nunez Bareto undertook a grand expedition, when the native Quiteve, abandoning his capital, merely carried on a harassing warfare;

and Barreto penetrated to the gold mines, but was unable to form any establishment there. A treaty was at last concluded, and the Quiteve agreed, in consideration of a tribute of 200 pieces of cloth, to allow the Portuguese free passage through his dominions. They have been obliged, however, to content themselves with a single chain of posts to the mines on the Zambaza.

MOTE, *n. s.* Sax. mot; Swed. *mot;* Italian *miot.* A small particle of any kind; any thing proverbially little.

But what seest thou a little *mote* in the yghe of thi brother, and seest not a beem in thin owne yghe. *Wiclif. Mat.* 7.

For now the grete charitee and prayeres
Of limitours and other holy freres,
That serchen every land and every streme,
As thikke as *motes* in the sonne beme,
This makith that ther ben no Faeries.
Chaucer. Cant. Tales.

You found his *mote*, the king your *mote* did see;
But I a beam do find in each of three. *Shakspeare.*

The little *motes* in the sun do ever stir, though there be no wind. *Bacon's Natural History.*

MOTE for might, or must. Sax. mot; Belgic *moet.* Obsolete.

Most ugly shapes,
Such as dame Nature self *mote* fear to see,
Or shame, that ever should so foul defects
From her most cunning hand escaped be.
Faerie Queene.

MOTH, *n. s.* } Sax. moð: Teut. *motte;*
MOTHY, *adj.* } Swed. *mætt,* A small winged insect: full of moths.

He as a rotten thing consumeth as a garment that is *moth* eaten. *Job* xiii. 28.

Thise wormes, ne thise *mothes*, ne thise mites,
Upon my pareille frett him moer a del;
And wost thy why? for they were used wel.
Chaucer. Cant. Tales.

All the yarn Penelope spun in Ulysses's absence, did but fill Ithaca full of *moths.* *Shakspeare.*

Every soldier in the wars should do as every sick man in his bed, wash every *moth* out of his conscie ce. *Shakspeare.*

His horse hipped with an old *mothy* saddle, the stirrups of no kindred. *Id.*

Let *moths* through pages eat their way,
Your wars, your loves, your praises be forgot,
And make of all an universal blot.
Dryden's Juvenal.

So man, the *moth*, is not afraid, it seems,
To span Omnipotence, and measure might,
That knows no measure. *Cowper.*

MOTH, in zoology. See PHALÆNA.

MOTHE GUYON (Joanna Mary Bouriers de la), a French lady, memorable for her writings and sufferings in the cause of Quietism. She was descended from a noble family, and born at Montargis in 1648. She tried to take the veil before she was of age; but her parents obliged her to marry a gentleman to whom they had promised her. She was a widow at twenty-eight; when, distinguishing herself as a Quietist, she was confined for eight months. She was discharged; but in 1695 was involved in the persecution of the archbishop of Cambray, and thrown into the bastile; but, nothing being made out against her, she once more obtained her liberty in 1700; when she retired to Blois, and lived in a manner which showed her persecutions were unmerited. She wrote 1. Cantiques Spirituels, ou Emblemes sur l'Amour divin; 5 vols. 2. Reflexions sur la Vie Interieure. 3. Discourses Chretiennes; 2 vols. 4. Her own Life; 3 vols. 5. Opuscles. 6. Letters, &c. She died June 9th, 1717.

MOTHE LE VAYER (Francis de la), counsellor of state, was born at Paris in 1588. He became so distinguished by his writings that he was considered as one of the first members of the French Academy, into which he was admitted in 1639. He was esteemed by cardinals Richelieu and Mazarine, who bestowed splendid titles and honorable posts upon him. He was appointed preceptor to the duke of Anjou. He was extremely afflicted at the loss of his only son, who died when about thirty-five years of age. He married again, although then above seventy-five years old, and died in 1672, aged eighty-four. His works, collected by his son, were dedicated to cardinal Mazarine in 1653; but the best edition of them was that of Paris, 1669, dedicated to Louis XIV., and consisting of 15 vols. in 12mo. His treatises concerning the education of the dauphin, and of pagan philosophy, are most esteemed.

MOTH'ER, *n. s., adj.,* & *v. n.* }
MOTH'ERHOOD, }
MOTH'ERLESS, *adj.* } Sax. moðeɼ; Goth., Danish, and Swed. *moder;* Belgic, *moeder;* Teut. *mutter;* Ital. and Span. *madre;* Fr. *mere;* Lat. *mater;* Gr. μητηρ, We add, to show the great similarity of this word in all the considerable languages of the earth, Pers. *madur;* Sans. *mata, matri;* Hind. *mattara.* A woman who has borne a child: hence that which has produced or preceded any thing; a familiar term of address to a woman; a religious term of address; also hysterical passion, as supposed to be peculiar to women: as an adjective, it signifies native; had at the birth. Motherhood is the office or character of a mother. Motherless, destitute of a mother. Motherly, maternal; belonging to, or becoming a mother; matronly; in the manner of a mother.

Therfore whanne Jhesus hadde seien his *moder* and the disciple stondynge whom he louyde, he seith to his *modir*, womman lo thi sonne, afterward he seith to the disciple, lo thi *modir*, and fro that our the disciple took hir into his *modir*. *Wiclif. Jon* 19.

I am come to set at variance the daughter-in-law against the *mother*-in-law. *Matt.* x. 35.

His mortal blade
In ivory sheath, ycarv'd with curious slights,
Whose hilt was burnished gold, and handle strong
Of *mother-pearl.* *Faerie Queene.*

They can owe no less than child-like obedience to her that hath more than *motherly* power. *Hooker.*

For whatsoever *mother* wit or art
Could work, he put in proof.
Hubbard's Tale.

Let thy *mother* rather feel thy pride, than fear
Thy dangerous stoutness. *Shakspeare. Coriolanus.*

I had not so much of man in me
But all my *mother* came into mine eyes,
And gave me up to tears.
Shakspeare. Henry V.

Alas, poor country! It cannot
Be called our *mother*, but our grave.
Shakspeare.

Where did you study all this goodly speech?
It is extempore, from my *mother* wit. *Ia.*

A sling for a *mother*, a bow for a boy,
A whip for a carter. *Tusser's Husbandry.*

They termed her the great *mother*, for her *motherly* care in cherishing her brethren whilst young. *Raleigh.*

Thou shalt see the blessed *mother*-maid
Exalted more for being good,
Than for her interest of *motherhood*. *Donne.*

The air doth not *motherly* sit on the earth,
To hatch her seasons, and give all things birth. *Id.*

They were of onyx, sometimes of *mother* of pearl. *Hakewill.*

Within her breast though calm, within her breast though pure,
Motherly cares and fears got head, and raised
Some troubled thoughts. *Milton's Paradise Regained.*

This stopping of the stomach might be the *mother*; forasmuch as many were troubled with *mother* fits, although few returned to have died of them. *Graunt's Bills.*

I might shew you my children, whom the rigour of your justice would make complete orphans, being already *motherless*. *Waller's Speech to the House of Commons.*

Boccace lived in the same age with Chaucer, had the same genius, and followed the same studies; both writ novels, and each of them cultivated his *mother* tongue. *Dryden.*

The strongest branch leave for a standard, cutting off the rest close to the body of the *mother* plant. *Mortimer's Husbandry.*

When I see the *motherly* airs of my little daughters, when playing with their little puppets, I cannot but flatter myself that their husbands and children will be happy in the possession of such wives and *mothers*. *Addison's Spectator.*

The good of *mother* church, as well as that of civil society, renders a judicial practice necessary. *Ayliffe's Parergon.*

The resemblance of the constitution and diet of the inhabitants to those of their *mother* country, occasions a great affinity in the popular diseases. *Arbuthnot on Air.*

My concern for the three poor *motherless* children obliges me to give you this advice. *Arbuthnot.*

Though she was a truly good woman, and had a sincere *motherly* love for her son John, yet there wanted not those who endeavoured to create a misunderstanding between them. *Id.*

How gladly would the man recall to life
The boy's neglected sire! a *mother* too,
That softer friend, perhaps more gladly still,
Might he demand them at the gates of death. *Cowper.*

These might have been her destiny, but no,
Our hearts deny it: and so young, so fair,
Good without effort, great without a foe,
But now a bride and *mother*. *Byron.*

MOTHER, *v. n.* & *n. s.* Belg. *moeder*, mud. Lees; concretion; to gather concretion.

If the body be liquid, and not apt to putrefy totally, it will cast up a *mother*, as the *mothers* of distilled waters. *Bacon.*

Potted fowl, and fish come in so fast,
That ere the first is out the second stinks,
And mouldy *mother* gathers on the brinks. *Dryden.*

They oint their naked limbs with *mothered* oil. *Id.*

MO'TION, *n. s.* } Fr. *motion*; Ital. *mozioni*;
MO'TIONLESS. } Lat. *motio*. The act of moving; movement made; change of place, or posture; agitation; intestine action; military march; applied metaphorically to movements of the mind, and hence to proposals made, or measures propounded; in obsolete language, a puppet-show. Motionless, devoid of motion.

What would you with me?
—Your father and my uncle have made *motions*; if it be my luck, so; if not, happy man be his dole. *Shakspeare.*

If our queen and this young prince agree,
I'll join my younger daughter, and my joy,
To him forthwith, in holy wedlock bands.
—Yes, I agree, and thank you for your *motion*. *Id.*

He compassed a *motion* of the prodigal son, and married a tinker's wife, within a mile where my land lies. *Id.*

Whether that *motion*, vitality and operation, were by incubation, or how else, the manner is only known to God. *Raleigh.*

Carnality within raises all the combustion without: this is the great wheel to which the clock owes its *motion*. *Decay of Piety.*

A Christian's *motion*, after he is regenerate, is made natural to Godward; and therefore, the nearer he comes to heaven, the more zealous he is. *Bp. Hall.*

Immediate are the acts of God, more swift
Than time or *motion*. *Milton.*

Speaking or mute, all comeliness and grace
Attend thee, and each word, each *motion* form. *Id.*

By quick instinctive *motion* up I sprung. *Id.*

See the guards
By me encamped on yonder hill, expect
Their *motion*. *Id.*

We cannot free the lady that sits here,
In stony fetters fixed, and *motionless*. *Id.*

Virtue too, as well as vice, is clad
In flesh and blood so well, that Plato had
Beheld, what his high fancy once embraced,
Virtue with colours, speech and *motion* graced. *Waller.*

Love awakes the sleepy vigour of the soul,
And, brushing o'er, adds *motion* to the pool. *Dryden.*

Ha! Do I dream? Is this my hoped success?
I grow a statue, stiff and *motionless*. *Id.*

Let a good man obey every good *motion* rising in his heart, knowing that every such *motion* proceeds from God. *South.*

The soul
O'er ministerial members does preside,
To all their various provinces divide,
Each member move, and every *motion* guide. *Blackmore.*

Should our globe have had a greater share
Of this strong force, by which the parts cohere;
Things had been bound by such a powerful chain,
That all would fixed and *motionless* remain. *Id.*

Cease, cease, thou foaming ocean,
For what's thy troubled *motion*
To that within my breast? *Gay.*

In general I must take notice that the nature of our constitution seems to be very much mistaken by the gentlemen who have spoken in favour of this *motion*. *Sir R. Walpole.*

Virtue seems to be nothing more than a *motion* consonant to the system of things; were a planet to fly from its orbit, it would represent a vicious man. *Shenstone.*

All that have *motion*, life, and breath
Proclaim your Maker blest! *Watts.*

Motion, Animal, that which is performed by animals at the command of the mind or will. Though all the motions of animals, whether voluntary or involuntary, are performed by means of the muscles and nerves, yet neither these nor the subtle fluid which resides in them are to be accounted the ultimate sources of animal motion. They depend entirely upon the will for those motions which are properly to be accounted animal. All the involuntary motions, such as those of the blood, the heart, muscles, organs subservient to respiration and digestion, &c., are to be classed with those of vegetables: for, though no vegetables have them in such perfection as animals, there are yet traces of them to be found evidently among vegetables, and that so remarkably that some have imagined the animal and vegetable kingdoms to approach each other so nearly that they could scarcely be distinguished by a philosophic eye. Though all animals are endowed with a power of voluntary motion, yet there is a very great variety in the degrees of that power; to determine which no certain rules can be assigned; neither can we, from the situation and manner of life of animals, derive any probable reason why the motion of one should differ so much from that of another. This difference does not arise from their size, their ferocity, their timidity, nor any other property that we can imagine. The elephant, though the strongest land animal, is by no means the slowest in its motions; the horse is much swifter than the bull, though there is not much difference in their size; a greyhound is much swifter than a wild cat, though the former is much larger, and though both live in the same manner, viz. by hunting. Among insects the same unaccountable diversity is observable. This very remarkable circumstance seems not even to depend on the range which animals are obliged to take in order to procure food for themselves. Of all animals the shell-fish move the slowest, insomuch that some have supposed them to be entirely destitute of loco-motive powers; and muscles particularly are denied to have any faculty of this kind. Every one knows that these animals can open and shut their shells at pleasure; and it cannot escape observation, that in every muscle there is a fleshy protuberance of a much redder color than the rest. This has been thought to be a tongue or proboscis, by which the animal takes in its food; but is in reality the instrument of its motion from place to place. This protuberance is divided into two lobes, which perform the office of feet. When the river muscle is inclined to remove from its station, it opens its shell, thrusts out this protuberance, and digs a furrow in the sand: and into this furrow, by the action of the same protuberance, the shell is made to fall in a vertical position. It is recovered out of this into the former horizontal one, by pushing back the sand with the same tentacula, lengthens the furrow, and thus the animal continues its journey by a continual turning topsy turvy. Marine muscles perform their motions in the same manner, and by similar instruments. In general they are firmly attached to rocks or small stones by threads, about two inches long, which are spun from a glutinous substance in the protuberance already mentioned. Other animals which dwell in bivalved shells perform their motions by a kind of leg or foot; which, however, they can alter into almost any figure they please. By means of this leg they can not only sink into the mud, or rise out of it at pleasure, but can even leap from the place where they are; and this can be done by the limpet, which people are apt to imagine one of the most sluggish animals in nature. When this creature is about to make a spring, it sets its shell on edge, as if to diminish friction; then, stretching out the leg as far as possible, it makes it embrace a portion of the shell, and by a sudden movement, similar to that of a spring let loose, it strikes the earth with its leg, and leaps to a considerable distance. The spout, or razor fish, is said to be incapable of moving forward horizontally on the surface; but it digs a hole sometimes two feet deep in the sand, in which it can ascend or descend at pleasure. The leg, by which it performs all its movements, is fleshy, cylindrical, and pretty long; and the animal can at pleasure make it assume the form of a ball. When lying on the surface of the sand, and about to sink into it, the leg is extended from the inferior end of the shell, and makes the extremity of it take on the form of a shovel, sharp on each side, and terminating in a point. With this instrument the animal makes a hole in the sand; after which it advances the leg still farther into it, makes it assume the form of a hook, and with this, as a fulcrum, it obliges the shell to descend into the hole. This operation is continued until the whole shell is covered; and, when the animal wishes to regain the surface, it makes the extremity of the leg to assume the form of a ball, and makes an effort to extend it. The ball, however, prevents any farther descent, and the reaction of the muscular effort raises up the whole shell, which operation is continued until it reaches the surface; and it is surprising with what facility these motions are accomplished by an animal seemingly so little qualified to move at all. Another particularity in this fish is, that, though it lives among salt water, it abhors salt so much that when a little is thrown into its hole it instantly leaves it. But it is still more remarkable, that if you once take hold of the spout-fish, and then allow it to retire into its hole, it cannot then be driven out by salt; though, unless it be taken hold of by the hand, the application of salt will make it come to the surface as often as you please. See Solen. All other shell-fish, even those apparently the most sluggish and destitute of any apparatus for motion, are found to be furnished with such instruments as enable them to perform all those movements for which they have any occasion. Thus the scallop, a well known animal, inhabiting a bivalved shell, can both swim upon the surface of water and move upon land. When it happens to be deserted by the tide, it opens its shell to the full extent, and, shutting it again with a sudden jerk, the reaction of the ground gives such an impulse to the whole, that it sometimes springs five or six inches from the ground; and, by a continued repetition of this action, it gradually tumbles forward until it regains the

water. Its method of sailing is still more curious. Having attained the surface of the water, by means unknown to us, it opens the shell, and puts one half above water, the other with the body of the animal in it remaining below. Great numbers of them are thus frequently seen sailing in company, with their shells sticking up above water, when the weather is fine, and the wind acting upon them as sails; but on the least alarm they instantly shut their shells, and all sink to the bottom together. See PECTEN. The oyster has generally been supposed one of the most sluggish animals in nature, and totally incapable of voluntary motion; but, from the researches of the abbé Dicquemarre, this opinion seems to be erroneous. The oyster, like many other bivalved shell-fish, has a power of squirting water out from its body; and this property may easily be observed by putting some of them into a plate with as much sea-water as will cover them. The water is ejected with so much force as not only to repel the approach of ordinary enemies, but to move the whole animal backwards or sideways in a direction contrary to that in which the water was ejected. It has been also supposed that oysters are destitute of sensation; but M. Dicquemarre has shown, that they not only possess sensation, but that they are capable of deriving knowledge from experience. When removed from such places as are entirely covered with the sea, when destitute of experience, they open their shells and die in a few days; but if they happen to escape this danger, and the water covers them again, they will not open their shells again, but keep them shut, as if warned by experience to avoid a danger similar to what they formerly underwent. See OSTREA. The motions of the sea-urchin are perhaps more curious and complicated than those of any other animal. It inhabits a beautiful multivalved shell, divided into triangular compartments, and covered with great numbers of prickles; from which last circumstance it receives the name of sea-urchin, or sea hedge-hog. The triangles are separated from one another by regular belts, perforated by a great number of holes, from every one of which issues a fleshy horn similar to that of a snail, and capable of moving in a similar manner. The principal use of these horns seems to be to fix the animal to rocks or stones, though it likewise makes use of them in progressive motion. By means of these horns and prickles it is enabled to walk, either on its back or its belly; but it most commonly makes use of those which are near the mouth. Occasionally it has a progressive motion by turning round like a wheel. 'Thus,' says Mr. Smellie, in his Philosophy of Natural History, 'the sea-urchin furnishes an example of an animal employing many thousand limbs in its various movements. The reader may try to conceive the number of muscles, fibres, and other apparatus which are requisite to the progressive motion of this little animal. Some animals move backwards, apparently with the same facility that they do forwards, and that by means of the same instruments which move them forward. The common house fly exhibits an instance of this, and frequently employs this retrograde motion in its ordinary courses; though we cannot know the reason of its employing such an extraordinary method. Another remarkable instance is given by Mr. Smellie in the mason-bee.

MOTION, PERPETUAL, in mechanics, a motion which is supplied and renewed from itself, without the intervention of any external cause; or an uninterrupted communication of the same degree of motion from one part of matter to another, in a circle or other curve returning into itself, so that the same momentum still returns undiminished upon the first mover. The celebrated problem of a perpetual motion consists in the inventing a machine which has the principle of its motion within itself. To find a perpetual motion, or to construct an engine, &c., which shall have such a motion, is a famous problem that has employed the mathematicians for 2000 years.

MOTION, VEGETABLE. Though vegetables have not the power of moving from one place to another like animals, they are nevertheless capable of moving their different parts in such a manner as would lead us to suspect that they are actuated by a sort of instinct. Hence many have been induced to suppose that the animal and vegetable kingdoms are in a manner indistinguishable from one another; and that the highest degree of vegetable life can hardly be known from the lowest degree of animal life. The essential and insuperable distinction, however, between the two is the faculty of sensation, and loco-motion in consequence of it. Were it not, indeed, for the manifestation of sense by moving from one place to another, we should not be able to tell whether vegetables were possessed of sensation or not; but, whatever motions they may be possessed of, it is certain that no vegetable has the faculty of moving from one place to another. Some have endeavoured to distinguish the two kingdoms by the digestion of food; alleging that plants have no proper organs, such as a stomach, &c., for taking in and digesting their aliment. But to this it has been replied, that the whole body of a vegetable is a stomach, and absorbs its food at every pore. This, however, seems not to be a sufficient answer. All animals take in their food at intervals; and there is not a single instance of one which eats perpetually. The food is also taken into the body of the animal, and application of the parts made by means of the internal organisation of the viscus; but in vegetables, their whole bodies are immersed in their food, and absorb it by the surface, as animal bodies will sometimes absorb liquids when put into them. The roots of a tree, indeed, will change their direction when they meet with a stone, and will turn from barren into fertile ground; but this is evidently mere mechanism, without any proof of will or sensation; for the nourishment of the root comes not from the stone, but from the earth around it; and the increase in size is not owing to any expansion of the matter which the root already contains, but to the opposition of new matter; whence the increase of size must always take place in the direction whence the nourishment proceeds. On this principle also may we explain the reason why the roots of a

tree, after having arrived at the edge of a ditch, instead of shooting out into the air, will creep down one side, along the bottom and up the other. In their movements, vegetables discover nothing like sensation or design. They will, indeed, uniformly bend toward light or toward water; but in the one case we must attribute the phenomenon to the action of the light and air upon them; and, in the latter, the property seems to be the same with what in other cases we call attraction. Thus, if a root be uncovered, and a wet sponge placed near it in a direction different from that in which the root was proceeding, it will soon alter its position, and turn towards the sponge; and thus we may vary the direction of the root as often as we please. The efforts of a plant to turn from darkness or shade into sunshine are very remarkable; as, to accomplish this, not only the leaves will be inclined, but even the stems and branches twisted. When a wet sponge is held under the leaves of a tree, they bend down in order to touch it. If a vessel of water be put within six inches of a growing cucumber, in less than twenty-four hours the latter will alter its direction: the branches will bend towards the water, and never alter their course until they come in contact with it. The most remarkable instance of this kind of motion, however, is, that when a pole is brought near a vine, the latter will turn towards it, and never cease extending its branches till it lays hold of the support. The motions of the sensitive plant, and others of the same kind, have been considered as very wonderful; but it is doubtful if any of them be really more so than that of the vine. None of those show any kind of propensity to move without an actual touch. A very slight one, indeed, makes the sensitive plant contract, and the whole branch, together with the leaves, bend down towards the earth. See Mimosa. This is so similar to some phenomena of electricity, that few will hesitate to ascribe both to the same cause. Even the motions of the hedysarum gyrans, which at first sight seem so much more surprising than those of the sensitive plant, may be explained upon the same principle. See Hedysarum. There is a specimen of this plant in the botanic garden at Edinburgh. It is a native of the East Indies, and its motions are occasioned by the sun-beams. The leaves are the only moveable parts. They are supported by long foot-stalks; and, when the sun shines upon them, they move briskly in every direction. Their most usual motion is upward and downward; but often they turn almost quite round, and then the foot-stalks are evidently twisted. These motions continue only while the light and heat of the sun continue, ceasing at night, or when the weather becomes cloudy and cold. The American plant called Dionæa muscipula, or Venus's fly-trap, is another example of very wonderful mechanism in vegetables, though even this does not argue any degree of sensation in this plant more than in others. The leaves of the dionæa are jointed, and furnished with two rows of prickles. A number of small glands upon the surface secrete a sweet juice, which entices flies to come and settle upon it; but, the moment these insects touch the fatal spot, the leaves fold up, and squeeze them to death between the prickles. The leaves fold up in the same manner when the plant is touched with a straw or pin. See Dionæa. The folding up of the leaves of certain plants in the absence of the sun's light, called their sleep, affords another very curious instance of vegetable motion. Almost all vegetables, indeed, undergo such a remarkable change in the night, that it is difficult to know exactly how many kinds do really sleep. They fold up their leaves in many different ways; but all agree in disposing of them in such a manner as to afford the best protection to the young stems, flower-buds or fruit. The leaves of the tamarind tree contract round the young fruit, to protect it from nocturnal cold; and those of senna, glycina, and many other papilionaceous plants, dispose of their leaves in the same manner. The leaves of the chickweed, asclepias, atriplex, &c., are disposed in opposite pairs. In the night-time they rise perpendicularly, and join so close at the top that the flowers are concealed by them. In like manner do the leaves protect the flowers of the sida, or althæa theophrasti, the ayenia, and œnothera, the solanum, and the Egyptian vetch. All these are erected during the night; but those of the white lupine, in time of sleep, hang down. The flowers of plants also have motions peculiar to themselves. Many of them during the night are enclosed in their calyxes. Some, particularly those of the German spurge, geranium striatum, and common Whitlow grass, when asleep, bend towards the earth; by which means the noxious effects of rain or dew are prevented. All these motions have been commonly ascribed to the sun's rays; and Mr. Smellie informs us that, in some of the examples above mentioned, the effects were evidently to be ascribed to heat; but plants kept in a hot-house, where the temperature of the day and night are alike, contract their leaves, and sleep in the same manner as if they were exposed to the open air: 'whence it appears,' says he, 'that the sleep of plants is owing rather to a peculiar law, than to a quicker or slower motion of the juices.' He suspects, therefore, that as the sleep of plants is not owing to the mere absence of heat, it may be occasioned by the want of light; and to ascertain this he proposes an experiment of throwing upon them a strong artificial light. On this, however, we must remark, that the throwing of artificial light upon plants cannot be attended with the same effects as that of the light of the sun, unless the former were as strong as the latter, which is impossible; and, even though we could procure an artificial light as strong as that of the sun, a difference might be occasioned by the different direction of the rays, those of the sun being very nearly parallel, while the rays of all artificial light diverge very greatly. If, therefore, we are to make an experiment of this kind, the rays should be rendered parallel by means of a burning mirror. Here again we should be involved in a difficulty; for the rays of the sun proceed all in one direction; but as of necessity we must employ different mirrors in our experiment, the light must fall upon the plant in different direc-

tions, so that we could not reasonably expect the same result as when the plants are directly exposed to the rays of the sun. The motion of plants not being deducible from sensation, as in animals, must be ascribed to that property called irritability; and this property is possessed insensibly by the parts of animals in a greater degree than even by the most irritable vegetable. The muscular fibres will contract on the application of any stimulating substance, even after they are detatched from the body to which they belonged. The heart of a frog will continue to beat when pricked with a pin for several hours after it is taken out of the body. The heart of a viper or of a turtle beats distinctly from twenty to thirty hours after the death of these animals. When the intestines of a dog, or any other quadruped, are suddenly cut into different portions, all of them crawl about like worms, and contract upon the slightest touch. The heart, intestines, and diaphragm, are the most irritable parts of animal bodies; and, to discover whether this quality resides in all plants, experiments should be made chiefly on leaves, flowers, buds, and the tender fibres of the roots. The motions of plants are universally ascribed by our author to irritability. The term, however, requires an explanation; and to give this in an intelligible manner, requires some attention.

MO'TIVE, *adj.* & *n. s.* Lat. *motivus;* Fr. *motif;* Ital. *motive.* Causing motion; having the quality or capacity of motion: hence that which determines the mind, or excites to action; a mover. See the instances from Shakspeare.

Shall every *motive* argument used in such kind of conferences be made a rule for others still to conclude the like by, concerning all things of like nature, when as probable inducements may lead them to the contrary? *Hooker.*

Hereof we have no commandment, either in nature or scripture, which doth exact them at our hands; yet those *motives* there are in both, which draw most effectually our minds unto them. *Id.*

Why in that rawness left you wife and children,
Those precious *motives*, those strong knots of love,
Without leave-taking? *Shakspeare. Macbeth.*

Heaven brought me up to be my daughter's dower;
As it hath fated her to be my *motive*
And helper to a husband. *Shakspeare.*

Her wanton spirits look out
At every joint and *motive* of her body. *Id.*

The nerves serve for the conveyance of the *motive* faculty from the brain; the ligatures for the strengthening of them, that they may not flag in motion. *Wilkins.*

The *motive* for continuing in the same state is only the present satisfaction in it; the *motive* to change is always some uneasiness. *Locke.*

What can be a stronger *motive* to a firm trust in our Maker, than the giving us his Son to suffer for us? *Addison.*

We ask you whence does *motive* vigour flow? *Blackmore.*

That fancy is easily disproved from the *motive* power of souls embodied, and the gradual increase of men and animals. *Bentley.*

Prudent men lock up their *motives;* letting familiars have a key to their heart as to their garden. *Shenstone.*

Let passion do what nobler *motive* should;
Let love and emulation rise in aid
To reason, and persuade thee to be—blessed. *Young.*

MOT'LEY, *adj.* By some writers supposed to be corrupted from medley; or, perhaps, says Johnson, from mothlike, colored, spotted, or variegated like a moth. Mingled; of various colors.

They that come to see a fellow
In a long *motley* coat, guarded with yellow,
Will be deceived. *Shakspeare. Henry VIII.*

Expence and after-thought, and idle care,
And doubts of *motley* hue, and dark despair. *Dryden.*

An author might as well think of weaving the adventures of Æneas and Hudibras into one poem, as of writing such a *motley* piece of mirth and sorrow. *Addison.*

Traulus, of amphibious breed,
Motley fruit of mungrel seed;
By the dam from lordlings sprung,
By the sire exhaled from dung. *Swift.*

MOTOR, *n. s.* Fr. *moteur;* Lat. *movea.* A mover: a word altogether redundant.

Those bodies being of a congenerous nature, do readily receive the impressions of their *motor;* and, if not fettered by their gravity, conform themselves to situations, wherein they best unite unto their animator. *Browne's Vulgar Errors.*

The bones, were they dry, could not, without great difficulty, yield to the plucks and attractions of the *motory* muscles. *Ray on the Creation.*

MOTRIL, a town of the south of Spain, in Granada, with a harbour on the Mediterranean. It has 4500 inhabitants, who trade in wine, linen, and chestnuts. The environs produce sugar; but the cultivation is of late much limited. Four miles east of Malaga.

MOTTE (Anthony Houdart de la), an ingenious Frenchman, greatly distinguished by his writings in prose and verse, and by his literary contests with many eminent persons, was born at Paris in 1672. His literary paradoxes, his singular systems, in all branches of polite learning, and above all his judgment upon the ancients, raised him up formidable adversaries. Racine, Boileau, Rousseau, Madam Dacier, &c., avenged antiquity on an author who, with more wit than learning, assumed a dictatorial authority in the belles lettres. He became blind in the latter years of his life, and died in 1731. He was beloved for the urbanity of his temper. Once in a crowd he chanced to tread on the foot of a young man, who immediately struck him. 'Sir,' said he, 'you will be sorry for what you have done—I am blind.' He wrote many poems, tragedies, comedies, pastorals, and fables; besides a ast variety of discourses, critical and academical, in prose. A complete edition of all his works was published in 11 vols. 8vo., in 1754.

MOTTE ISLE, an island in lake Champlain, at the entrance of Richlieu River, near the tongue of land which forms Missiqui Bay. It is about eight miles in length and two in breadth, and is distant two miles west of North Hero Island. It constitutes a township of its own name in Franklin county, Vermont.

MOTTE (St. Jean de la), a town in the central

part of France, department of the Sarthe, with 1800 inhabitants.

MOTTO, *n. s.* Ital. *motto;* Fr. *mot.* A sentence or word added to an heraldic device, or prefixed to any thing written.

Men in a party have liberty only for their *motto;* in reality they are greater slaves than any body else would care to make them. *Saville.*

It may be said to be the *motto* of human nature, rather to suffer than to die. *L'Estrange.*

We ought to be meek-spirited, till we are assured of the honesty of our ancestors; for covetousness and circumvention make no good *motto* for a coat. *Collier.*

It was the *motto* of a bishop eminent for his piety and good works, in king Charles the second's reign, Inservi Deo et lætare, Serve God and be chearful. *Addison's Freeholder.*

MOTTO, in heraldry, a short sentence or phrase, carried in a scroll, generally under, but sometimes over the arms; sometimes alluding to the bearing, sometimes to the name of the bearer, and sometimes containing whatever pleases the fancy of the deviser. See HERALDRY.

MOUDON, or MILDEN, a town in the canton of Vaud, Switzerland, on the river Broye. Part of it is level: but the rest stands on the declivity of a steep hill, from which a rivulet descends through the lower town under arches, and flows with great rapidity into the Broye. The town contains 2400 inhabitants, and is of great antiquity, being mentioned under the name of Moledunum by Antonine. It is thought to have been one of the towns which the Helvetii burned in the time of Cæsar. Thirteen miles N.N.E. of Lausanne.

MOVE, *v. a.* & *n. s.*
MOVE'ABLE, *adj.* & *n. s.*
MOVE'ABLY, *adv.*
MOVE'LESS, *adj.*
MOVE'MENT, *n. s.*
MO'VENT, *adj.* & *n. s.*
MOV'ER, *n. s.*
MOV'ING, *part. adj.*
MOV'INGLY, *adv.*

Fr. *mouvoir;* Lat. *moveo.* To put in motion; impel; lead on; drive; excite to turbulence or commotion; conduct into orderly motion: hence (meta.) to give mental impulse to; propose; recommend; persuade; prevail on or over; affect the passions or feelings; touch pathetically; make angry: as a neuter verb, to be in motion; proceed from place to place; change posture; have vital action; walk: as a substantive, the act of moving; motion made, as at chess. Moveable is unfixed; capable of being moved; that which may be moved. Moveably, so as it may be moved. Moveless, incapable of motion; unmoved. Movement, motion made; manner of moving. Movent, as an adjective, causing motion: movent and mover, that which moves another thing or person; mover is also he, or that, which moves; and he who proposes any thing. Moving, affecting; pathetic; influential on the passions. Movingly, pathetically; passionately.

And whanne gret flood was maad, the flood was hurlid to that hous: and it myghte not *move* it, for it was foundid on a sad stoon. *Wiclif. Luk.* 6.

Every *moving* thing that liveth shall be meat for you. *Genesis.*

When they were come to Bethlehem, all the city was *moved* about them. *Ruth.* i. 19.

Sinai itself was *moved* at the presence of God. *Psalm* lxviii.

In him we live, *move,* and have our being. *Acts* xvii. 28

So she departed full of grief and sdaine,
Which only did to great impatience *move* her.
Spenser's Faerie Queene.

In the vast wilderness, when the people of God had no settled habitation, yet a *moveable* tabernacle they were commanded of God to make. *Hooker.*

The choice and flower of all things profitable in other books, the Psalms do both more briefly and more *movingly* express, by reason of that poetical form wherewith they are written. *Id.*

Grittus offered the Transylvanians money; but minds desirous of revenge were not *moved* with gold.

A thousand knees,
Ten thousand years together, naked, fasting,
Upon a barren mountain, and still Winter
In storm perpetual, could not *move* the gods
To look that way thou wert. *Shakspeare.*

If he see aught in you that makes him like,
That any thing he sees, which *moves* his liking,
I can with ease translate it to my will. *Id.*

From those bloody hands
Throw your distempered weapons to the ground,
And hear the sentence of your *moved* prince. *Id.*

Within this three mile may you see it coming;
I say a *moving* grove. *Id. Macbeth.*

Let him that *moved* you hither,
Remove you hence; I knew you at the first,
You were a *moveable.*
—Why, what's a *moveable?*
—A joined stool. *Id. Taming of the Shrew.*

We seize
The plate, coin, revenues, and *moveables,*
Whereof our uncle Gaunt did stand possessed.
Shakspeare.

O thou eternal *Mover* of the heavens,
Look with a gentle eye upon this wretch. *Id.*

I would have had them write more *movingly. Id.*

When he made his prayer, he found the boat he was in *moveable* and unbound, the rest remained still fast. *Bacon.*

They find a great inconvenience in *moving* their suits by an interpreter. *Davies on Ireland.*

Could any power of sense the Roman *move*
To burn his own right hand? *Davies.*

They are to be blamed alike, who *move* and who decline war upon particular respects. *Hayward's Edward VI.*

Sometimes the possibility of preferment prevailing with the credulous, expectation of less expence with the covetous, opinion of ease with the fond, and assurance of remoteness with the unkind parents, have *moved* them without discretion to engage their children in adventures of learning, by whose return they have received but small contentment. *Wotton.*

Needs must they come whom God brings; his hand is in all the motions of his meanest creatures. Not only we, but they *move* in him. *Bp. Hall.*

If the first consultation be not sufficient, the will may *move* a review, and require the understanding to inform itself better. *Bp. Bramhall against Hobbes.*

I saw two angels play'd the mate;
With man alas no otherwise it proves,
An unseen hand makes all their *moves.*
Cowley.

The strength of a spring were better assisted by the labour of some intelligent *mover,* as the heavenly orbs are supposed to be turned. *Wilkins.*

The pretext of piety is but like the hand of a clock, set indeed more conspicuously, but directed wholly by the secret *movings* of carnality within. *Decay of Piety.*

Then feed on thoughts, that voluntary *move*
Harmonious numbers. *Milton.*

They, as they *move*
Their starry dance in numbers that compute
Days, months, and years, towards his all-cheering lamp,
Turn swift their various motions. *Id.*

The sun
Had first his precept so to *move*, so shine,
As might affect the earth with cold and heat.
Id.

The senses represent the earth as immoveable; for though it do *move* in itself, it rests to us who are carried with it. *Glanville.*

That there is a motion which makes the vicissitudes of day and night, sense may assure us; but whether the sun or earth be the common *movent* cannot be determined but by a further appeal.
Id. Scepsis.

You as the soul, as the first *mover* you,
Vigour and life on every part bestow. *Waller.*

The lungs, though untouched, will remain *moveless* as to any expansion or contraction of their substance.
Boyle.

The lunar month is natural and periodical, by which the *moveable* festivals of the Christian church are regulated. *Holder.*

To Indamora you my suit must *move*. *Dryden.*

When she saw her reasons idly spent,
And could not *move* him from his fixed intent,
She flew to rage. *Id. Æneid.*

Should a shipwrecked sailor sing his woe,
Would'st thou be *moved* to pity, or bestow
An alms? *Id. Persius.*

See great Marcellus! how inured in toils
He *moves* with manly grace, how rich with regal spoils. *Id. Æneid.*

Through various hazards and events we *move*
To Latium. *Id.*

Surveys rich *moveables* with curious eye,
Beats down the price, and threatens still to buy.
Dryden.

So orbs from the first *Mover* motion take,
Yet each their proper revolutions make. *Id.*

The will being the power of directing our operative faculties to some action, for some end, cannot at any time be *moved* towards what is judged at that time inattainable. *Locke.*

This saying, that God is the place of spirits, being literal, makes us conceive that spirits *move* up and down, and have their distances and intervals in God, as bodies have in space. *Id.*

His back-piece is composed of eighteen plates, *moveably* joined together by as many intermediate skins. *Grew.*

If it be in some part *movent*, and in some part quiescent, it must needs be a curve line, and so no radius. *Id. Cosmologia.*

That which *moves* a man to do any thing, must be the apprehension and expectation of some good from the thing which he is about to do. *South.*

Any one who sees the Teverone must conclude it to be one of the most *moveable* rivers in the world, that it is so often shifted out of one channel into another. *Addison on Italy.*

His air, his voice, his looks, his honest soul,
Speak all so *movingly* in his behalf,
I dare not trust myself to hear him talk. *Addison.*

Every pert young fellow that has a *moving* fancy, and the least jingle of verse in his head, sets up for a writer of songs, and resolves to immortalize his bottle or his mistress. *Steele.*

Any heat whatsoever promotes the ascent of mineral matter, which is subtile, and is consequently *moveable* more easily. *Woodward's Natural History.*

Images are very sparingly to be introduced: their proper place is in poems and orations, and their use is to *move* pity or terror, compassion and resentment.
Felton on the Classics.

O let thy sister, daughter, handmaid *move*,
Or all those tender names in one, thy love.
Pope.

The goddess *moves*
To visit Paphos, and her blooming groves. *Id.*

The Grecian phalanx, *moveless* as a tower,
On all sides battered, yet resists his power. *Id.*

What farther relieves descriptions of battles is the art of introducing pathetic circumstances about the heroes, which raise a different *movement* in the mind, compassion and pity. *Id. Essays.*

Under workmen are expert enough at making a single wheel in a clock, but are utterly ignorant how to adjust the several parts, or regulate the *movement*.
Swift.

The jest is to be a thing unexpected: therefore your undesigning manner is a beauty in expressions of mirth; and, when you are to talk on a set subject, the more you are *moved* yourself the more you will *move* others. *Id.*

Time, with all its celerity, *moves* slowly on to him whose whole employment is to watch its flight.
Johnson.

Thus dream they, and contrive to save a God
The incumbrance of his own concerns, and spare
The great Artificer of all that *moves*
The stress of a continual act, the pain
Of unremitted vigilance and care,
As too laborious and severe a task. *Cowper.*

Movement of a clock or watch, in its popular use among us, signifies all the inner works of a watch, clock, or other engine, which move, and, by that motion, carry on the design of the machine. The movement of a clock or watch is the inside, or that part which measures the time, strikes, &c., exclusive of the frame, case, dial-plate, &c. The parts common to both these movements are, the main-spring, with its appurtenances, lying on the spring-box, and in the middle thereof lapping about the spring-arbor, to which one end of it is fastened. On the top of the spring-arbor is the endless screw and its wheel; but in spring clocks this is a racket-wheel with its click that stops it. That which the main spring draws, and round which the chain or string is wrapped, is called the fusee; this is ordinarily taper; in large works going with weights it is cylindrical, and called the barrel. The small teeth at the bottom of the fusee or barrel, which stop it in winding up, is called the ratchet; and that which stops it when wound up, and is for that end driven up by the spring, the garde-gut. The wheels are various: the parts of a wheel are, the hoop or rim, the teeth, the cross, and the collet or piece of brass soldered on the arbor or spindle whereon the wheel is rivetted. The little wheels playing in the teeth of the larger are called pinions; and their teeth, which are four, five, six, eight, &c., are called leves; the ends of the spindle are called pivots; and the guttered wheel, with iron spikes at bottom, wherein the line of ordinary clocks runs, the pulley. See Clock.

MOUFET (Thomas), M. D., a celebrated English physician, born in London in the sixteenth century. He practised medicine with great reputation at Ipswich, but spent the latter part of his life near Wilton, and died about 1600. He published a work at London in 1634,

folio, entitled Theatrum Insectorum. A translation of it was published in London in 1658, folio. Martin Lister gives a very unfavorable opinion of this book, and censures him for quoting Aldrovandus without naming him; but Ray vindicates Moufet, and maintains that he has rendered an essential service to the republic of letters. Moufet was the first who introduced chemical medicines into England.

MOUG-DEN, or Chen-yang, a city of Chinese Tartary, and capital of the country of the Mantchews, or Eastern Tartars. It is ornamented with several public edifices, and provided with magazines of arms and storehouses. They consider it as the principal place of their nation; and, since China has been under their dominion, they have established the same tribunals here as at Peking, excepting that called Lii-pou; these tribunals are composed of Tartars only; their determination is final; and in all their acts they use the Tartar characters and language. The city is built on an eminence: a number of rivers add much to the fertility of the surrounding country. It may be considered as a double city, of which one is enclosed within the other: the interior contains the emperor's palace, hotels of the principal mandarins, sovereign courts, and the different tribunals; the exterior is inhabited by the common people, tradesmen, and all those who, by their employments, are not obliged to lodge in the interior. The latter is almost a league in circumference; and the walls which enclose both are more than three leagues round: these walls were rebuilt in 1631, and repaired several times in the reign of Khang-hi. Near the gates are two magnificent tombs of the first emperors of the reigning family, built in the Chinese manner, and surrounded by a thick wall furnished with battlements; the care of them is entrusted to several Mantchew mandarins, who at stated times perform certain ceremonies; a duty of which they acquit themselves with the same marks of veneration as if their masters were still living.

MOUJGHUR, a town of Hindostan, in Ajmeer, is surrounded on all sides by sand, which frequently has the appearance of a fine lake of water, on which the shrubs and turfs of grass are reflected, and form a perfect mirage. The town, which is surrounded by a high wall and towers, contains some handsome mosques and tombs, and several good wells and reservoirs of rain water. It belongs to a Mahometan chief, whose capital, Bahawulpore, is situated on the bank of the Gharra, or Hyphasis River, and who is tributary to Afghaunistaun. The inhabitants are Hindoos and Mahometans. This place was visited by Mr. Elphinstone, in 1808, on his embassy to Cabul, and he was hospitably entertained. Long. 72° 20′ E., lat. 28° 57′ N.

MOULD, *n. s.* & *v. a.* MOUL'DABLE, MOULD'ER, *n. s.* MOULD'ING. } Span. *molde;* Lat. *modulus.* The matrix in which any thing is cast, or receives its form; the cast or form received; to form; model; shape. Mouldable is capable of being formed or transformed; shapeable. A moulder, he who uses moulds, or forms any thing into shape. Moulding, an architectural ornament of regular shape.

If the liturgies of all the ancient churches be compared, it may be perceived they had all one original *mould.* *Hooker.*

My wife comes foremost; then the honoured *mould*
Wherein this trunk was framed. *Shakspeare.*
Of what coarse metal ye are *moulded.* *Id.*
New honours come upon him,
Like our strange garments cleave not to their *mould,*
But with the end of use. *Id. Macbeth.*

You may have fruit in more accurate figures, according as you make the *moulds.* *Bacon.*

The differences of figurable and not figurable, *mouldable* and not *mouldable,* are plebeian notions. *Id. Natural History.*

The king had taken such liking of his person that he resolved to make him a master-piece, and to *mould* him platonically to his own idea. *Wotton.*

Nor virtue, wit, nor beauty, could
Preserve from death's hand this their heavenly *mould.* *Carew.*

And now that they have mollified the stiffness of his prejudice, and with much tempering fitted him for their *mould,* he is a task meet for one of their best workmen. *Bp. Hall.*

William earl of Pembroke was a man of another *mould* and making, being the most universally beloved of any man of that age; and, having a great office, he made the court itself better esteemed, and more reverenced in the country. *Clarendon.*

Learn
What creatures there inhabit, of what *mould,*
Or substance, how endued, and what their power,
And where their weakness. *Milton's Paradise Lost.*
Did I request thée, Maker! from my clay
To *mould* me man? *Id.*
He forgeth and *mouldeth* metals, and builds houses. *Hale.*

So must the writer, whose productions should
Take with the vulgar, be of vulgar *mould.* *Waller.*
From their main-top joyful news they hear
Of ships, which by their *mould* bring new supplies. *Dryden.*
Sure our souls were near allied, and thine
Cast in the same poetick *mould* with mine. *Id.*
Hollow *mouldings* are required in the work. *Moxon.*

We may hope for new heavens and a new earth, more pure and perfect than the former; as if this was a refiner's fire, to purge out the dross and coarse parts, and then cast the mass again into a new and better *mould.* *Burnet.*

Hans Carvel, impotent and old,
Married a lass of London *mould.* *Prior.*
Here in fit *moulds* to Indian nations known,
Are cast the several kinds of precious stone. *Blackmore.*

By education we may *mould* the minds and manners of youth into what shape we please, and give them the impressions of such habits as shall ever afterwards remain. *Atterbury.*

Then rose the seed of chaos and of night,
Of dull and venal, a new world to *mould,*
And bring Saturnian days of lead and gold. *Dunciad.*

A faction in England, under the name of puritan, *moulded* up their new schemes of religion with republican principles in government. *Swift.*

For you alone he stole
The fire that forms a manly soul;
Then, to compleat it ev'ry way,
He *moulded* it with female clay. *Id. Miscellanies.*

Fabellus would never learn any moral lessons till they were *moulded* into the form of some fiction or fable like those of Æsop. *Watts.*

A heart at ease would have been charmed with my sentiments and reasonings; but as to myself, I was like Judas Iscariot preaching the gospel; he might melt and *mould* the hearts of those around him, but his own kept its native incorrigibility.
Burns.

MOULD, *n. s., v. n.*, & *v. a.* } Sax. mal; Goth.
MOULD'INESS, } and Swed. *mal*;
MOULD'Y, *adj.* } Goth. *malo*, rust or smut. Concretion; fustiness; foulness arising on various substances kept damp: to gather such concretion; to cover with, or corrupt by mould. Mouldiness is the state of being mouldy.

In woods, in waves, in wars she wants to dwell,
And will be found with peril and with pain;
Ne can the man that *moulds* an idle cell
Unto her happy mansion attain. *Faerie Queene.*

Very coarse, hoary, *moulded* bread the soldiers thrust upon their spears, railing against Ferdinand, who made no better provision. *Knolles.*

Is thy name *mouldy*?
—Yea.
—'Tis the more time thou wert used.
—Ha, ha, ha! Most excellent. Things that are *mouldy* lack use. Well said, Sir John. *Shakspeare.*

All *moulds* are inceptions of putrefaction, as the *moulds* of pies and flesh, which *moulds* turn into worms. *Bacon.*

Moss is a kind of *mould* of the earth and trees, but may be better sorted as a rudiment of germination.
Id.

There be some houses wherein sweet meats will relent, and baked meats will *mould*, more than in others. *Id.*

Flesh, fish, and plants, after a *mouldiness*, rottenness, or corrupting, will fall to breed worms.
Id. Natural History.

The malt made in summer is apt to contract *mould*. *Mortimer.*

The marble looks white, as being exposed to the winds and salt sea-vapours, that by continually fretting it continually preserves it from that *mouldy* colour which others contract. *Addison.*

A hermit, who has been shut up in his cell in a college, has contracted a sort of *mould* and rust upon his soul, and all his airs have aukwardness in them.
Watts.

MOULD, *n. s.* } Sax. molb; Swed. *mould*;
MOULD'ER, *v. a.* } Goth. *mold*. Earth; soil; site of growth; matter of which a thing is made: to moulder is to turn to dust; crumble away.

Though worms devour me, though I turn to *mould*,
Yet in my flesh I shall his face behold. *Sandys.*

Above the reach of loathful sinful lust,
Whose base effect through cowardly distrust
Of his own wings, dare not to heaven flie,
But like a *mouldwarp* in the earth doth lie.
Spenser.

If he had sat still, the enemy's army would have *mouldered* to nothing, and been exposed to any advantage he would take. *Clarendon.*

When the world began,
One common mass composed the *mould* of man.
Dryden.

Nature formed me of her softest *mould*,
Enfeebled all my soul with tender passions,
And sunk me even below my weak sex.
Addison.

Finding his congregation *moulder* every Sunday, and hearing what was the occasion of it, he resolved to give his parish a little Latin in his turn.
Id. Spectator.

The natural histories of Switzerland talk of the fall of those rocks when their foundations have been *mouldered* with age, or rent by an earthquake.
Id. on Italy.

Whatsoever *moulders*, or is wasted away, is carried into the lower grounds, and nothing brought back again. *Burnet.*

To them by smiling Jove 'twas given,
Great William's glories to recall,
When statues *moulder*, and when arches fall.
Prior.

The black earth every where obvious on the surface of the ground, we call *mould*. *Woodward.*

Those formed stones despoiled of their shells, and exposed upon the surface of the ground, in time decay, wear, and *moulder* away, and are frequently found defaced and broken to pieces.
Id. Natural History.

With nodding arches, broken temples spread,
The very tombs now vanished like their dead;
Some felt the silent stroke of *mouldering* age,
Some, hostile fury. *Pope.*

Are these the forms that *mouldered* in the dust!
Oh, the transcendant glory of the just! *Young.*

Those *moulds* that are of a bright chestnut or hazelly colour are accounted the best; next to that the dark grey and russet *moulds* are accounted best; the light and dark ash-colour are reckoned the worst, such as are usually found on common or heathy ground; the clear tawny is by no means to be approved, but that of a yellowish colour is reckoned the worst of all; this is commonly found in wild and waste parts of the country, and for the most part produces nothing but goss, furs, and fern. All good lands after rain, or breaking up by the spade, will emit a strong smell; that being always the best that is neither too unctuous nor too lean, but such as will easily dissolve; of a just consistence between sand and clay. *Miller.*

MOULD, or MOLD, in the mechanic arts, &c., a cavity artfully cut, with design to give its form or impression to some softer matter applied therein. Moulds are implements of great use in sculpture, foundry, &c. The workmen employed in melting the mineral or metallic ziele dug out of mines, have each their several moulds to receive the melted metal as it comes out of the furnace; but these are different, according to the diversity of metals and works. In gold mines they have moulds for ingots; in silver mines for bars; in copper or lead mines, for pigs or salmons; in tin mines for pigs and ingots; and in iron mines for sows, chimney-backs, anvils, caldrons, pots, and other large utensils and merchandises of iron; which are here cast as it were at first hand.

MOULD, among gold-beaters, a certain number of leaves of vellum or pieces of gut cut square, of a certain size, and laid over one another, between which they put the leaves of gold and silver which they beat on the marble with the hammer. See GOLD LEAF. They have four kinds of moulds, two whereof are of vellum, and two of gut: the smallest of those of vellum consists of forty or fifty leaves; the largest contains 100: for the others, each contains 500 leaves. The moulds have all their several cases, consisting of two pieces of parchment, serving to keep the leaves of the mould in their place, and prevent their being disordered in beating.

MOULD, in ship-building, a thin flexible piece of timber, used by shipwrights as a pattern

whereby to form the different curves of the timbers, and other compassing pieces in a ship's frame. There are two sorts of these, viz. the bend mould and hollow mould; the former of these determines the convexity of the timbers, and the latter their concavity on the outside, where they approach the heel, particularly towards the extremities of the vessel. The figure given to the timbers by this pattern is called their bevelling.

Moulds of founders of large works, as statues, bells, guns, and other brazen works, are of wax, supported within-side by what we call a core, and covered without-side with a cape or case. It is in the space which the wax took up, which is afterwards melted away to leave it free, that the liquid metal runs, and the work is formed; being carried thither by a great number of little canals, which cover the whole mould. See Foundry.

Moulds for leaden bullets are little iron pincers, each of whose branches terminates in a hemispherical concave, which, when shut, forms an entire sphere. In the lips or sides where the branches meet is a little jet or hole, through which the melted lead is conveyed.

Moulds of letter-founders are partly of steel and partly of wood. The wood, properly speaking, serves only to cover the real mould which is within, and to prevent the workman, who holds it in his hand, from being incommoded by the heat of the melted metal. Only one letter or type can be formed at once in each mould.

Moulds, in the manufacture of paper, are little frames composed of several brass or iron wires, fastened together by another wire still finer. Each mould is of the bigness of the sheet of paper to be made, and has a rim or ledge of wood to which the wires are fastened. These moulds are more usually called frames or forms. See Paper-Making.

Moulds of moneyers are frames full of sand, wherein the plates of metal are cast that are to serve for the striking of gold and silver coin. See Coinage. A sort of concave moulds made of clay, having within them the figures and inscriptions of ancient Roman coins, are found in many parts of England, and supposed to have been used for the casting of money. Mr. Baker saw some of these moulds that were found in Shropshire, bearing the same types and inscriptions with some of the Roman coins, and gave an account of them to the Royal Society. They were found among sand at Ryton in Shropshire, a mile from the great Watling Street Road. They are all of the size of the Roman denarius, and of little more than the thickness of a halfpenny. They are made of smooth pot or brick clay. There were many of them found together, and some of them are often found in Yorkshire; but they do not seem to have been met with in any other kingdom, except some that were once found at Lyons. They have been sometimes found joined together side by side, on one flat piece of clay, as if intended for casting a great number of coins at once; and all that have been found have been of the emperor Severus. They are sometimes found impressed on both sides, with the head of Severus on one side, and some well known reverse of his on the other. They seem plainly to have been intended for the coinage of money, though it is not easy to say in what manner they can have been employed to that purpose, especially those which have impressions on both sides, unless it may be supposed that they coined two pieces at the same time by the help of three moulds, of which this was to be the middle one. If, by disposing these into some sorts of iron frame or case, as our letter-founders do the brass moulds for casting their types, the melted metal could easily be poured into them, it would certainly be a very easy method of coining, as such moulds require little time or expense to make, and therefore might be supplied with new ones as often as they break. These moulds seem to have been burnt or baked sufficiently to make them hard; but not so as to render them porous, whereby they would have lost their smooth surface, which in these is so close that whatever metal should be formed in them would have no appearance like the sand-holes by which counterfeit coins and medals are usually detected.

MOULIN (Charles Du), a celebrated civilian, and one of the most learned men of the sixteenth century, was born of a considerable family in Paris in 1500, and acquired great reputation by his skill in the law. He published many works, which have been collected and printed in 5 vols. folio; and are considered as the most excellent works France has produced on the subject of civil law. He died at Paris in 1566.

Moulin (Peter Du), a protestant divine, of the same family with the former, born in 1568. He taught philosophy at Leyden; and afterwards became chaplain to the princess of Navarre. At the desire of king James I. he came over to England in 1615, and prepared a plan for the union of the Protestant churches. He presided at the synod held by the Calvinists at Alais in 1620. Some time after he retired to Sedan, where the duke of Bouillon made him professor of divinity, and minister. He was employed by the Calvinists in the most important affairs; and died at Sedan in 1658. His principal works are, 1. The Anatomy of Arminianism; 2. A Treatise on Repentance, and the Keys of the Church; 3. The Capuchine; 4. A Defence of the Reformed Churches; 5. The Judge of Controversies and Traditions; 6. The Anatomy of the Mass; 7. The Novelty of Popery.

Moulin (Peter Du), eldest son of the preceding, was chaplain to Charles II., and prebendary of Canterbury, where he died in 1684, aged eighty-four. He wrote, 1. The Peace of the Soul, in French; 2. Clamor Regii Sanguinis; which Milton, by mistake, attributed to Alexander Morus; 3. A Defence of the Protestant Religion.

Moulin (Gabriel Du), a French historian and ecclesiastic, who wrote, 1. Histoire Generale de Normandie sous les Ducs; Rouen, 1631, fol.; 2. Histoire des Conquetes des Normans dans les royaumes de Naples et Sicilie, fol.

MOULINET, in mechanics, a roller, which, being crossed with two levers, is usually applied to cranes, capstans, and other sorts of engines of the like nature, to draw ropes, and heave up stones, &c.

Moulinet is also a kind of turnstile, or wooden cross, which turns horizontally upon a stake fixed in the ground: usually placed in passages to keep out cattle, and to oblige passengers to go and come one by one. Those moulinets are often set near the outworks of fortified places at the sides of the barriers, through which people pass on foot.

MOULINS, a large and handsome post town, and the chief place of a prefecture or arrondissement in the department of the Allier, France, having an inferior court of justice, a board of trade and manufactures, societies of rural economy and the arts, a royal court at Riom, a royal college, and a public drawing school, with 13,800 inhabitants. This town stands very pleasantly, in a fertile plain, on the right bank of the Allier, over which there is a noble bridge built of freestone; the streets are clean and airy, adorned with fountains and houses regularly built, mostly of brick. The public squares are planted with fine trees, and have delightful walks within them; the neighbourhood presents beautiful country promenades, formed by fine avenues of poplars. At the gates there is a spring of warm mineral water.

The manufactures of the place consist of cutlery, that is in high repute, silk and cotton caps, table and other linen, woollen and cotton yarn; and a trade is carried on in grain, wine, iron, wood, oxen, pigs, &c. The most remarkable public buildings and institutions are the library and cabinet of natural history, the museum, the tomb of the constable Montmorency, the barracks for cavalry, the departmental nursery, and the bridge over the Allier, consisting of ten arches, and level footpaths through its whole length, and from which the view embraces a fine road, in a direct line, for more than three miles. This town is forty-three miles south of Nevers, ninety-one W.S.W. of Châlons-sur-Saône, 139 north-west of Lyons, and 217 south-east of Paris, in long. 1° E., lat. 46° 34′ N.

MOULT, *v. n.* } Formerly written mout.
Moult'ing, *adj.* } Belg. *muyten*, from Mew, which see. To shed or change feathers: hence to lose feathers.

Some birds upon *moulting* turn colour, as robin-red-breasts, after their *moulting*, grow to be red again by degrees. *Bacon.*

Time shall *moult* away his wings,
Ere he shall discover
In the whole wide world again
Such a constant lover. *Suckling.*

The widowed turtle hangs her *moulting* wings,
And to the woods in mournful murmur sings.
Garth.

MOUNCH, or Maunch, *v. a.* *Mouch*, to eat much.—Ainsworth. 'This word,' says Macbean, 'is retained in Scotland, and denotes the action of toothless gums on a hard crust, or any thing eatable: it seems to be a corruption of the French word *manger*.'

A sailor's wife had chesnuts in her lap,
And *mouncht*, and *mouncht*, and *mouncht*.
Shakspeare.

MOUND, *n. s.* & *v. a.* Sax. munbian, to defend; Goth. *mund*, a defence. Any thing raised to fortify or defend; a bank of earth or stone: to fortify with a mound.

His broad branches laden with rich fee,
Did stretch themselves without the utmost bound
Of this great garden, compassed with a *mound*.
Faerie Queene.

The sea is a thief, whose liquid surge resolves
The *mounds* into salt tears. *Shakspeare.*

God had thrown
That mountain as his garden *mound*, high raised.
Milton.

Nor cold shall hinder me with horns and hounds
To thrid the thickets, or to leap the *mounds*.
Dryden.

Such as broke through all *mounds* of law, such as laughed at the sword of vengeance which divine justice brandished in their faces. *South's Sermons.*

The state of Milan is like a vast garden surrounded by a noble *mound*-work of rocks and mountains. *Addison.*

And Lara sleeps not where his fathers sleep,
But where he died his grave was dug as deep;
Nor is his mortal slumber less profound,
Though priest nor blest, nor marble decked the *mound*. *Byron.*

Mound, in heraldry, from mundus, the world; a globe encircled, and having a cross on the top, as 'He beareth, or, a mound, sable, environed with a circle, and ensigned with a cross avellane, gules; by the name of Chawlas.'

MOUNT, *n. s.*, *v. n.*, & *v. a.*
Moun'tain, *n. s.* & *adj.*
Mountaineer', *n. s.*
Mountainet',
Moun'tainous, *adj.*
Moun'tainousness, *n. s.*
Moun'tain-parsley,
Moun'tain-rose,
Moun'tant, *adj.*
Moun'ter, *n. s.*
Moun'ty.
} Fr. *mont*, *monter*, *montagne*; Ital., Span., and Portug. *monte*: Lat. *mons*, *montanus*. A hill, natural or artificial; an eminence; heap: hence an accumulated treasure. See the extract from Bacon. Mr. Thomson thinks the vulgar expression 'a mint,' may be a corruption of 'a mount of money.' To mount is to rise comparatively high; to tower: hence to get on horseback; also, as an active verb, to raise aloft; lift up; place on an elevation, and particularly on horseback; embellish. A mountain is a large hill or elevation of the earth: hence any thing exremely large: as an adjective, it means growing on or pertaining to such elevations. A mountaineer is an inhabitant of a mountainous or hilly country: hence a rustic, or barbarian. Mountainet, a diminutive of mountain. 'Elegant,' says Dr. Johnson, 'but not in use.' Mountainous means abounding in or characterised by mountains; bulky; huge; inhabiting mountains. Mountainousness, quality or state of being mountainous. Mountain-parsley and rose, are plants. See Athamanta and Rosa. Mountant is rising high; aspiring. A mounter, one who mounts or rises. The mounty, is the rise of a hawk.

Jacob offered sacrifice upon the *mount*.
Gen. xxxi. 54.

Doth the eagle *mount* up at thy command, and make her nest on high? *Job* iii. 27.

Though his excellency *mount* up to the heavens, and his head reach unto the clouds, yet he shall perish. *Id.* xx. 6.

Her breasts sweetly rose up like two fair *mounainets* in the pleasant vale of Tempe. *Sidney.*

Without *mounting* by degrees a man cannot attain unto high things. *Id.*

The sport which Basilius would shew to Zelmane was the *mounty* at a heron, which getting up on his waggling wings with pain, as though the air next to the earth were not fit to fly through, now diminished the sight of himself. *Id.*

He might see what *mounts* they had in short time cast, and what a number there was of warlike soldiers. *Knolles.*

Armenia is so called from the *mountainousness* of it. *Brerewood.*

Mounting his eyes,
He did discharge a horrible oath.
Shakspeare. Henry VIII.

He cryed, oh! and *mounted.* *Id. Cymbeline.*

Now for our *mountain* sports up to yond hill,
Your legs are young. *Id.*

Yield, rustic *mountaineer.* *Id.*

A base ignoble mind,
That *mounts* no higher than a bird can soar.
Shakspeare.

The fire that *mounts* the liquor till it runs o'er,
Seeming to augment, wastes it. *Id.*

I had been drowned; a death that I abhor: for the water swells a man, and what should I have been when I had been swelled? I should have been a *mountain* of mummy. *Id.*

You may as well forbid the *mountain* pines
To wag their high tops, and to make a noise,
When they are fretted with the gusts of heaven.
Id.

What custom wills in all things, should we do't,
Mountainous error would be too highly heapt
For truth to o'erpeer. *Id.*

Hold up, you sluts,
Your aprons *mountant*; your're not oathable,
Although, I know, you'll swear. *Id.*

The air is so thin, that a bird therein has no feeling of her wings, or any resistance of air to *mount* herself by. *Raleigh.*

And by his false worship such power he did gain,
As kept him o' th' *mountain*, and us on the plain.
Id.

These examples confirmed me in a resolution to spend my time wholly in writing; and to put forth that poor talent God hath given me, not to particular exchanges, but to banks or *mounts* of perpetuity, which will not break. *Bacon.*

In destructions by deluge and earthquake, the remnant which hap to be reserved are ignorant and *mountainous* people, that can give no account of the time past. *Id. Essays.*

Though they to the earth were thrown,
Yet quickly they regained their own,
Such nimbleness was never shown;
They were two gallant *mounters.*
Drayton's Nymphiad.

The fire of trees and houses *mounts* on high,
And meets half-way new fires that shower from sky.
Cowley.

If the liturgy should be offered to them, it would kindle jealousy, and as the first range of that ladder, which should serve to *mount* over all their customs.
Clarendon.

The ark no more now floats, but seems on ground,
Fast on the top of some high *mountain* fixed.
Milton.

No savage, fierce bandit, or *mountaineer,*
Will dare to soil her virgin purity. *Id.*

Three hundred horses, in high stables fed,
Of these he chose the fairest and the best,
To *mount* the Trojan troop. *Dryden's Æneid.*

Ambitious meteors set themselves upon the wing, taking every occasion of drawing upward to the sun; not considering that they have no more time allowed them in their *mounting* than the single revolution of a day; and that, when the light goes from them, they are of necessity to fall. *Dryden.*

From Acman's hands a rolling stone there came,
So large, it half deserved a *mountain's* name! *Id.*

Amiternian troops of mighty fame,
And *mountaineers,* that from Severus came. *Id.*

Behold yon *mountain's* hoary height,
Made higher with new *mounts* of snow. *Id.*

Clear reason, acting in conjunction with a well-disciplined, but strong and vigorous fancy, seldom fail to attain their end; fancy, without reason, is like a horse without a rider; and reason without fancy is not well *mounted.* *Grew's Cosmologia.*

The ascent of the land from the sea to the foot of the *mountains,* and the height of the *mountains* from the bottom to the top, are to be computed, when you measure the height of a *mountain,* or of a *mountainous* land, in respect of the sea. *Burnet.*

On earth, in air, amidst the seas and skies,
Mountainous heaps of wonders rise;
Whose tow'ring strength will ne'er submit
To reason's batteries, or the mines of wit. *Prior.*

In vain thy hungry *mountaineers*
Come forth in all their warlike jeers,
The shield, the pistol, dirk, and dagger,
In which they daily wont to swagger. *Tickell.*

A few *mountaineers* may escape, to continue human race; and yet illiterate rusticks, as *mountaineers* always are. *Bentley.*

Bring then these blessings to a strict account,
Make fair deductions, see to what they *mount.*
Pope.

Few bankers will to heaven be *mounters.* *Swift.*

If man can't *mount*
He will descend. *Young.*

Here rivers in the sea were lost;
There *mountains* to the skies were tost:
Here tumbling billows marked the coast,
With surging foam;
There distant shone Art's lofty boast,
The lordly dome. *Burns.*

Mountains interposed
Make enemies of nations who had else
Like kindred drops been mingled into one.
Cowper.

The land appeared a high and rocky coast,
And higher drew the *mountains* as they drew,
Set by a current towards it. *Byron.*

Morn dawns; and with it stern Albania's hills,
Dark Sulis' rocks and Pindus' inland peak,
Robed half in mist, bedewed with snowy rills,
Arrayed in many a dun and purple streak,
Arise; and, as the clouds along them break,
Disclose the dwelling of the *mountaineer.* *Id.*

Mount Desert, an island and town on the coast of Maine, in Hancock county, forty miles east of Castine, 295 north-east of Boston. The island is fifteen miles long, and twelve broad. It is situated between Frenchman's and Bluehill bays.

Mount Holley, a post town, the capital of Burlington county, New Jersey, near Ancocus Creek, twenty-three miles E. N. E. of Philadelphia. It is a flourishing town, and contains a court-house, jail, market-house, bank, two houses of public worship, one for Episcopalians, and one for Friends, and various valuable mills.

Mount Pleasant, a considerable post-town

of West Chester county, New York, on the east side of the Hudson, thirty-six miles north of New York. Population 3119. This town possesses considerable wealth and trade.

Mount Pleasant, a post town of Jefferson county, Ohio; ten miles north-east of Clarsville, twenty south-west of Steubenville, west 292. It is a flourishing town, and contains a market-house, a bank, and a Friends' meeting-house. In the vicinity there are a woollen manufactory, a paper mill, and other valuable mills.

Mount Vernon, a post town of Kennebeck county of Maine, eighteen miles north-west of Augusta, 170 N. N. E. of Boston.

Mounts of Piety, certain funds or establishments in Italy, where money is lent out on some small security. There were also mounts of piety in England, raised by contribution for the benefit of people ruined by the extortions of the Jews.

A Mountain is a considerable eminence of land, elevated above every thing adjoining to it, and commanding all the surrounding places: it is commonly full of inequalities, cavities more or less exposed, and strata half laid open. This name abbreviated is likewise given to a chain of mountains; as Mount Atlas, Mount Caucasus, &c. Those who have surveyed the earth in general, and studied nature on a grand scale, have constantly been struck with admiration and astonishment at the sight of such majestic eminences which, extending in different ways, seem to rule over the rest of the globe, and which present to the beholder a spectacle equally magnificent and interesting.

According to the Newtonian system, an *attractive power* is not only exerted between those large masses of matter which constitute the sun and planets, but likewise between all comparatively smaller bodies, and even between the smallest particles of which they are composed. Agreeably to this hypothesis, a heavy body, which ought to gravitate or tend towards the centre of the earth, in a direction perpendicular to its surface, supposing the said surface to be perfectly even and spherical, ought likewise, though in a less degree, to be attracted and tend towards a mountain placed on the earth's surface; so that a plumb-line, for instance, of a quadrant, hanging in the neighbourhood of such a mountain, ought to be drawn from a perpendicular situation, in consequence of the attractive power of the quantity of matter of which it is composed acting in a direction different from that exerted by the whole mass of matter in the earth, and with a proportionably inferior degree of force. Though Sir Isaac Newton had long ago hinted at an experiment of this kind, and had remarked that a mountain of an hemispherical figure, three miles high and six broad, would not by its attraction draw the plumb-line 2′ (or rather 1′ 18″) out of the perpendicular: yet no attempt to ascertain this matter by actual experiment was made till about 1738; when the French academicians, particularly Messrs. Bouguer and Condamine, who were sent to Peru to measure a degree under the equator, attempted to discover the attractive power of Chimboraço, in Quito. According to their observations, Chimboraço exerted an attraction equal to 8″. Though this experiment was not perhaps sufficient to prove satisfactorily even the reality of an attraction, much less the precise quantity of it; yet it does not appear that any steps had been since taken to repeat it. Through the munificence of his Britannic majesty, the Royal Society were enabled to undertake the execution of this delicate and important experiment; the astronomer royal was chosen to conduct it. After various enquiries, the mountain Schehallien, situated nearly in the centre of Scotland, was pitched upon as the most proper for the purpose that could be found in this island. The observations were made by taking the meridian zenith distances of different fixed stars, near the zenith, by means of a zenith sector of ten feet radius; first on the south, and afterwards on the north side of the hill, the greatest length of which extended in an east and west direction. It is evident that, if the mass of matter in the hill exerted any sensible attraction, it would cause the plumb-line of the sector through which an observer viewed a star in the meridian, to deviate from its perpendicular situation, and would attract it contrarywise at the two stations, thereby doubling the effect. On the south side the plummet would be drawn to the northward, by the attractive power of the hill placed to the northward of it: and, on the north side, a contrary and equal deflection of the plumb-line would take place, in consequence of the attraction of the hill, now to the south of it. The apparent zenith distances of the stars would be affected contrarywise; those being increased at the one station which were diminished at the other; and the correspondent quantities of the deflection of the plumb-line would give the observer the sum of the contrary attractions of the hill, acting on the plummet at the two stations; the half of which will of course indicate the attractive power of the hill. The operations requisite for this experiment lasted about four months; and from them it appears that the sum of the two contrary attractions of the mountain Schehallien, in the two temporary observations, which were successively fixed half way up the hill (where the effect of its attraction would be greatest), was equal to 11′ 6″. From a rough computation, founded on the known law of gravitation and on an assumption that the density of the hill is equal to the mean density of the earth, it appears that the attraction of the hill should amount to about the double of this quantity. Thence it was inferred, that the density of the hill is only about half the mean density of the earth. It does not appear, however, that the mountain Schehallien has ever been a volcano, or is hollow; as it is extremely solid and dense, and seemingly composed of an entire rock. The inferences drawn from these experiments may be reduced to the following: 1. That the mountain Schehallien exerts a sensible attraction; therefore, from the rules of philosophising, we are to conclude that every mountain, and indeed every particle of the earth, is endued with the same

property, in proportion to its quantity of matter. 2. The law of the variation of this force, in the inverse ratio of the squares of the distances, as laid down by Sir Isaac Newton, is also confirmed by this experiment. For if the force of attraction of the hill had been only to that of the earth as the matter in the hill to that of the earth, and had not been greatly increased by the near approach to its centre, the attraction thereof must have been wholly insensible. But now, by only supposing the mean density of the earth to be double to that of the hill, which seems very probable from other considerations, the attraction of the hill will be reconciled to the general law of the variation of attraction in the inverse duplicate ratio of the distances, as deduced by Sir Isaac Newton from the comparison of the motion of the heavenly bodies with the force of gravity at the surface of the earth; and the analogy of nature will be preserved. 3. We may now, therefore, be allowed to admit this law, and to acknowledge that the mean density of the earth is at least double of that at the surface; and consequently that the density of the internal parts of the earth is much greater than near the surface. Hence also, the whole quantity of matter in the earth will be at least as great again as if it had been all composed of matter of the same density with that at the surface: or about four or five times as great as if it were all composed of water. This conclusion, Maskelyne adds, is totally contrary to the hypothesis of some naturalists, who suppose the earth to be only a great hollow shell of matter; supporting itself from the property of an arch, with an immense vacuity in the midst of it. But, were that the case, the attraction of mountains, and even smaller inequalities in the earth's surface, would be very great, contrary to experiment, and would affect the measures of the degrees of the meridian much more than we find they do; and the variation of gravity, in different latitudes, in going from the equator to the poles, as found by pendulums, would not be near so regular as it has been found by experiment to be. 4. As mountains are by these experiments found capable of producing sensible deflections of the plumb-lines of astronomical instruments, it is of great importance in the mensuration of degrees in the meridian, either to choose places where the irregular attractions of the elevated parts may be small; or where, by their situation, they may compensate or counteract the effects of each other.

Mountains, Marble.—Of these there are great numbers in Egypt, from which, though immense quantities have been carried off for the multitude of great works erected by the ancient Egyptians, yet in the opinion of Mr. Bruce, who passed them in his journey to Abyssinia, there is such an abundant mass, that it would be sufficient to build Rome, Athens, Corinth, Syracuse, Memphis, Alexandria, and half a dozen more such cities. The first mountain of this kind mentioned by him is one opposite to Terfowey, consisting partly of green marble, partly of granite, with a red blush upon a gray ground, and square oblong spots. Here he saw a monstrous obelisk of marble, very nearly square, broken at the end, and nearly thirty feet long, and nineteen feet in the face. Throughout the plain there were scattered small pieces of jasper, with green, white, and red spots, called in Italy diaspro sanguineo; and all the mountains upon that side seem to consist of the same materials. Here also were quantities of small pieces of granite of various kinds, as well as porphyry, which had been carried down by a torrent, probably from the ancient quarries. These pieces were white mixed with black spots, and red with green veins and black spots. All the other mountains on the right hand were of red marble, but no great beauty; those on the opposite side being green marble, probably of the serpentine kind. This, he says, was one of the most extraordinary sights he ever saw. The former mountains were of a considerable height, without a tree, shrub, or blade of grass upon them; and this looked exactly as if it had been covered over with Havannah and Brasil snuff. Proceeding farther on, he entered another defile, with mountains of green marble on every side. The highest he saw appeared to be composed of serpentine marble, having a large vein of green jasper spotted with red running through about one-third of its thickness. It was extremely hard; so that it did not yield to the blows of a hammer, though it was evident that it had formerly been quarried; and there were channels for bringing water, which terminated in this quarry of jasper; 'a proof,' says Mr. Bruce, 'that water was one of the means used in cutting those hard stones.' On these mountains 'the porphyry shows itself by a fine purple sand without any gloss upon it. It is mixed with the white sand and fixed marble of the plains. Green and unvariegated marble is also found in the same mountain with the porphyry. The marble is brittle for some inches where the two veins meet; but the porphyry is as hard as in other places.' There is likewise a kind of red marble with white veins, which our author has seen at Rome and in Britain. The common green, called serpentine, looks as if it were covered with Brasil snuff. Along with this green he saw two samples of the beautiful kind called Isabella; one of them with the yellowish cast of Quaker color, the other of that bluish cast called dove color; and these two seemed to divide the mountains with the serpentine. Here also he saw the vein of jasper. The marble of greatest value, however, is that called verde antico, which is of a dark green color with white spots. It is found, like the jasper, in the mountains of the plain green serpentine, and is not discoverable by the dust or any particular color upon it. Mountains of marble and porphyry are not peculiar to Egypt. They are likewise met with in the north of Scotland; in the Western Isles there are such quantities of these materials as, in the opinion of Mr. Williams, would be sufficient to serve all Europe.

Mountains of the Lions, mountains of Africa, which divide Nigritia from Guinea, and extend as far as Ethiopia, were styled by the ancients the mountains of God, on account of their being greatly subject to thunder and lightning.

Mountains of the Moon, a chain of mountains in Africa, between Abyssinia and Mono-

motapa, and receiving the above denomination from their great height.

MOUNTAINS, WHITE, a range of mountains in New Hampshire, reckoned the highest in New England. They are visible on land eighty miles distant, and are the first observed at sea. Their Indian name is Agiochochook. The number of summits is unknown, but seven are visible at once. Of these the highest is called Mount Washington. The whole circuit of them is not less than fifty miles. Their height above an adjacent meadow is reckoned to be about 5500 feet, and the meadow is 3500 feet above the level of the sea. The snow and ice cover them nine or ten months in the year; during which time they exhibit that bright apperarance from which they are denominated white. From this summit in clear weather is exhibited a noble view, extending sixty or seventy miles in every direction. Although they are more than seventy miles within land, they are seen many leagues off at sea, and appear like an exceedingly bright cloud in the horizon. These immense heights, being copiously replenished with water, afford a variety of beautiful cascades. Three of the largest rivers in New England receive a great part of their waters from them. The Amanoosuck and Israel, two principal branches of Connecticut, fall from their west side. The Peabody, a branch of the Amariscogen, falls from the north-east side; and almost the whole of the Saco descends from the south side. The highest summit of these mountains is about lat. 44° N.

MOUNTAINS, WRITTEN, Mountains of Inscriptions, or Jibbel el Mokatteb, are a mountain or chain of mountains in the wilderness of Sinai; on which, for a great extent of space, the marble is said to be inscribed with innumerable characters, reaching from the ground sometimes to the height of twelve or fourteen feet. These were mentioned by a Greek author in the third century, and some of them have been copied by Pococke, Montague, and other travellers; notwithstanding which, there is still a very great uncertainty even of their existence. The vast number of these inscriptions, the desert place in which they are found, and the length of time requisite for executing the task, once induced a notion that they are the work of the Israelites during their forty years wandering in the wilderness. Others are of opinion that they consist merely of the names of travellers and the dates of their journeys. M. Niebuhr, who visited this country in September 1762, made every attempt in his power, though without success, to obtain a sight of this celebrated mountain. After much vain enquiry, he was at last conducted to some rocks upon which there were inscriptions in unknown characters. They are most numerous in a narrow pass between two mountains named Om-er-ridstein; and, says M. Niebuhr, 'the pretended Jibbel el Mokatteb may possibly be in its neighbourhood.' Some of these inscriptions were copied by our author; but he does not look upon them to be of any consequence. When Niebuhr arrived at last at the mountain to which the sheik had promised to conduct him, he found no inscription, but, on climbing up to the top, he found an Egyptian cemetery, the stones of which were covered with hieroglyphics. The tomb-stones were from five to seven feet long, some standing on end and others lying flat; and 'the more carefully they are examined,' says he, 'the more certainly do they appear to be sepulchral stones, having epitaphs inscribed on them.' The translator of Volney's Travels ascribes these inscriptions to the pilgrims who visit Mount Sinai; but they ought surely to have been written in a language which somebody could understand; but, from the copies that have been taken of them by Dr. Pococke and others, it does not appear that they could be explained by any person. When Dr. Clayton, bishop of Clogher, visited this part of the world about 1723, he expressed the greatest desire to have the matter concerning these written mountains ascertained, and even made an offer of £500 sterling to any literary person who would undertake the journey, and endeavour to decypher the inscriptions; but no such person appeared.

For mountains, as to their geological character, see GEOLOGY. Particular mountains and mountain chains are described in their alphabetical place.

MO'UNTENANCE, *n. s.* Amount of a thing in space. Obsolete.

Of all the remenant of min other care
Ne set I not the *mountance* of a tare,
So that I coud don ought to your plesance.
Chaucer. Cant. Tale.

This said, they both a furlong's *mountenance*
Retired, their steeds to runne an even race.
Spenser.

MOUN'TEBANK, *n. s.* Fr. *montabanc*; Ital. *montare in banco*. A quack that was commonly seen to mount a bench in markets in former times, and boast his infallible drugs and cures; any juggler or boaster: to mountebank is to cheat; delude by false pretences.

As nimble jugglers that deceive the eye,
Disguised cheaters, prating *mountebanks*,
And many such like libertines of sin.
Shakspeare.

I'll *mountebank* their loves,
Cog their hearts from them. *Id. Coriolanus.*

But these two every honest Papist will confess, with voluntary shame and grief; and grant that it may grow a disputable question, whether *mountebanks* or priests are the greatest cozeners. *Bp. Hall.*

She, like a *mountebank*, did wound
And stab herself with doubts profound,
Only to show with how small pain
The sores of faith are cured again. *Hudibras.*

But Æchylus, says Horace in some page,
Was the first *mountebank* that trod the stage.
Dryden.

There are *mountebanks* and smatterers in state.
L'Estrange.

Nothing so impossible in nature but *mountebanks* will undertake. *Arbuthnot's History of John Bull.*

It looks like a *mountebank* to boast infallible cures.
Baker.

MOUNT-SORREL, a town in Leicestershire, so named from a high mount or solid rock adjoining to the town, of a dusky, red, or sorrel-colored stone, extremely hard. Of rough stones hewn out of this rock the town is built. It has a market on Monday. It was noted formerly for its castle, and is seated on the Stour, over

which is a bridge. It is twenty miles south-east by south of Derby, and 105 north-west by north of London.

MOURA, an old town of Portugal, in the province of Alentejo, on the Guadiana. It has a strong castle, and its public buildings are two parish churches, some convents, and an hospital. Inhabitants 4000. Thirty-seven miles S.S.E. of Evora, and ninety-eight E.S.E. of Lisbon.

MOURAO, a fortified town in the south of Portugal, in the province of Alentejo, near the Guadiana. It stands on a hill, in a rugged fertile district. Inhabitants 2200. It is eighteen miles N.N.E. of Moura, ninety-six east by south of Lisbon, and thirty-two east of Evora.

MOURN, *v. n.* & *v. a.* Sax. mupnan; Mæs. Goth. *mournan*; Teut. *mornen*; Fr. *morne*; Lat. *mœror* (Greek μορεον, μορος.—Minsheu). To grieve; be sorrowful; wear a funeral or sorrowful habit; bewail; lament; utter sorrow: mournful means sorrowful; expressive of mourning: mourning is used for the utterance and the garb or dress of sorrow: the other derivations are varied by the subfixes in the usual manner.

MOURN'ER, *n. s.*
MOURN'FUL, *adj.*
MOURN'FULLY, *adv.*
MOURN'FULNESS, *n. s.*
MOURN'ING.

Abraham came to *mourn* for Sarah, and to weep. *Genesis.*

Feign thyself to be a *mourner*, and put on *mourning* apparel. 2 *Sam.* xiv. 2.

My vineyard, being desolate, *mourneth* unto me. *Jer.* xii.

Wo is me, who will deliver me in those days? the beginning of sorrows and great *mournings*. 2 *Esdr.* xvi. 18.

We *mourn* in black; why *mourn* we not in blood? *Shakspeare.*

Publish it that she is dead;
Maintain a *mourning* ostentation,
Hang mournful epitaphs. *Id. Much Ado about Nothing.*

The kindred of the queen must die at Pomfret.
—Indeed I am no *mourner* for that news,
Because they have been still my adversaries. *Shakspeare.*

No funeral rites, nor man in *mournful* weeds,
Nor *mournful* bell shall ring her burial. *Id.*

Upon his tomb
Shall be engraved the sack of Orleans;
The treacherous manner of his *mournful* death. *Id.*

Beat the drum, that it speak *mournfully*. *Id.*

The king spoke of him admiringly and *mourningly*. *Id.*

They rejoice at the presence of the sun, and *mourn* at the absence thereof. *Bacon's Natural History.*

Lo, joy, and comfort, is the end of *mourners*; and *mourning* and weeping is the end of mirth and laughter. *Bp. Hall.*

A flood thee also drowned,
And sunk thee as thy sons; till gently reared
By the' angel, on thy feet thou stoodst at last,
Though comfortless, as when a father *mourns*
His children, all in view destroyed at once. *Milton.*

The love-lorn nightingale
Nightly to thee her sad song *mourneth* well. *Id.*

The muse that *mourns* him now his happy triumph sung. *Dryden.*

He lives to be chief *mourner* for his son;
Before his face his wife and brother burn. *Id.*

The *mourner* eugh and builder oak were there. *Id.*

The winds within the quivering branches played,
And dancing trees a *mournful* musick made. *Id.*

They through the master street the corpse conveyed,
The houses to their tops with black were spread,
And even the pavements were with *mourning* hid. *Id.*

A woman that had two daughters buried one, and *mourners* were provided to attend the funeral. *L'Estrange.*

Scythia *mourns*
Our guilty wars, and earth's remotest regions
Lie half unpeopled by the feuds of Rome. *Addison.*

To cure thy woe, she shews thy fame;
Lest the great *mourner* should forget
That all the race whence Orange came
Made virtue triumph over fate. *Prior.*

The *mournful* fair,
Oft as the rolling years return,
With fragrant wreaths and flowing hair,
Shall visit her distinguished urn. *Id.*

Friends in sable weeds appear,
Grieve for an hour, perhaps, then *mourn* a year;
And bear about the mockery of woe
To midnight dances, and the puppet-show. *Id.*

But, oh! against himself his labour turned;
The more he comforted the more she *mourned*:
Compassion swells our grief; words, soft and kind,
But sooth our weakness, and dissolve the mind. *Young.*

From noise and riot he devoutly kept,
Sighed with the sick, and with the *mourner* wept. *Harte.*

When an emperor dies in China, the whole expense of the solemnities is defrayed from the royal coffers. When the great die here, mandarins are ready enough to order *mourning*; but I do not see that they are so ready to pay for it. What, order me to wear *mourning* before they know whether I can buy it or no! *Goldsmith. Citizen of the World.*

Sir Roger de Coverley, because it happened to be a cold day in which he made his will, ordered his servants great-coats for *mourning*; so, because I have been this week plagued with an indigestion, I have sent you by the carrier a fine old ewe-milk cheese. *Burns.*

And see his lordly fellow-worm
The poor petition spurn,
Unmindful, though a weeping wife
And helpless offspring *mourn*. *Id.*

Then, anxious to be longer spared,
Man *mourns* his fleeting breath:
All evils then seem light compared
With the approach of death. *Cowper.*

MOURNE, *n. s.* Fr. *morne*. The round end of a staff; that part of a lance to which the steel part is fixed, or whence it is taken off.

He carried his lances, which, though strong to give a lancely blow indeed, yet so were they colored with hooks near the *mourne*, that they prettily represented sheep hooks. *Sidney.*

MOURNING FOR THE DEAD, amongst the ancient Jews, on the death of their relations or intimate friends, was expressed by weeping, tearing their clothes, smiting their breasts, or tearing them with their nails, pulling or cutting off their hair and beards, walking barefoot, lying upon the ground, fasting, or eating upon the ground. They kept themselves closely shut up in their houses, covered their faces, and abstained from all work, even reading the law, and saying their usual prayers. They neither dressed themselves, nor made their beds, nor cut their nails, nor

went into the bath, nor saluted any body. The time of mourning was generally seven days; more or less, according to circumstances, but never exceeding thirty days. The different periods of the time of mourning required different degrees of grief and different tokens of it. The Greeks, on the death of their friends, showed their sorrow by secluding themselves from all gaiety, entertainments, games, public solemnities, wine, and music. They sat in gloomy and solitary places, stripped themselves of all external ornaments, put on a coarse black stuff by way of mourning, tore their hair, shaved their heads, rolled themselves in the dust and mire, sprinkled ashes on their heads, smote their breasts with their palms, tore their faces, and frequently cried out with a lamentable voice, reiterating the interjection ε, ε, ε, ε; hence funeral lamentations were called Ελεγοι; whence our word elegy. If they appeared in public, during the time of mourning, they had veils over their faces and heads. During the funeral procession, certain persons called εξαρχοι θρηνων marched before, and sung melancholy strains called ογοφυρμοι, Ιαλεμοι, Λινοι, and Αιλινοι. These vocal mourners sung thrice during the procession round the pile and round the grave. Flutes were also used to heighten the solemnity. The ancients had a remarkable way of mourning for soldiers slain in battle. The whole army attended the funeral solemnities, with their arms reversed, it being customary for mourners, in most of their actions, to behave themselves in a manner contrary to what was usual at other times. In those places where it was the fashion to wear long hair mourners were shaved; and, where others shaved, mourners wore long hair. The conjecture of those, therefore, is frivolous, who imagine that the soldiers turned the heads of their shields downwards, lest the gods, whose images were engraved upon them, should be polluted with the sight of a corpse; since not the gods only, but any other figures, were frequently represented on shields; nor did the few only near the corpse, but the whole company held their shields in the same position: not to mention that other arms were also pointed downwards. Potter, Archæol. Græc. tom. ii. The tokens of private grief among the Romans were the same as those among the Greeks. Black or dark brown were the colors of the mourning habits worn by the men; they were also common to the women. The mourning of the emperors at first was black. In the time of Augustus, the women wore white veils, and the rest of their dress black. From the time of Domitian they wore nothing but white habits, without any ornaments of gold, jewels, or pearls. The men let their hair and beards grow, and wore no wreaths of flowers on their heads while the days of mourning continued. The longest time of mourning was ten months: this regulation was established by Numa, and included his whole year. For a widow to marry during this time was accounted infamous. Mourning was not used for children who died under three years of age. From this age to ten they mourned as many months as the child was years old. A remarkable victory, or other happy event, occasioned the shortening of the time of mourning. The birth of a child, or the attainment of any remarkable honor in the family, certain feasts in honor of the gods, or the consecration of a temple, had the same effect. After the defeat at Cannæ, the senate decreed that mourning should not be worn for more than thirty days, that the loss might be forgotten as soon as possible. When public magistrates died, or persons of great note, and when any remarkable calamity happened, all public meetings were intermitted, the schools of exercise, baths, shops, temples, and all places of concourse, were shut up, and the whole city put on a face of sorrow; the senators laid aside the laticlave, and the consuls sat in a seat lower than ordinary. This was the custom at Athens also, and was observed upon the death of Socrates, not long after he had been sentenced to death by their judges. Præficæ, or mourning women (by the Greeks called θρηνων εξαρχοι), went about the streets: this was customary among the Jews, as well as the Greeks and Romans. Jerem. ix. 17.

The modes of mourning in modern times are various in various countries; as well as the colors used for that end. In Europe the ordinary color for mourning is black; in China it is white; in Turkey blue or violet; in Egypt yellow; in Ethiopia brown. White obtained formerly in Castile on the death of their princes. Herrera observes, that the last time it was used was in 1498, at the death of prince John. Each people assign their reasons for the particular color of their mourning: white is supposed to denote purity; yellow, that death is the end of human hopes, in regard that leaves when they fall, and flowers when they fade, become yellow: brown denotes the earth, whither the dead return: black, the privation of life, as being the privation of light; blue expresses the happiness which it is hoped the deceased does enjoy; and purple or violet, sorrow on the one side, and hope on the other, as being a mixture of black and blue.

MOURZOUK, a city of Central Africa, the capital of Fezzan. It is one of the greatest seats of the inland commerce of the desert: and the rendezvous of the intercourse between its northern and eastern regions. This trade is carried on by caravans, the frequent arrival of which, between October and February, render Mourzouk a scene of great business. From Egypt, and Tripoli, Bournou and Cassina, there arrives an annual caravan. That of Cassina is accompanied by a number of merchants, who penetrate across the Niger, often even to Ashantee. The arrival of a caravan produces a species of jubilee: placed in a chair of state, the sultan receives it without the walls; and each traveller, in passing, kisses his hand. The duties levied on the caravan forming a large part of the revenue of the sovereign. The wall of the city appears to have been anciently built of stone, and it retains the appellation of a Christian town; but presents to the eye a grotesque medley of vast ruins of ancient buildings, and humble cottages of earth and sand. A small river passes it, and it is well supplied with spring water. Long. 15° 35′ E., lat. 27° 28′ N.

MOUSE, *n. s.* & *v. n.* Mouse'ear, Mouse'hunt, Mouse'hole, Mous'er, Mouse'tail, Mouse'trap. Sax. muſ; Teut. *maus;* Belg. *muys;* Swed. and Lat. *mus;* Gr. μυς (μυω, to conceal). The oriental languages also have Pers. *mush;* Sans. *mushi, moosa.*—Thomson. A small quadruped, of which there are numerous species. See Mus. To mouse is to catch mice: mouse-ear and mouse-tail are plants: mouse-hunt and mouser both mean one that catches mice: mouse-hole, the hole made by this little animal; hence any small hole: mouse-trap, the trap or snare by which mice are taken.

The eagle England being in prey,
To her unguarded nest the weazel Scot
Comes sneaking, and so sucks her princely eggs;
Playing the *mouse* in absence of the cat.
Shakspeare.

A falcon towering, in his pride of place,
Was by a *mousing* owl hawked at and killed. *Id.*

You have been a *mouse-hunt* in your time,
But I will watch you. *Id. Romeo and Juliet.*

Many analogical motions in animals, I have reason to conclude, in their principle are not simply mechanical, although a *mouse-trap*, or Architas dove, moved mechanically. *Hale.*

He can creep in at a *mouse-hole*, but he soon grows too big ever to get out again. *Stillingfleet.*

Where *mice* and rats devoured poetick bread,
And with heroic verse luxuriously were fed.
Dryden.

He puts the prophets in a *mouse-hole:* the last man ever speaks the best reason.
Dryden and Lee's Œdipus.

A whole assembly of *mousing* saints, under the mask of zeal and good nature, lay many kingdoms in blood. *L'Estrange.*

Puss, a madam, will be a *mouser* still. *Id.*

Madam's own hand the *mouse-trap* baited.
Prior.

This structure of hair I have observed in the hair of cats, rats, and *mice*. *Derham's Physico-Theology.*

When you have fowl in the larder, leave the door open, in pity to the cat, if she be a good *mouser*.
Swift.

A poet's cat, sedate and grave
As poet well could wish to have,
Was much addicted to enquire
For nooks to which she might retire,
And where, secure as *mouse* in chink,
She might repose, or sit and think. *Cowper.*

Mouse, in naval affairs, is the name of a sort of knob, usually in the shape of a pear, wrought on the outside of a rope, by means of spun yarn, parsling, &c., and used to confine some other securely to the former, and prevent it from sliding along its surface. These mouses are particularly used on the stays of the lower mast, to prevent the eye from slipping up to the mast. There is also a smaller one round messengers, formed by intertwisting a small rope round the strands.

MOUSUL, or Mosul. See Mosul.

MOUSQUETAIRES, under the old French regime, were a body of horse soldiers originally raised by Louis XIII. in 1622 out of the carabineers. This corps consisted of two companies selected from the young men of noble extraction, each of 244 officers and privates. The horses of the first company, or mousquetaires gris, were white or dapple-gray; of the second, or mousquetaires noirs, black. The arms were, instead of the musket, a carbine, two pistols in the saddle-bow, and a sword, calculated for infantry and cavalry duty. The standard of the first company was a bomb falling upon a besieged town, with the motto, Quo ruit ad lethum: that of the second company was a bunch of arrows, with these words underneath, Alterius Jovis altera tela. The mousquetaires never served on horseback except when the king travelled. Several princes, and almost all the general officers and marshals of France, were indebted to this establishment for the first elements of military science. The corps was indeed considered as a military school for the French nobility. The English Roman Catholic noblemen who wished to enter the mousquetaires were obliged to prove certain degrees of nobility before they were admitted; but this was not the case in the Irish brigade.

MOUTH, *n. s., v. n.* & *v. a.* Mouthed', *adj.* Mouth-friend, *n. s.* Mouth-honor, Mouth'less, *adj.* Sax. muð; Gr. μυθος, speech.—Minsheu; Mæs. Goth. *munth;* Gothic *mun, month;* Swed. *mun;* Teut. and Belg. *mund, mond;* Scot. *mou;* Fr. *moue.* The central aperture of the head; hence any instrument of speaking, or the utterance of sound; any opening or entrance; and, in familiar language, a speaker, or principal orator; cry or voice; distortion of the mouth: to be 'down in the mouth,' is to be dejected, 'chop-fallen.' To mouth is to vociferate; boast, speak big or with a loud voice; speak affectedly; to chew; eat; seize or force with the mouth: mouthed is furnished with a mouth; and this adjective is used expressively in composition; as in foul-mouthed; mealy-mouthed (or bashful); hard-mouthed, &c. A mouth-friend is one distinguished for 'blessing his friends' only 'with a loud voice:' a mouthful, what the mouth can contain at once; hence any small quantity: mouth-honor, hollow, insincere civility or respect: mouthless, destitute of a mouth or entrance.

The dove came in; and lo, in her *mouth* was an olive leaf. *Gen.* viii. 11.

Call the damsel, and enquire at her *mouth*.
Id. xxiv. 57.

Corne carried let such as be poore go and glean,
And after thy cattel to *mouth* it up clean. *Tusser.*

He came and lay at the *mouth* of the haven, daring them to fight. *Knolles.*

Riotous madness,
To be entangled with those *mouth*-made vows,
Which break themselves in swearing.
Shakspeare.

Either our history shall with full *mouth*
Speak freely of our acts; or else our grave,
Like Turkish mute, shall have a tongueless *mouth*,
Not worshipped with a waxen epitaph. *Id.*

Coward dogs
Most spend their *mouths* when what they seem to threaten
Runs far before them. *Id. Henry V.*

Nay, an thou'lt *mouth*,
I'll rant as well as thou. *Id. Hamlet.*

Persevere, counterfeit sad looks,
Make *mouths* upon me when I turn my back.
Shakspeare.

Speak the speech as I pronounced it, trippingly on the tongue: but, if you *mouth* it, I had as lieve the town crier had spoke my lines. *Id.*

Death lines his dead chaps with steel,
The swords of soldiers are his teeth, his phangs;
And now he feasts *mouthing* the flesh of men. *Id.*

He keeps them, like an apple, in the corner of his jaw; first *mouthed* to be last swallowed. *Id. Hamlet.*

May you a better feast never behold,
You knot of *mouth-friends:* smoke and lukewarm water
Is your perfection. *Shakspeare.*

Honour, love, obedience, troops of friends,
I must not look to have; but, in their stead,
Curses not loud but deep, *mouth honour*, breath. *Id.*

Set a candle lighted in the bottom of a bason of water, and turn the *mouth* of a glass over the candle, and it will make the water rise. *Bacon's Natural History.*

In regard the cub comes forth involved in the chorion, a thick membrane obscuring the formation, and which the dam doth after tear asunder; the beholder at first sight imputes the ensuing form to the *mouthing* of the dam. *Browne.*

The boar
Deals glancing wounds; the fearful dogs divide,
All spend their *mouth* aloft, but not abide. *Dryden.*

When Progne's or Thyestes' feast they write,
And for the *mouthing* actors verse indite;
Thou neither like a bellows swellest thy face,
Nor can'st thou strain thy throat. *Id. Persius.*

Lucilius never feared the times;
Mutius and Lupus both by name he brought,
He *mouthed* them, and betwixt his grinders caught. *Dryden.*

You to your own Aquinum shall repair,
To take a *mouthful* of sweet country air. *Id.*

Every body's *mouth* will be full on it for the first four days, and in four more the story will talk itself asleep. *L'Estrange.*

But, upon bringing the net ashore, it proved to be only one great stone, and a few little fishes; upon this disappointment they were *down in the mouth.* *Id.*

A goat going out for a *mouthful* of fresh grass, charged her kid not to open the door till she came back. *Id.*

There can be no reason given, why a visage somewhat longer, or a wider *mouth*, could not have consisted with a soul. *Locke.*

Having frequently in our *mouths* the name eternity, we think we have a positive idea of it. *Id.*

There is a certain sentence got into every man's *mouth*, that God accepts the will for the deed. *South's Sermons.*

The *mouth* is low and narrow; but, after having entered pretty far in, the grotto opens itself in an oval figure. *Addison.*

Every coffee-house has some particular statesman belonging to it, who is the *mouth* of the street where he lives. *Id.*

You don't now thunder in the capitol,
With all the *mouths* of Rome to second thee. *Id.*

Why they should keep running asses at Coleshill, or how making *mouths* turns to account in Warwickshire more than any other parts of England, I cannot comprehend. *Id.*

I'll bellow out for Rome, and for my country,
And *mouth* at Cæsar till I shake the senate. *Id.*

The navigation of the Arabic gulph being more dangerous toward the bottom than the *mouth*, Ptolemy built Berenice at the entry of the gulf. *Id. on Coins.*

One tragick sentence if I dare deride,
Which Betterton's grave action dignified,
Or well *mouthed* Booth with emphasis proclaims. *Pope.*

A dissolution of all bonds ensued;
The curbs invented for the mulish *mouth*
Of head-strong youth were broken; bars and bolts
Grew rusty by disuse. *Cowper.*

'Tis sweet to hear the watch-dog's bark,
Bay deep-*mouthed* welcome as we draw near home;
'Tis sweet to know there is an eye will mark
Our coming, and look brighter when we come. *Byron.*

MOUTH, in anatomy, a part of the face, consisting of the lips, the gums, the insides of the cheeks, the palate, the salival glands, the os hyoides, the uvula, and the tonsils. See ANATOMY. The mouth in the several species of animals is nicely adapted to the several uses of speech, the gathering and receiving of food, the catching of prey, &c. In some creatures it is wide and large, in others little and narrow; in some it is formed with a deep incisure into the head, for the better catching and holding of prey, and more easy comminution of hard, large, and troublesome food; and in others with a shorter incisure, for the gathering and holding of herbaceous food. In birds it is neatly shaped for piercing the air; hard and horny, to supply the want of teeth; hooked, in the rapacious kind, to catch and hold their prey; long and slender in those that have their food to grope for in moorish places; and broad and long in those that search for it in the mud. Nor is the mouth less remarkable in insects; in some it is forcipated, to catch, hold, and tear the prey; in others aculeated, to pierce and wound animals, and suck their blood; in others strongly rigid, with jaws and teeth, to gnaw and scrape out their food, carry burdens, perforate the earth, nay the hardest wood, and even stones themselves, for houses and nests for their young.

MOUVANS (Paul Richard), surnamed the brave, a Protestant officer, born at Castellane in Provence, who made a considerable figure in the civil wars of France, during the sixteenth century. His brother, who was likewise a Protestant, having been killed in a popular tumult excited by the Romish priests at Draguignan, he took up arms to avenge his death; and, having assembled 2000 men, committed great devastations in Provence. Being pursued by count Tende, at the head of 6000 men, he took post in a convent strongly fortified by nature, resolved to defend himself to the last extremity. The count proposed an interview, to which Mouvans agreed, on condition that his brother's murderers should be punished, and that those who had taken up arms with him should not be molested. These terms being accepted, he dismissed his troops, reserving only a guard of fifty men. The parliament of Aix had received orders from the court to punish him capitally for being concerned in the conspiracy of Amboise. Baron de la Garde made an attempt to apprehend him; but he was repulsed with considerable loss. Mouvans at length retired to Geneva, where he lived for some time in tranquillity, nobly rejecting the splendid offers made him by the duke of Guise if he would join the Catholic party. He

returned to France at the recommencement of the troubles, after the massacre of Vassy in 1562, and continued to distinguish himself in the Protestant armies. His conduct at Sisteron, where he commanded together with captain Senas, when that city was besieged by the count de Sommerive, was particularly admired. After sustaining an assault of seven hours, in which the besiegers were repulsed with considerable loss, he left the city during the night with his troops, and those of the inhabitants who chose to accompany him. The number of the inhabitants amounted to 4000 men, women, and children. Musketeers were placed in the front and rear, while the defenceless and unarmed occupied the centre. They were often obliged to go out of the way, and to cross steep and rugged mountains, to avoid the ambuscades laid for them on the road. They stopped some days in the valleys of Angrone and Pragelas, where they were cordially received and supplied with provisions by the Vaudois. After a march of twenty-one days, under the greatest fatigue and famine, they at length arrived at Grenoble. Baron des Adrets sent them under an escort to Lyons, where they remained till the treaty of pacification. In 1568 Mouvans was defeated at Mesignai in Perigord, and lost his life in the engagement. Upon this occasion he commanded, together with Peter Gourde, the advanced guard of the Protestant army.

MOUZANGAIE, a large town on the western coast of Madagascar, belonging to the queen of the Seclaves. The trade carried on by Arab settlers is very considerable. Two vessels under the English flag arrive annually from Surat, with stuffs and silks, which are exchanged for slaves, gold, tortoise shell, &c.

MOW, *v. a.*, *v. n.* & *n. s.* } Sax. mapan, map;
MOW'BURN, *v. n.* } Goth. *matha*, *meida*; Belg. *maeyen*;
MOW'ER, *n. s.* } Teut. *mehen*; Isl. *maa*; Gr. αμαω. To cut down, as with a scythe; to cut down with haste or violence; to gather in harvest; put in a mow, rick, or heap: to mowburn is to heat or take fire in the mow: a mower, he who mows or cuts down.

It was the latter growth after the king's *mowings*.
Amos.

Learn skilfullie how
Each grain for to laie by itself on a *mow*.
Tusser.

Set *mowers* a mowing, where meadow is grown.
Id.

Of all the seed that in my youth was sowne,
Was nought but brakes and brambles to be *mown*.
Spenser.

The care you have
To *mow* down thorns that would annoy our foot,
Is worthy praise. *Shakspeare. Henry VI.*

What valiant foemen, like to autumn's corn,
Have we *mowed down*. *Id.*

The strawy Greeks, ripe for his edge,
Fall down before him like the *mower's* swath.
Shakspeare.

All else cut off
As Tarquin did the poppy-heads, or *mowers*
A field of thistles. *Ben Jonson's Catiline.*

Whatever
The scythe of time *mows* down, devour unspared.
Milton.

Gold, though the heaviest metal, hither swims:
Ours is the harvest where the Indians *mow*,
We plough the deep, and reap what others sow.
Waller.

Mowers and reapers, who spend the most part of the hot Summer days exposed to the sun, have the skin of their hands of a darker colour than before.
Boyle.

Thou and I, marching before our troops,
May taste fate to 'em; *mow* 'em out a passage,
Begin the noble harvest of the field. *Dryden.*

Stands o'er the prostrate wretch, and as he lay,
Vain tales inventing, and prepared to pray,
Mows off his head. *Id. Æneid.*

Beans when moist give in the *mow*.
Mortimer.

House it not green, lest it *mowburn*. *Id.*

Beat, roll and *mow* carpet-walks and cammomile.
Evelyn.

Where'er I gad, I Blouzelind shall view,
Woods, dairy, barn, and *mows* our passion knew.
Gay.

In simmer when the hay was *mawn*,
And corn waved green in ilka field,
While claver blooms white o'er the lea,
And roses blaw in ilka bield. *Burns.*

Mow, *n. s.* & *v. n.* Corrupted from Fr. *moue*, mouth. Wry mouth; distorted face. This word is still retained in Scotland.

The very abjects came together against me unawares, making *mows* at me.
Psalm xxxv. 15. *Common Prayer.*

Some Smithfield ruffian takes up some new *mowing* with the mouth, some wrenching with the shoulder, some fresh, new oath, that will run round in the mouth. *Ascham.*

Apes and monkeys,
'Twixt two such she's, would chatter this way, and
Contemn with *mows* the other. *Shakspeare.*

Those that would make *mows* at him while my father lived, give twenty ducats a piece for his picture in little. *Id.*

For every trifle are they set upon me;
Sometimes like apes that *mow* and chatter at me,
And after bite me. *Id. Tempest.*

Mow is a name given to several towns in Hindostan, the principal of which is in the district of Ferukabad, and called Mow Shemshereabad. It was formerly inhabited by the Bungush tribe of Afghauns. Long. 79° 18′ E., lat. 27° 34′ N.

Mow, a town of Hindostan, province of Allahabad, situated on the west bank of the Soorjew River, and celebrated for its manufacture of cotton and shirt cloth. Long. 83° 37′ E., lat. 25° 57° N.

MOWEE, one of the Sandwich Islands discovered by captain Cook, is 162 miles in circumference. A low isthmus divides it into circular peninsulas, of which the east is double the size of the west. The mountains in both rise to an exceeding great height, and may be seen at the distance of more than thirty leagues. The north shores, like those of Owyhee, afford no soundings, and the country presents the same appearance of verdure and fertility. Near the west point of the smaller peninsula is a spacious bay, with a sandy beach shaded with cocoa nut-trees. The country behind has a most romantic appearance, the hills rising almost perpendicularly in a great variety of peaked forms; and their steep sides and deep chasms between them are cover-

ed with trees. The tops of these hills are entirely bare, and of a reddish-brown color. The number of inhabitants is about 65,000. Long. 204° 4′ E., lat., 20° 50′ N.

MOWING. See Rural Economy.

MOXA, a celebrated eastern specific for the gout, which is burned on the part effected. It is a soft lanuginous substance, prepared in Japan from the young leaves of a species of artemisia, by beating them together when thoroughly dried, and rubbing them betwixt the hands till only the fine fibres are left. The down on the leaves of mullein, cotton, hemp, &c., will answer as well. A little cone of the moxa is laid upon the part, previously moistened, and set on fire at the top; it burns down with a temperate glowing heat, and produces a dark colored spot, the exulceration of which is promoted by applying a little garlic; the ulcer is left to discharge, or is healed, according to the intention in using the moxa. See Artemisia.

MOXOS, an extensive province of Peru, extending on each side of the Mamore, bounded by the government of Matto Grosso on the east, Cuzco and the Peruvian provinces on the west, and Chiquitos and Santa Cruz on the south. It is chiefly inhabited by warlike tribes of Indians, and contains the large oval lake Rogagualo, formed by an arm of the Rio Beni, which rises near La Paz, on the west side of the Andes, in 18° S. lat., and flowing north enters the Ucayale, their united streams afterwards joining the Apurimac. The banks of the Beni have many missionary settlements. This lake empties itself into the Mamore by a channel called De la Exaltacion. From Lake Rogagualo three other rivers take their rise, and flow into the Amazons on the north; viz. the Jutay, the Juruay, and the Puros. The temperature here is moist, and unhealthy, owing to the inundations of the rivers and lakes with which the country is covered, and epidemic fevers are frequent.

MOYLE, *n. s.* Or Mule, which see. An animal generated between the horse and the ass.

> Ordinary husbandmen should quit breeding of horses, and betake themselves to *moyles*; a beast which will fare hardly, live very long, draw indifferently well, carry great burthens, and hath also a pace swift and easy enough. *Carew.*
>
> 'Twould tempt a *moyle* to fury. *May.*

Moyle (Walter), a learned English writer in the eighteenth century, born in Cornwall in 1672. He was sent to Oxford, and thence removed to the Temple; where he studied the law, and the constitution of the English government. He soon became acquainted with the wits of the day, and joined some of them in translating Lucian. He undertook to furnish versions of four of that author's pieces, and executed them with spirit and accuracy. He was warmly attached to the principles of liberty, and in 1697 appeared as the coadjutor of Mr. Trenchard in writing a pamphlet entitled An Argument showing that a Standing Army is inconsistent with a Free Government, and absolutely destructive to the Constitution of the English Monarchy. He also translated Xenophon's Discourse upon Improving the State of Athens. He was for some time member of parliament for Saltash, and afterwards retired to his seat at Bake in Cornwall, and died in 1721. In 1726 his works were printed at London, in 2 vols. 8vo.

MOZART (John Chrysostom Wolfgang Theophilus), the celebrated German musician, was born at Saltzburg in 1756. He was taught music by his father, who was master of the chapel at Saltzburg. When but three years of age, young Mozart, attending to the lessons which his sister was receiving at the harpsichord, became captivated with the music; and when she had left the instrument would place himself at it, find the thirds, sound them with the liveliest joy, and employ whole hours at the exercise. His father, urged by such early and striking indications of genius, immediately began to teach him some little airs; and soon perceived that his pupil improved even beyond the hopes he had formed of him. Half an hour was generally sufficient for his acquiring a minuet or a little song, which, when once learned, he would of himself perform with taste and expression.

At the age of six years he had made such a progress as to be able to compose short pieces for the harpsichord, which his father was obliged to commit to paper for him. From that time nothing made any impression upon him but music; and infantine amusements lost all their attractions unless music had a share in them. He advanced from day to day, not by ordinary and insensible degrees, but with a rapidity which hourly excited new surprise in his parents—the happy witnesses of his progress. In 1762 he went with his father and sister to Munich, where he performed a concerto before the elector, which excited the admiration of the whole court; nor was he less applauded at Vienna, where the emperor called him the little sorcerer. His father gave him lessons only on the harpsichord; but he privately taught himself the violin; and his command of the instrument afforded the elder Mozart the utmost surprise, when he one day at a concert took a second violin, and acquitted himself with great address. His constant success in whatever he attempted produced an unbounded confidence in his own powers; and he had the laudable hardihood to undertake to qualify himself for the first violin, and did not long remain short of the necessary proficiency.

He had an ear so correct, that he felt the most minute discordancy; and such a fondness for study, that it was frequently necessary to take him by force from the instrument. This love of application never diminished. He every day passed a considerable time at his harpsichord, and generally practised till a late hour at night.

His father, returning home one day with a stranger, found little Mozart with a pen in his hand. 'What are you writing?' said he. 'A concerto for the harpsichord,' replied the child. 'Let us see it (rejoined the father); it is a marvellous concerto without doubt.' He then took the paper, and saw nothing at first but a mass of notes mingled with blots of ink by the mal-address of the young composer, who, unskilled in the management of the pen, had dipped it too freely in the ink; and, having blotted and smeared his paper, had endeavoured to make out his ideas with his fingers; but, on a closer examina

tion, his father was lost in wonder; and his eyes delighted and flowing with tears, became rivetted to the notes. 'See (exclaimed he to the stranger) how just and regular it all is! but it is impossible to play it; it is too difficult.' 'It is a concerto (said the child), and must be practised till one can play it.' In 1763 he went with his father to Paris, and thence to London, where he performed before his majesty, and published six sonatas for the harpsichord. In 1766 they returned to Saltzburg, and in 1769 young Mozart went to Italy, where the pope conferred on him the order of the Golden Spur, and the Philo-Harmonic Society of Bologna admitted him a member. At Rome he assisted at the Miserere in the Sixtine chapel; which performance is justly considered as the ne plus ultra of vocal music. He was prohibited from taking a copy of this Miserere, and therefore piqued himself on retaining it in his memory. Having heard it with attention, he went home, made out a MS. score from recollection, returned the next day to the chapel, heard the piece a second time, corrected the rough draught, and produced a transcript, which surprised all Rome. In 1781 he settled at Vienna, where he composed his principal works, and was much honored by the emperor Joseph II.

His first opera at Vienna was Die Entfichrung aus dern Serail, or the Rape of the Seraglio, in 1782, to German words. The second, Le Nozze di Figaro, in four acts. The third, the Schauspiel Director, or the Manager at the Playhouse, in 1786. Il Don Giovanni, in 1787. La Clemenza di Tito, a serious opera. Cori Fantutti, comic. Die Zauber Flute, or Flauto Magico. Idomeneo, a serious opera, &c.

It was not till the year 1782, that he began to compose at Vienna for the national theatre; at first chiefly instrumental music; but, on its being discovered how well he could write for the voice, he was engaged by the nobility and gentry first to compose comic operas, sometimes to German words, and sometimes Italian. His serious operas, we believe, were all originally composed to Italian words. He died in 1791.

After his decease, when Haydn was asked by Broderip, whether Mozart had left any MS. compositions behind him that were worth purchasing, as his widow had offered his unedited papers at a high price to the principal publishers of music throughout Europe; Haydn eagerly said, 'Purchase them by all means. He was truly a great musician. I have been often flattered by my friends with having some genius; but he was much my superior.'

MOZDOK, a town and district of the government of Caucasus, on the left bank of the Terek, built in 1763. It terminates the military line of defence formed along this river. Vines are raised here, and manufactures of leather, brandy, and silk are considerable: some silk-worms also are bred; but the principal commerce is with the mountaineers of Caucasus. Population estimated at 3000 persons chiefly Armenians, Georgians, and baptised Circassians. Eight miles east of Ekaterinograd.

MSTA, a navigable river of Northern European Russia, in the government of Novgorod, runs into the lake Ilmen, near Lipinskoi. A canal, dug in the reign of Peter I., joined it to the Tivertza; and a second canal, finished in 1804, connects it with the Volchov.

MSTISLAVL, a town of Russian Lithuania, government of Mohilev, on the Vachra. It has a Jesuit's college, a monastery, six Greek churches, and a synagogue of Jews. It was formerly the capital of a palatinate. Inhabitants 4000. Sixty miles north-east of Mohilev.

MTZENSK, a well-built town of European Russia, in the government of Orel. It has 5600 inhabitants, and the environs are productive in hemp and corn, which give rise to a considerable traffic. Thirty-two miles N. N. E. of Orel.

MUCH, *adj.*, *adv.* & *n. s.* } Sax. mycell, mycle; Goth. *mik*; Scot. *mickle*; Span. *mucho*;
MUCH'WHAT, *adv.* }
MUCH'EL, *adj.* }
Teut. *mich*; Swed. *mik*. The Gothic *auk*, *eyk*, says Mr. Thomson, signifying increase, augmentation, to which *ma*, more, may have been prefixed. Great or large in number or quantity; long in time; opposed both to *few* and *little*: as an adverb it means in a great degree; by far; and exaggerates the comparative degree of adjectives; to a certain degree; nearly; often; long: as a substantive, a great number or multitude; a great quantity; more than enough; a comparative or assignable quantity; an extraordinary occurrence or thing: 'much at one' is nearly at one: 'to make much of,' to treat with marked respect or kindness: muchwhat, a deservedly obsolete word for nearly: much is also used in composition with participles active and passive: when passively, as in 'much loved, much enjoyed,' it seems to be an adverb; when actively, as 'much enduring,' it may be more properly considered as a noun: muchel is the old mode of writing much.

Joye ye in that day, and be ye glad; for lo youre mede is *myche* in hevene. *Wiclif. Luk.* 6.

Isaac, thou art *much* mightier than we. *Gen.* xxvi. 16.

The waters covered the chariots and horsemen; there remained not so *much* as one. *Exod.* xiv. 28.

They gathered against Moses and Aaron, and said, Ye take too *much* upon you. *Num.* xvi. 3.

Thou shalt carry *much* seed out, and shalt gather but little in; for the locust shall consume it. *Deut.* xxiv. 38.

He charged them that they should tell no man; but the more he charged them, so *much* the more a great deal they published it. *Mark* vii. 36.

We have had fathers of our flesh, which corrected us, and we gave them reverence; shall we not *much* rather be in subjection unto the Father of spirits, and live? *Hebrews* xii. 9.

Though he knew his discourse was to entertain him from a more streight parley, yet he durst not but kiss his rod, and gladly make *much* of that entertainment which she allotted unto him. *Sidney.*

He had in arms abroad won *muchel* fame,
And filled far lands with glory of his might.
Faerie Queene.

Let us know
If 'twill tie up thy discontented sword,
And carry back to Sicily *much* tall youth,
That else must perish here.
Shakspeare. Antony and Cleopatra.

Thou thinkest it *much* to tread the ooze
Of the salt deep. *Id. Tempest.*

When thou camest first,
Thou stroaked'st, and madest *much* of me; and would'st give me
Water with berries in't. *Id.*

It was *much* that one that was so great a lover of peace should be happy in war. *Bacon's Henry VII.*

Full of doubt I stand,
Whether I shall repent me now of sin
By me done or occasioned, or rejoice
Much more, that *much* more good thereof shall spring. *Milton.*

There is, said Michael, if thou well observe,
The rule of not too *much*, by temperance taught. *Id.*

Henceforth I fly not death, nor would prolong
Life *much*, bent rather how I may be quit
Fairest and easiest of this cumbrous charge. *Id.*

So spake, so wished, *much*-humbled Eve, but fate
Subscribed not. *Id.*

The motion being conveyed from the brain of man to the fancy of another, it is there received; and the same kind of strings being moved, and *muchwhat* after the same manner as in the first imaginant. *Glanville's Scepsis.*

The bigness of her body and bill, as likewise the form of them, is *muchwhat* as follows. *More.*

It is *much*, if men were from eternity, that they should not find out the way of writing all that long duration which had past before that time. *Tillotson.*

All left the world *much* as they found it, ever unquiet, subject to changes and revolutions. *Temple.*

Somewhat awed, I shook with holy fear,
Yet not so *much* but that I noted well
Who did the most in song and dance excel. *Dryden.*

To thee thy *much*-afflicted mother flies,
And on thy succour and thy faith relies. *Id.*

Your *much*-loved fleet shall soon
Besiege the petty monarchs of the land. *Id.*

You pine, you languish, love to be alone,
Think *much*, speak little, and in speaking sigh. *Id.*

Nor grudge I thee the *much* the Grecians give,
Nor murmuring take the little I receive. *Id.*

The fate of love is such,
That still it sees too little or too *much*. *Id.*

Then prayers are vain as curses, *much at one*
In a slave's mouth, against a monarch's power. *Id.*

I am well served, to take so *much* pains for one resolved to make away with himself. *L'Estrange.*

If we will disbelieve every thing, because we cannot know all things, we shall do *muchwhat* as wisely as he who would not use his legs because he had no wings to fly. *Locke.*

The matter of the universe was created before the flood; and, if any more was created, then there must be as *much* annihilated to make room for it. *Burnet's Theory.*

Who is there of whom we can with any rational assurance, or perhaps so *much* as likelihood, affirm, here is a man whose nature is renewed, whose heart is changed. *South.*

Unless he can prove cælibatum a man or a woman, this Latin will be *muchwhat* the same with a solecism. *Atterbury.*

Homer shall last, like Alexander, long,
As *much* recorded, and as often sung. *Granville.*

Sad from my natal hour my days have ran,
A *much* afflicted, *much* enduring man. *Pope.*

You are pressed for the sea-service, and got off with *much* ado. *Swift's Rules to Servants.*

If his rules of reason be not better than his rules for health, he is not like to be *much* followed. *Baker on Learning.*

MUCIC Acid, in chemistry was formerly known by the name of saccholactic acid, because first obtained from sugar of milk; but as all the gums appear to afford it, and the principal acid to be obtained from sugar of milk is the oxalic, chemists in general now distinguish it by the name of mucic acid.

It was discovered by Scheele. Having poured twelve ounces of dilute nitric acid on four ounces of powdered sugar of milk, in a glass retort on a sand-bath, the mixture became gradually hot and at length effervesced violently, and continued to do so for a considerable time after the retort was taken from the fire. It is necessary therefore to use a large retort, and not to lute the receiver too tight. The effervescence having nearly subsided, the retort was again placed in the sand-bath, and the nitric acid distilled off, till the mass had acquired a yellowish color. This exhibiting no crystals, eight ounces more of the same acid were added, and the distillation repeated, till the yellow color of the fluid disappeared. As the fluid was inspissated by cooling, it was redissolved in eight ounces of water, and filtered. The filtered liquor held oxalic acid in solution, and seven drachms and a half of white powder remained on the filter. This powder was the mucic acid.

If one part of gum be heated gently with two of nitric acid, till a small quantity of nitrous gas and of carbonic acid is disengaged, the dissolved mass will deposit on cooling the mucic acid. According to Fourcroy and Vauquelin, different gums yield from $\frac{14}{100}$ths to $\frac{28}{100}$ths of this acid.

This pulverulent acid is soluble in about sixty parts of hot water, and by cooling a fourth part separates in small shining scales, that grow white in the air. It decomposes the muriate of barytes, and both the nitrate and muriate of lime. It acts very little on the metals, but forms with their oxides salts scarcely soluble. It precipitates the nitrates of silver, lead, and mercury. With potash it forms a salt soluble in eight parts of boiling water, and crystallisable by cooling. That of soda requires but five parts of water, and is equally crystallisable. Both these salts are still more soluble when the acid is in excess. That of ammonia is deprived of its base by heat. The salts of barytes, lime, and magnesia, are nearly insoluble. This acid has been analysed recently with much care: it is composed of according to

	Hydrogen.		Carbon.		Oxygen.		
Lussac	3·62	+	33·69	+	62·69	=	100

According to,

Berzelius	5·105	+	33·430	+	61·465	=	100

From saclactate of lead, Berzelius has inferred the prime equivalent of the acid to be 13·1.

MU'CID, *adj.* } Lat. *mucidus*; Fr. *mucre*, *mucilage*. Slimy; mouldy: sliminess or mouldiness: the first two words are of rare occurrence: mucilage signifies the viscous part of plants; any thing slimy, viscous, or tenacious: the adjective corresponding.
MU'CIDNESS, *n. s.*
MU'CILAGE,
MUCILAG'INOUS, *adj.*

Dissolution of gum tragacanth, and oil of sweet almonds, do commingle, the oil remaining on the top till they be stirred, and make the *mucilage* somewhat more liquid. *Bacon.*

Both the ingredients improve one another; for the *mucilage* adds to the lubricity of the oil, and the oil preserves the *mucilage* from inspissation.
Ray on the Creation.

There is a two-fold liquor prepared for the inunction and lubrification of the heads or ends of the bones; an oily one, furnished by the marrow; and a *mucilaginous*, supplied by certain glandules seated in the articulations. *Id.*

Your alaternus seed move with a broom, that the seeds clog not together, unless you will separate it from the *mucilage*, for then you must a little bruise it wet. *Evelyn.*

There is a sort of magnetism in all, not *mucilaginous* but resinous gums, even in common rosin.
Grew's Cosmologia.

Mucilaginous glands are of two sorts: some are small, and in a manner miliary glands; the other sort are conglomerated, or many glandules collected and planted one upon another. *Quincy.*

MUCK, *n. s.* & *v. a.* MUCK'ER, *v. n.* MUCK'ERER, *n. s.* MUCK'SWEAT, MUCK'WORM, MUCK'Y, *adj.* Sax. moec. meox; Gothic *myk;* Danish *moeg;* Swedish *mok.* Perhaps the Goth. *eyk;* Swed. *ok* (an ox), and *mow*, a heap, i. e. of dung. See OX. Dung; filth; any thing low and mean; to manure with dung. Mucker, from muck, means in Chaucer to heap up, and hence, in some other of our old writers, to scramble for, or hoard money. A muckerer is an admirable old word for a miser; a mean, dirty, saver of money. A muck-sweat is a profuse perspiration; one that moistens the whole body. Muck-worm, originally a dung-worm, metaphorically, a miser; a curmudgeon. Mucky is nasty; filthy; besmeared with dirt.

Hale out thy *mucke*, and plow out thy ground.
Tusser.

Thy garden-plot lately wel trencht and *muckt*,
Would now be twifallowed. *Id.*

Reward of worldly *muck* doth foully blend,
And low abase the high heroick spirit
That joys for crowns. *Faerie Queene.*

Mucky filth his branching arms annoys,
And with uncomely weeds the gentle wave accloys.
Id.

It is usual to help the ground with *muck*, and likewise to recomfort with *muck* put to the roots; but to water it with *muck* water, which is like to be more forcible, is not practised. *Bacon.*

Old Euclio in Plautus, as he went from home, seeing a crow scrat upon the *muck*-hill, returned in all haste, taking it for an ill sign his money was digged up. *Burton.*

The swine may see the pearl, which yet he values but with the ordinary *muck*. *Glanville's Apology.*

Frontless and satire-proof he scowers the streets,
And runs an Indian *muck* at all he meets. *Dryden.*

There are, who
Rich foreign mold, on their ill-natured land
Induce laborious, and with fatt'ning *mu k*
Besmear the roots. *Philips.*

Morning insects, that in *muck* begun,
Shine, buzz, and fly-blow in the setting sun.
Pope.

Worms suit all conditions;
Misers are *muckworms*, silk-worms beaus,
And death-watches physicians.
Swift's Miscellanies.

MUCK, or RUNNING A MUCK, a practice that formerly prevailed in Batavia. To run a muck, in the original sense of the word, was to get intoxicated with opium, and then rush into the street with a drawn weapon, and kill every one that came in the way, till the party himself was either killed or taken prisoner. If the officer took one of these amocks or mohawks (as they have been called by an easy corruption) alive, he received a considerable reward; but such was the fury of their desperation that this seldom happened. See AMUCK.

MUCILAGE, in pharmacy, is in general any viscid or glutinous liquor.

MUCK'ENDER, *n. s.* Span. *mocadero;* low Lat. *muccinium*. A handkerchief.

For thy dull fancy a *muckender* is fit,
To wipe the slabberings of thy snotty wit.
Dorset.

MUCKUNDRA, a town of Hindostan, in Malwah, belonging to the Mahrattas. It is romantically situated in a circular valley, surrounded by steep hills, and accessible only by narrow passes on the north and south. These are well defended by batteries: this being the only pass within many miles, through a long range of mountains, which divide Malwah from Harowty. At Chundkairy, fourteen miles from this place, is held a large fair for horses and cattle. Long. 76° 12′ E., lat. 24° 46′ N.

MUCKWANY, a mountainous district of Northern Hindostan, situated between 26° and 27° of N. lat., and bounded on the south by Bahar. It is subject to Nepaul.

MUCOR, in botany, a genus of the order of fungi, and cryptogamia class of plants. This fungus has vesicular heads supported by footstalks. SEED naked and coherent. There are twelve species; the most remarkable are,

1. M. crustaceus, the fingered mould, is frequent upon corrupted food of various kinds. It is of a white aqueous color; the stalks single, each supporting at the top four or five lace-like radii, diverging from the same point or centre.

2. M. glaucus, the gray cluster-headed mould, is found on rotten apples, melons, and other fruits; also upon decayed wood, and the stalks of wheat. These are of a pellucid gray color; the stalks generally single, supporting a spherical ball, which, when magnified, appears to be compounded of numerous fine, moniliform, lace-like radii.

3. M. lichenoides, the little black pin-headed mucor. This species grows in groups near to each other, in chasms of the barks of old trees, and upon old park-pales. The stalks are black, about two lines in height; bearing each a single head, sometimes a double or treble one, of the size of mustard or poppy seeds, of a roundish figure at first, but, when burst, often flattish or truncated, and of a black color. The internal powdered down is black, with a tinge of green.

4. M. mucedo, the common gray mould, grows on bread, fruits, plants, and other substances in a putrid state. It grows in clusters; the stalks a quarter of an inch high, pellucid, hollow, and cylindrical; supporting each a single globular head, at first transparent, afterwards dark gray; which bursts with elastic force, and ejects small round seeds discoverable by the microscope.

5. M. septicus, the yellow frothy mucor, is found on the leaves of plants, such as ivy and beech, &c.; sometimes upon dry sticks, and frequently upon the tan or bark in hot-houses. It is of no certain size or figure, but of a fine yellow color, and a substance resembling at first cream beat up into froth. In twenty-four hours it acquires a thin filmy coat, becomes dry, and full of a sooty powder adhering to downy threads. The seeds under the microscope appear to be globular. Haller ranks it under a new genus, which he terms fuligo; the characters of which are, that the plants contained in it are soft, and like butter at first, but soon change into a black sooty powder.

6. M. sphærocephalus, the gray round-headed mucor, growing upon rotten wood, and sometimes upon decayed plants and mosses. The stalks are generally black, about a line in height; bearing each at the top a spherical ball about the size of a pin's head; its coat or rind is covered with a gray powder, and contains within a black or fuscous spongy down. The coat bursts into a ragged irregular margin.

MU'COUS, *adj.* } Latin *mucosus*. Slimy;
MUCUS, *n. s.* } viscous; tenacious. Mucus is more properly used, according to Quincy, for that which flows from the papillary processes through the os cribriforme into the nostrils; but also used for any slimy liquor or moisture, as that which daubs over and guards the bowels and all the chief passages in the body: it is separated by the mucilaginous glands.

The salamander being cold in the fourth, and moist in the third degree, and having also a *mucous* humidity above and under the skin, may awhile endure the flame. *Browne.*

In the action of chewing, the *mucus* mixeth with the aliment: the *mucus* is an humour different from the spittle, and the great quantity of air which it contains, helps to dissolve the aliment. *Arbuthnot on Aliments.*

About these the nerves and other vessels make a fine web, covered over with a *mucous* substance, to moisten these papillæ pyramidales. *Cheyne.*

MUCUS, a mucilaginous liquor secreted by certain glands, and serving to lubricate many of the internal cavities of the body. In its natural state it is generally limpid and colorless; but, from certain causes, will often assume a thick consistence and whitish color like pus.

Mucus is glutinous, thready, and of a salt savor; it reddens paper of turnsole, contains a great deal of water, muriate of potassa and soda, lactate of lime, of soda, and phosphate of lime. According to Fourcroy and Vauquelin, the mucus is the same in all the mucous membranes. On the contrary, Berzelius thinks it variable according to the points from which it is extracted.

The mucus forms a layer of greater or less thickness at the surface of the mucous membranes, and it is renewed with more or less rapidity; the water it contains evaporates, under the name of mucous exhalation; it also protects these membranes against the action of the air, of the aliment, the different glandular fluids, &c.; it is, in fact, to these membranes nearly what the epidermis is to the skin. Independently of this general use, it has others that vary according to the parts of mucous membranes. Thus the mucus of the nose is favorable to the smell, that of the mouth gives facility to the taste, that of the stomach and the intestines assists in the digestion, that of the genital and urinary ducts serves in the generation and the secretion of the urine, &c.

A great part of the mucus is absorbed again by the membranes which secrete it; another part is carried outwards, either alone, as in blowing the nose, or spitting, or mixed with the pulmonary transpiration, or else mixed with the excremental matter, or the urine, &c.

Animal mucus differs from that obtained from the vegetable kingdom, in not being soluble in water, swimming on its surface, nor capable of mixing oil with water, and being soluble in mineral acids, which vegetable mucus is not.

Mucus was considered by Dr. Birtock to be merely a modification of gelatin, but they are perfectly distinct fluids. The subacetate of lead does not affect gelatin; on the other hand tannin, which is a delicate test of gelatin, does not affect mucus. Both these reagents, however, precipitate albumen; but the oxymuriate of mercury, which will indicate the presence of albumen, dissolved in 2000 parts of water, precipitates neither mucus nor gelatin. Thus we have three distinct and delicate tests for these three different principles.

Gum appears to resemble mucus in its properties. One grain of gum-arabic, dissolved in 200 of water, was not affected by oxymuriate of mercury, or by tannin, but was immediately precipitated by subacetate of lead.

MU'CRO, *n. s.* } Lat. *mucro*. A point.
MUCRONA'TED, *adj.* } Mucronated is pointed.

The *mucro* or point of the heart inclineth unto the left, by this position it giving way unto the ascension of the midriff. *Browne's Vulgar Errours.*

Gems are here shot into cubes consisting of six sides, and *mucronated* or terminating in a point. *Woodward.*

MUD, *n. s.* & *v. a.*
MUD'DILY, *adv.*
MUD'DINESS, *n. s.*
MUD'DLE, *v. a.*
MUD'DY, *adj.* & *v. a.*
MUD'SUCKER, *n. s.*
MUD'WALL,
MUD'WALLED, *adj.*
} Belg. *moder, modder*; Goth. and Swed. *mod, modd*; Teut. *moder*; Lat. *madeo*; Gr. μαδαω. Slime or dirt deposited by water; earth and water mixed; to cover or bury in mud; make turbid or filthy. Muddily is turbidly. To muddle, to make foul; turbid; confused: hence to stupify; to make half drunk. Muddy has a similar verbal signification: as an adjective, it follows the senses of mud. Mud-sucker is a kind of sea-fowl. A mud wall, one compounded principally of dried mud.

Who can a pure and crystal current bring,
From such a *muddy* and polluted spring? *Sandys.*

The purest spring is not so free from *mud*,
As I am clear from treason. *Shakspeare. Henry VI.*

I wish
Myself were *mudded* in that oozy bed,
Where my son lies. *Id. Tempest.*

A woman moved is like a fountain troubled,
Muddy, ill-seeming, thick, bereft of beauty. *Shakspeare*

There's not the smallest orb which thou beholdest,
But in his motion like an angel sings,
Still quiring to the young eyed cherubim;
Such harmony is in immortal sounds;
But, whilst this *muddy* vesture of decay
Doth grossly close us in, we cannot hear it. *Id.*

Do'st think I am so *muddy*, so unsettled,
To appoint myself in this vexation.
Id. Winter's Tale.

The people *muddied*
Thick and unwholesome in their thoughts and whispers. *Shakspeare.*

Water in *mud* doth putrefy, as not able to preserve itself. *Bacon.*

If you choose, for the composition of such ointment, such ingredients as do make the spirits a little more gross or *muddy*, thereby the imagination will fix the better. *Id.*

I shall not stir in the waters which have been already *mudded* by so many contentious enquiries.
Glanville's Scepsis.

I strove in vain the' infected blood to cure;
Streams will run *muddy* where the spring's impure.
Roscommon.

Lucilius writ not only loosely and *muddily*, with little art, and much less care, but also in a time which was not yet sufficiently purged from barbarism.
Dryden.

Till, by the fury of the storm full blown,
The *muddy* bottom o'er the clouds is thrown. *Id.*

His passengers
Exposed in *muddy* weeds, upon the miry shore.
Id.

The neighbourhood told him, he did ill to *muddle* the water and spoil the drink. *L'Estrange.*

The channel was dried up, and the fish left dead and stinking in the *mud*. *Id.*

Excess, either with an apoplexy, knocks a man on the head; or with a fever, like fire in a strong-water-shop, burns him down to the ground, or if it flames not out, charks him to a coal; *muddies* the best wit, and makes it only to flutter and froth high.
Grew's Cosmologia.

If conscience contract rust or soil, a man may as well expect to see his face in a *mudwall* as that such a conscience should give him a true report of his condition. *South.*

Our next stage brought us to the mouth of the Tiber; the season of the year, the *muddiness* of the stream, with the many green trees hanging over it, put me in mind of the delightful image that Virgil has given, when Æneas took the first view of it.
Addison on Italy.

A fountain in a darksome wood,
Nor stained with falling leaves nor rising *mud*.
Addison.

Yet let the goddess smile or frown,
Bread we shall eat, or white or brown;
And in a cottage, or a court,
Drink fine champagne, or *muddled* port.
Prior.

As folks from *mudwalled* tenement
Bring landlords pepper-corn for rent;
Present a turkey or a hen,
To those might better spare them ten. *Id.*

The force of the fluid will separate the smallest particles, so as to leave vacant interstices, which will be again filled up by particles carried on by the succeeding fluid, as a bank by the *mud* of the current, which must be reduced to that figure which gives least resistance to the current. *Arbuthnot.*

I was for five years often drunk, always *muddled*; they carried me from tavern to tavern.
Id. History of John Bull.

In all water-fowl, their legs and feet correspond to that way of life; and in *mudsuckers*, two of the toes are somewhat joined, that they may not easily sink. *Derham.*

Epicurus seems to have had his brains so *muddled* and confounded, that he scarce ever kept in the right way, though the main maxim of his philosophy was to trust to his senses, and follow his nose.
Bentley's Sermons.

The black
A more inferior station seeks,
Leaving the fiery red behind,
And mingles in her *muddy* cheeks.
Swift's Miscellanies.

Turn the bottle upside down; by this means you will not lose one drop, and the froth will conceal the *muddiness*. *Swift.*

MUDDIE, a fortified town of Hindostan, in Gujerat, near the morass called the Run. The soil is good here; but the country is nearly desolate, on account of the robbers who infest it. Long. 69° 22′ E., lat. 22° 5′ N.

MUDO (Hernandez), an eminent Spanish painter under Philip II. He was a disciple of Titian; and made such progress, that, though born deaf and dumb, he was employed by Philip many years in the palace of the Escurial, where his performances procured him great honor and emolument.

MUE, *v. a.* Fr. *muer.* To MOULT, which see.

MUFF, *n. s.* Teut. and Swed. *muff*; Dan. *muffe*; Belg. *moff.* A soft and warm cover for the hands in winter.

What! no more favours, not a ribbon more,
Not fan, nor *muff*? *Suckling.*

Feel but the difference soft and rough,
This a gantlet, that a *muff*. *Cleaveland.*

The lady of the spotted *muff* began.
Dryden.

A child that stands in the dark upon his mother's *muff*, says he stands upon something, he knows not what. *Locke.*

MUF'FIN, *n. s.* Perhaps from muff. A soft and fine kind of bread.

Muffins, rolls, or bread, if stale, may be made to taste new, by dipping in cold water, and toasting or heating in an oven, till the outside be crisp.
Domestic Cookery.

MUF'FLE, *v. a.* & *v. n.* } Fr. *moufle*; Teut.
MUF'FLER, *n. s.* } *muff*, *maule*; Goth. *mangle*, the mouth. To cover or shield from the weather, probably from covering the mouth; hence to conceal, involve, blindfold: as a neuter verb, to speak inwardly or indistinctly: a muffler is, a cover for the face.

The Lord will take away your tinkling ornaments, chains, bracelets, and *mufflers*. *Isaiah* iii. 19.

No *muffling* clouds, nor shades infernal, can
From his inquiry hide offending man. *Sandys.*

We've caught the woodcock, and will keep him *muffled*. *Shakspeare. All's Well that Ends Well.*

Alas that love, whose view is *muffled* still,
Should without eyes see pathways to his ill.
Shakspeare.

Fortune is painted with a *muffler* before her eyes, to signify to you that Fortune is blind.
Id. Henry V.

This is one of the strongest examples of a personation that ever was: although the king's manner of shewing things by pieces, and by dark lights, hath

so *muffled* it, that it hath left it almost as a mystery. *Bacon's Henry VII.*

And what marvel, when that which is acted in the streets, but once, by a few *muffled* penitents, is pretended to be done in cells and closets, as in a set course of discipline, by the most of their strict votaries? *Bp. Hall.*

His *muffled* feature speaks him a recluse,
His ruins prove him a religious house.
Cleaveland.

Our understandings lie grovelling in this lower region, *muffled* up in mists and darkness. *Glanville.*

The freedom or apertness and vigour of pronouncing, as in the Bocca Romana, and giving somewhat more of aspiration; and the closeness and *muffling*, and laziness of speaking, render the sound of speech different. *Holder.*

Bright Lucifer
That night his heavenly form obscured with tears;
And since he was forbid to leave the skies,
He *muffled* with a cloud his mournful eyes.
Dryden.

You must be *muffled* up like ladies. *Id.*

One *muffled* up in the infallibility of his sect, will not enter into debate with a person that will question any of those things which to him are sacred. *Locke.*

Loss of sight is the misery of life, and usually the forerunner of death: when the malefactor comes once to be *muffled*, and the fatal cloth drawn over his eyes, we know that he is not far from his execution. *South.*

The face lies *muffled* up within the garment. *Addison.*

They were in former ages *muffled* up in darkness and superstition. *Arbuthnot's History of John Bull.*

Mr. Hales has found out the best expedient for preventing immediate suffocation from the tainted air, by breathing through *mufflers*, which imbibe these vapours. *Id. On Air.*

New plots and foul conspiracies awake,
And *muffling* up their horrors from the moon,
Havoc and devastation they prepare,
And kingdoms tottering in the field of blood.
Young.

MUFFLE, in chemistry, a vessel much used in some metallurgic operations. In figure it represents an oblong arch or vault, the hinder part of which is closed by a semicircular plane, and the lower part or floor of which is a rectangular plane. It is a little oven, placed horizontally in assay and enamelling furnaces, so that its open side corresponds with the door of the fire-place of the furnace. Under this arched oven small cupels or crucibles are placed; and the substances contained are thus exposed to heat without contact of fuel, smoke, or ashes. The muffle must have holes, that the assayer may look in; and the fore part of it must be always quite open, that the air may act better in conjunction with the fire, and be incessantly renewed; the apertures in the muffle serve also for the regimen of the fire, for the cold air, rushing into the large opening before, cools the bodies in the vessel; but if some coals are put in it, and its aperture before be then shut, with a door fitted to it, the fire will be increased to the highest degree, much more quickly than it can be by the breathing holes of the furnace. See ASSAYING.

MUFTI, or MUPHTI, the chief of the ecclesiastical order, or primate of the mussulman religion. The authority of the mufti is very great in the Ottoman empire; for even the sultan himself, if he would preserve any appearance of religion, cannot, without hearing his opinion, put any person to death. In all actions, especially criminal ones, his opinion is required, by giving him a writing in which the case is stated under feigned names; which he subscribes with the words, he shall, or shall not be punished. Such outward honor is paid to the mufti, that the grand signior himself rises up to him, and advances seven steps towards him when he comes into his presence. He alone has the honor of kissing the sultan's left shoulder, whilst the prime vizier kisses only the hem of his garment. When the grand signior addresses any writing to the mufti, he styles him the esad, the wisest of the wise, instructed in all knowledge, the most excellent of excellents, the spring of virtue, and of true science, with many similar titles. The election of the mufti is solely in the grand signior, who presents him with a vest of rich sables, &c. If convicted of treason, or any great crime, he was formerly put into a mortar kept for that purpose in the Seven Towers at Constantinople, and pounded to death. The mufti is the sovereign interpreter of the Alcoran, and decides all questions of the law: his decisions are called fetfas. He takes place of the bashaws; and his authority is often terrible to the grand signior himself. It is he who girds on the sword to the grand signior's side on his accession to the throne, which ceremony answers to the coronation of our kings; reminding him at the same time of the obligation of defending the religion of the prophet, and of propagating his creed. This eminent place might serve, without doubt, as a counterpoise to the almost absolute and unlimited authority of the sovereign, had not the sultan the power of appointing the mufti, of deposing him, of banishing him, and even of putting him to death. His fetfas are, therefore, forced from him by the wish of preserving his place, and by the fear of death; nevertheless, more than once, religious zeal and probity have induced some to present themselves to the sultan, and to make to him observations and remonstrances; some even, more fanatic and more courageous, braving every danger, have refused to condescend to his wishes. History affords various examples of sultans and viziers killed or deposed through the great influence of the muftis on public opinion; but it likewise presents more muftis who have been victims of their zeal for religion, and of their attachment to the interests of the people. The mufti is much respected by the sultan, and also by the people, who submit blindly to his fetfas.

MUG', *n. s.* } Belg. *mussic*, a measure. Skin-
MUG'HOUSE. } ner says, from Welsh *mugl*, warm. A drinking cup: mughouse, a low alehouse.

Ah Bowzabee, why didst thou stay so long?
The *mugs* were large, the drink was wond'rous strong.
Gay.

Our sex has dared the *mughouse* chiefs to meet,
And purchased fame in many a well fought street.
Tickel.

MUG'GY, *adj.* Isl. *mugga.* Dr. Johnson

thinks corrupted from mucky. Moist; damp; mouldy. A low word.

Cover with *muggy* straw to keep it moist.
Mortimer.

MUGGLETONIANS, a sect which arose in England about 1657; so named from their leader Muggleton, who, with his associate Reeves, set up for prophets, pretending to have an absolute power of saving and condemning whom they pleased; and giving out that they were the two last witnesses of God that should appear before the end of the world.

MU'GIENT, *adj.* Lat. *mugiens.* Bellowing.

That a bittern maketh that *mugient* noise or bumping, by putting its bill into a reed, or by putting the same in water or mud, and after a while retaining the air, but suddenly excluding it again, is not easily made out. *Browne.*

MUGIL, the mullet, in ichthyology, a genus of fishes belonging to the order of abdominales. The lips are membranaceous, the inferior being carinated inwards; they have no teeth; the branchiostege membrane has seven crooked rays; the opercula are smooth and round; and the body is of a whitish color. There are five species, distinguished by the number of rays in the back fin. The mullet is justly ranked by Aristotle among the pisces littorales, or those that prefer the shores to the full sea; it is found in great plenty on several of the sandy coasts of our island, and haunts small bays that have influxes of fresh water. They come in great shoals, and keep rooting in the sand or mud, leaving their traces in form of large round holes. They are very cunning; and, when surrounded with a net, often escape by leaping over it; and, if one does so, the others are sure to follow. This was observed by Oppian; who adds, that if they fail to get over at the first leap, they never attempt a second, but lie without motion as if resigned to their fate. They sometimes swarm on the coasts of the Mediterranean. Near Martigues, in France, great numbers of mullets are taken in weirs made of reeds placed in the shallows. Of the milts of the males, which are there called alletants, and of the roes of females, called botar, is made botargo. The materials are taken out entire, covered with salt for four or five hours, then pressed between two boards or stones, washed, and at last dried in the sun for thirteen or fourteen days. This fish was sometimes made the instrument of a horrible punishment for adulterers. It was used both at Athens and Rome; but it is doubtful whether it was a legal punishment or not.

MUG'WORT, *n. s.* Sax. muꝷþýrt. The ARTEMISIA, which see.

The flowers and fruit of the *mugwort* are very like those of the wormwood, but grow erect upon the branches. *Miller.*

Some of the most common simples with us in England are comfry, bugle, Paul's-betony, and *mugwort.* *Wiseman.*

MUGWORT, in botany. See ARTEMISIA. An infusion of this plant in white wine, or a bath made of it, has always been esteemed an emmenagogue, and useful in difficult parturition. The leaves, when young and tender, are used by the Highlanders as a pot herb. The country people in Sweden drink a decoction of them for the ague.

MUHL, KREIS or VIERTEL, i. e. the circle or quarter of the Muhl, one of the four divisions of Upper Austria, comprising all that country which lies between the Danube and Bohemia, and taking its name from the two rivers Upper and Lower Muhl. It contains 1670 square miles, and 160,000 inhabitants. In the south and east it is productive in corn; but in the north, which is mountainous, the common occupation is the culture and manufacture of flax and hemp. Fruit is abundant in all parts.

MUHL, a river of Austria which, rising on the confines of Bohemia, flows southward, and falls into the Danube. It consists of two streams, the Upper and Lower Muhl, which unite near Haslach.

MUHLENBACH, or Szasz Sebes, a town and district of Transylvania, on the Muhlbach. The chief employment here is brewing for the adjacent country. Inhabitants of the town 4000. Twelve miles south of Alba Julia, and forty-eight west of Hermannstadt. The area of the districts, which grows both corn and wine, is 115 square miles, and contains 15,000 inhabitants.

MUHLHAUSEN, a large old town of Saxony, now belonging to Prussia, but long a free town of the empire, is surrounded by high walls, flanked with a tower, and has four churches, four hospitals, breweries, distilleries, and linen and woollen manufactures of considerable extent. Here are also several dye-works, fulling-mills; leather, starch, and oil, are also made here; and in the environs are copper and iron mines. This was one of the oldest free towns of Germany, and retained its democratic institutions till 1802, when the town and territory were ceded to Prussia, and in 1814 definitively confirmed to that power. Inhabitants 9500. It stands at the confluence of the Unstrutt and Schwemotte. Twenty-nine miles north-west of Erfurt, and forty-three E. S. E. of Cassel.

MULAT'TO, *n. s.* Span. *mulatto;* Fr. *mulat,* from Lat. *mulus.* One whose parents are a white and a black.

Mulatto is a name given in the Indies to those who are begotten by a Negro man on an Indian woman; or an Indian man on a Negro woman. The word is originally Spanish, mulata, formed of mula, a mule, as being begotten of two different species. *Dr. A. Rees.*

MUL'BERRY, *n. s.* } Sax. moꝑbeꝓꝷ; Lat.
MUL'BERRY-TREE. } *morus.* A well known fruit tree. See MORUS.

Morton, archbishop of Canterbury, was content to use mor upon a tun; and sometimes a *mulberry tree,* called morus in Latin, out of a tun. *Camden.*

The ripest *mulberry.*
That will not hold the handling.
Shakspeare. Coriolanus.

In the very silk-worm I have observed, that the small and scarce sensible seed, which it casts, comes not to life and disclosure, until the *mulberry,* which is the slowest of all trees, yields her leaf for its necessary preservation. *Bp. Hall.*

A body black, round, with small grain like tubercles on the surface; not very unlike a *mulberry.*
Woodward's Fossils.

The same prolific season gives
The sustenance by which he lives,
The *mulberry* leaf, a simple store,
That serves him—till he needs no more!
Cowper.

MULBERRY, in botany. See MORUS. From the nourishment which this tree affords to the silk-worm, that valuable insect to which we are indebted for the materials of our finest stuffs, the method of cultivating the mulberry tree must be peculiarly interesting wherever its culture can be undertaken with success. In the south of France, and in Italy, vast plantations of these trees are made solely for their leaves to feed these little animals, which amply reward the possessors with the supply of silk which they spin from their bowels. Plantations of mulberry trees have, at different times, been recommended in this country for the same purpose; though nothing has yet been done in that way to any extent, and even the expediency of such an attempt has been doubted by others, upon the ground of its interfering with other branches of rural economics more productive and more congenial to our climate. In the European silk countries, many varieties of mulberry trees are distinguished, arising from difference of climate, soil, method of culture, and other accidental causes. Among the wild mulberries, we meet with some whose leaves are roundish, and resembling those of a rose: hence they have been called the rose-leaved mulberries. Mulberry trees were first cultivated in France, in the reign of Charles IX. It has been found by experience that these trees are not so peculiar to warm countries, but that they may also thrive very well in other countries, and even in Germany, where they afford good nourishment for silk-worms. They grow in all kinds of soil, but thrive best in strong and wet lands; but it is alleged that their leaves then constitute too coarse food, prejudicial to the worms, and unfavorable to the quality of the silk. A good light land is the best soil for raising them. White mulberry trees grow in sandy soils where heath would scarcely vegetate; but their leaves are too dry, and afford not sufficient nourishment for the silk-worms. Mulberry trees may be propagated either from shoots which have taken root, or by seed, layers, and slips. The best seed is commonly procured from Piedmont, Languedoc, &c. M. Duhamel says, that seed should be preferred which is gathered in countries where the cold is sometimes pretty severe; because, in that case, the trees are better able to resist the attacks of the frost. In severe winters, M. Bourgeois observes, the stalks of the young mulberry trees, especially during the first winter, are often destroyed by the frost; but, when they are cut close to the earth, they send forth as beautiful and vigorous stalks as the former. Good seed is large, heavy, and light colored, and produces a great deal of oil when it is pressed, and crackles when thrown on a red hot shovel. In the autumn of the second year, all those trees must be pulled up which have small leaves of a very deep green, rough, and deeply indented, for they would produce no leaves proper for the silk worms. In the third year, when the mulberry tree is about the thickness of the finger, it must be taken up and put in the nursery. According to Bourgeois mulberries ought to be transplanted in the spring of the second year, which makes them thrive better, and sooner attain their growth. Without this transplantation they would put forth only one root like a pivot, and most of them would be in danger of perishing when taken up to be put where they are intended to remain. Some cultivators say, that all the young trees, whether large or small, straight or crooked, ought to be cut close to the ground in the third year, that they may put forth a greater number of roots. Others never employ this method but with regard to those which are crooked, or in a languishing state. White mulberries may be raised for the food of silk-worms, either in the form of a copse, or planted in a regular order, by letting them grow to their natural size. Ingrafting is one of the surest methods of procuring fine leaves from mulberries. Mulberries ingrafted on wild stocks chosen from a good kind, such as those which are produced from the seed of the Italian mulberry, commonly called the rose mulberry, or of the Spanish mulberry, produce much more beautiful leaves, and of a much better quality for silk-worms, than those which are ingrafted on the common or prickly small-leaved wild stock. Ingrafted mulberries produce a greater number of leaves, and more nourishing for silk-worms than wild mulberries. The latter, however, may exist for two centuries; whereas the extension of leaves produced by ingrafting occasions a premature dissipation of the sap of the tree, and thereby accelerates its decay. In a memoir inserted in a treatise on the culture of white mulberries by M. Pomier, it is recommended to ingraft white mulberries upon black ones; and there is reason to think that by following this plan the trees would exist much longer; for the white mulberry commonly decays first in the root, whereas the black mulberry is not subject to any malady. It is very prejudicial to young mulberry trees to strip them of their leaves, because these are the organs of perspiration, and contribute to nutrition by absorbing the moisture of the atmosphere. Mulberry trees are so plentifully stored with sap, that they renew their leaves sometimes twice or thrice. When the winter is mild, they put forth their leaves very early; but it is always dangerous to accelerate the hatching of the worms in expectation of this; for no leaves can be depended upon till the beginning of May, those produced prior to this period being in danger of being destroyed by the frosts. In Tuscany, especially near Florence, M. Nollet tells us, that though the inhabitants do not cultivate half so many mulberries as the Piedmontese, they rear and feed double the quantity of silk-worms. For this purpose they hatch the worms only at two different seasons. The first worms which are hatched are fed on the first produce of the mulberry trees; and, when these have produced their silk, other worms are hatched, which are nourished on the second crop of the same trees. Mr. Bourgeois says, that several kinds of white mulberries are now cultivated near Bienne in Switzerland, and that the prickly mulberry is the least esteemed of all the white wild mulberries. Its branches are rough with

prickles; its leaves are of a small size and few in number; and the reaping of them is difficult and expensive. The common wild mulberry produces indented leaves, oblong, and very slender; but it thrives very well when planted in a hedge, and in a favorable exposure. It is also earlier in the spring than the other species. The wild mulberry, which is produced from the rose or Italian ingrafted mulberry, bears a great number of leaves, of a roundish shape and middling size, inclining to a light yellow, and of an excellent quality. Of the white ingrafted mulberry trees, the rose, or Italian ingrafted, which is now the species most cultivated in France, Italy, and Piedmont, produces great abundance of large thick and smooth leaves. The mulberry called Roman leaf is distinguished from every other species by its very large leaves, some of which are often found equal in size to those of a gourd. The Spanish mulberry greatly resembles the wild rose mulberry, except that its leaves are larger and more pointed. It can resist the strongest frosts and the severest winters in cold climates. The leaves of the mulberry, called the small queen, are oblong, moderately large, and exceedingly smooth: this species is of an excellent quality, and much esteemed.

Mulberry Cyder, a name given by the people of Devonshire, and some other parts of England, to a sort of cyder rendered very palatable by an admixture of mulberry juice in the making; they choose for this purpose the ripest and blackest mulberries, and pressing out their juice, and mixing it with a full-bodied cyder at the time of the grinding and pressing, give just so much of it as adds a perceptible flavor. The color of this liquor resembles that of the brightest red wine, and the flavor of the mulberry never goes off.

MULCT, *n.s.* & *v.a.* Lat. *mulcta*. A fine; penalty: commonly used of a pecuniary penalty: to fine.

Because this is a great part, and Eusebius hath said nothing, we will, by way of *mulct* or pain, lay it upon him. *Bacon.*

Marriage, without consent of parents, they do not make void, but they *mulct* it in the inheritors; for the children of such marriages are not admitted to inherit above a third part of their parents' inheritance. *Bacon's New Atlantis.*

Doe you then Argive Hellena, with all her treasure here,
Restore to us, and pay the *mulct*, that by your vows is due. *Chapman.*

We men, that so fear the breach of human laws, for some small *mulcts* of forfeiture; how should we fear thee, O Lord, that can cast body and soul into hell. *Bp. Hall.*

Look humble upward, see his will disclose
The forfeit first, and then the fine impose;
A *mulct* thy poverty could never pay,
Had not eternal wisdom found the way. *Dryden.*

MULDA, two rivers in the interior of Saxony: the Freyberg Mulda rises near Neustadt, among the Sudetic Mountains, and passes through part of the circle of the Erzgebirge, joining the Schneeberg Mulda near Colditz. The Schneeberg Mulda rises also in the Sudetic chain, to the south of the former, and runs through part of the Vogtland, the circle of Leipsic, and the government of Merseburg, joining the Elbe between Dessau and Zerbst.

MULE, *n.s.* / Muleteer', / Mu'lish, *adj.* } Fr. *mule, mulet*; Lat. and Span. *mula*. An animal generated between an ass and a mare: a driver of mules: mulish is obstinate; perverse; of the supposed temper of mules

Five hundred asses yearly took the horse,
Producing *mules* of greater speed and force. *Sandys.*

Base *muleteers*,
Like peasant foot-boys, do they keep the walls,
And dare not take up arms like gentlemen. *Shakspeare.*

Those effluvia in the male seed have the greatest stroke in generation, as is demonstrable in a *mule*, which doth more resemble the parent, that is, the ass, than the female. *Ray.*

Twelve young *mules*, a strong laborious race. *Pope.*

The *mulish* folly, not to be reclaimed
By softer methods, must be made ashamed. *Cowper.*

Mule, in zoology, is a term applied to every kind of animal produced by a mixture of two different species, but more particularly with regard to the horse and ass. There are two kinds of mules; one from the he-ass and mare, the other from the horse and the she-ass. We call them indifferently mules, but the Romans distinguished them by proper appellations. The first kind are the best and most esteemed; as being larger, stronger, and having least of the ass in their disposition. The largest and stoutest asses, and the fairest and finest mares, are chosen in those countries where these creatures are most used; as in Spain, Italy, and Flanders. But fewer mules are now bred in the Low Countries than formerly. These creatures are stronger, surer footed, go easier, are more cheaply maintained, and last longer than horses. They are commonly of a black, or black brown, with a shining list along the back and across the shoulders, which distinguishes asses. They were formerly much more common in this country than at present; being often brought over in the days of Popery by the Italian prelates. They continued longest in the service of millers; and are yet in use among them in some places, on account of the great loads they are able to carry. As they are capable of being trained for riding, bearing burdens, and for draught, there is no doubt that they might be usefully employed in many different services. It has been asserted, that animals produced by the mixture of two heterogeneous species are incapable of generating, and thus perpetuating the monstrous breed; but this, says count Buffon, is a mistake. Aristotle, says he, tells us, that the mule engenders with the mare, and that the junction produces an animal which the Greeks call hinnus, or ginnus. He likewise remarks, that the she-mule easily conceives, but seldom brings the fœtus to perfection. But the most remarkable and well attested instance of this fact is mentioned in a letter read by M. d'Alembert before the Academy of Sciences, which informed them that a she-mule in the island of St. Domingo had brought forth a foal. The fact was attested by persons of the most unquestionable veracity; and other

instances, though not so well authenticated, are adduced by our author. We may, therefore, continues M. Buffon, consider it as an established fact, that the he-mule can generate and the she-mule produce. Like other animals they have a seminal liquor, and all the organs necessary to generation. But mongrel animals are always less fertile, and more tardy than those of a pure species. Besides, mules have never produced in cold climates, seldom in warm regions, and still more seldom in temperate countries. Hence their barrenness, without being absolute, may be regarded as positive; since their productions are so rare, that only a few examples can be collected. The translator of Buffon's works, in a note on the passage above quoted, has given a remarkable and well authenticated instance of the prolific powers of a she-mule in the north of Scotland, belonging to Mr. David Tullo, farmer in Auchtertyre, in the parish of Newtyle, Forfarshire.

MULES, or hybrid plants, among gardeners, are a sort of vegetable monsters, produced by putting the farina fœcundans of one species of plant into the pistil or utricle of another. See BOTANY. The carnation and sweet-william being somewhat alike in their parts, particularly their flowers, the farina of the one will impregnate the other, and the seed so enlivened will produce a plant differing from both. This furnishes a hint for altering the properties and taste of any fruit, by impregnating one tree with the farina of another of the same class; e. g. a codlin with a pear-main, which will occasion the codlin so impregnated to last a longer time than usual, and to be of a sharper taste. If the winter fruits be fecundated with the dust of the summer kinds, they will ripen before their usual time. From this accidental coupling of the farina of one with another, it arises that in an orchard where there is variety of apples, even the fruits gathered from the same tree differ in their flavor, and in the season of maturity. It is also from the same accidental coupling that the numberless varieties of fruits and flowers raised every day from seed proceed.

MULHAUSEN, a pretty post town of the department of the Upper Rhine, France, and the chief place of the canton of Altkirch, having a board of trade and manufactures, and 9000 inhabitants. It is agreeably situated in a fertile country, in the midst of an island formed by the river Ill, and the canal that connects the Rhone and the Rhine. It is well built, and embellished with fine edifices, among which may be particularly noticed the town-hall and the reformed church. Before the revolution, Mulhausen was the capital of a little republic in alliance with the Swiss, which consisted of this town and the communes of Ilzac and Modenheim. It was united to France on the 2nd of March, 1798, and is now the principal town of the department for its commerce and manufactures. The manufactures consist of printed silks and linens, which are celebrated for the fastness and brilliancy of their colors, and the beauty of their patterns, surpassing those of India and of England; cloth, hats, gold and silver lace, straw hats, &c. There are also woollen and cotton spinning factories, dye-houses, brass-foundries, and manufactories of morocco leather. The inhabitants carry on a trade in corn, wine, brandy, grocery, woollen cloth, iron and ironmongery goods. It is twelve miles N. N. E. of Altkirch, and thirty north-west of Bâle.

MULHEIM, a town of the Prussian province of Cleves and Berg, and government of Cleves, on the Ruhr or Roer, which here becomes navigable. It contains 3100 inhabitants, and manufactures of cotton and paper. In the neighbourhood is a coal mine. Fifteen miles N. N. E. of Dusseldorf.

MULHEIM, another town of the Prussian states, in the duchy of Berg, at the influx of the Stronderbach into the Rhine, across which there is a flying bridge here. The place is indebted for its chief prosperity to the Protestants who were driven from Cologne on account of their religion, and until lately the Protestants of Cologne were accustomed to come here for divine service. The manufactures are woollen stuffs, velvet, silk, leather, soap, and tobacco, and carry on an active inland trade. Here likewise are made excellent earthen ovens. Three miles north of Cologne. Inhabitants 3200.

MULIER, in English law, signifies the lawful issue born in wedlock, though begotten before. Some derive the word from the Latin melior, or French meilleur, better; in regard the condition of a son born thus is better than that of an elder brother born before wedlock. Though, according to Glanvil, the lawful issue is rather called mulier than melior, because begotten on mulieres and not on concubinæ; for he calls such issue filios mulieratos; opposing them to bastards. Briton has frere muliere, i. e. the brother begotten of the wife; in opposition to frere bastard. The mulier is preferred to an elder brother born out of matrimony; for instance, if a man has a son by a woman before marriage, which issue is a bastard, and afterwards marries the mother of the bastard, and they have another son, this second son is mulier and lawful, and shall be heir of the father; but the other can be heir to no person. See BASTARD. By the civil law, where a man has issue by a woman, if after that he marries her, the issue is mulier.

MULL, *v. a.* Lat. *mollio, mollitus.* To soften; dispirit; as wine is when burnt and sweetened.

> Peace is a very apoplexy, lethargy
> *Mulled*, deaf, sleepy, insensible. *Shakspeare.*
> Drink new cyder *mulled*, with ginger warm.
> *Gay.*

MULL, anciently called Dreolin, a large island of the Hebrides, included within the county of Argyle, from the main land of which it is separated by a narrow channel, called the Sound of Mull. On the west and south it is washed by numerous bays formed by the Atlantic Ocean, every where interspersed with small islands, of which the celebrated Icolm-kil is the most remarkable. This island measures from east to west, in some places, twenty-five miles, and from north to south about the same, and comprehends three parochial districts; Kilfinichen, Kilninien, and Torosay. Its superficial con-

tents, however, are by no means equal to a square of that magnitude, owing to the many indentations of the sea, particularly on its western side, which however form excellent harbours. In this island agriculture is not carried on to any considerable extent, but some of the mountains form excellent sheep-walks, and to this purpose they are accordingly applied. Most other parts of the island, not covered with wood or swampy morasses, are devoted to the feeding of cattle, chiefly, if not entirely, of the black native species, of which great numbers are annually reared and exported; and the sale of which constitutes the principal mode whereby the tenants procure money for the payment of their rents. The number of black cattle may be about 8000, and the sheep about 18,000. The only kinds of corn sown here are oats and barley; the former affording very indifferent crops, and the latter much more luxuriant ones. The oats are generally ground into meal; but the greatest part of the barley is distilled into whiskey. Sea-ware and shell-sand are much used as manure, and are carried to the fields on the backs of horses in baskets. All the implements of husbandry are extremely rude; for, as there are no regular plough or harrow-makers in the island, each farmer constructs his own, after the manner of his forefathers. It is calculated that about 600 tons of kelp are made yearly in Mull, which are sold for £6000. But the price of this commodity is very uncertain, being dependent on a state of peace or war. There is no other manufacture of consequence for export from the island.

Of the villages in Mull, the only one worthy of notice is Tober-Moray, or Moire, standing close to the shore, near the northern extremity of the Sound. This village was built by the British Society for the Encouragement of the Fisheries, in 1788, and might be improved into one of the chief sea-ports on the western coast of Scotland. At present, however, it does not contain above thirty houses built of stone and lime; and perhaps double that number of thatched huts. The inhabitants principally either hold situations in the post-office or custom-house, or are employed in some capacity connected with the herring fisheries. There are two stated ferries across the Sound of Mull, one from Aros to Morven, and the other from Auchnacraig to the island of Kerrera, thence to Oban. Upon a bold headland, projecting into the sea, is situate the old castle Duart, or Dowart, formerly the seat of the M'Leans, now in ruins. The climate is humid; a great quantity of rain falls here; and on the whole the island is considered the most boisterous of the Hebrides. Winter is proportionally milder than on the neighbouring mainland; frost is of short continuance, and the whole surface is seldom covered with snow. Several lakes are contained in this island, from which brooks everywhere intersecting it descend. The island is for the most part rugged and mountainous; and Benmore, the highest mountain, is supposed to be elevated 3000 feet above the level of the sea.

The mineralogy of this island is in many respects worthy of attention: a great part of it lies on a mass of whin-stone; in many places the rocks are basaltic, and often assume a regular columnar form. Near Aros there are some rocks of white lava, a rare mineral. Lime-stone abounds, and some seams of coal have been found in different parts. In one place there is a stratum of coal under basaltes, and in another basaltes incumbent on that mineral. At Balphetrish is the famous ringing-stone; it is of a dull gray color, spotted with stars of black mica, and is so hard that it is impossible, with a common hammer, to break off the smallest bit. When struck with a stone or hammer, it yields a sound like brass or cast-iron. Caverns of stupendous dimensions abound in various parts of the island.

Mull has in ancient times been the scene of some severe conflicts, but, for the most part, of too little general importance to find a place in the page of English or Scottish history. Bloody-bay, according to tradition, is so called from a sea-fight between a M'Donald of the isles, and his son. The father was supported in this contest by the brave Hector Obhar M'Lean, who afterwards died in the field of Flodden, covering his monarch, James IV., from the arrows of the English archers. In 1588, the Florida, one of Philip's invincible Armada, was blown up by the desperate resolution of a Scotchman, as some assert, in Tober-Moire bay, after the dispersion of the fleet; and in the same bay did the unfortunate earl of Argyle effect his first landing, attended only by a few friends, when he invaded Scotland, with the view of supporting the cause of the duke of Monmouth.

MUL'LER, *n. s.* Fr. *mouleur*; Teut. *muhler*. A stone held in the hand, with which any powder is ground. It is often improperly called mullet.

The best grinder is the porphyry, white or green marble, with a *muller* or upper stone of the same, cut very even without flaws or holes; you may make a *muller* also of a flat pebble, by grinding it smooth at a grind-stone. *Peacham.*

MULLER is also an instrument used by glass-grinders; being a piece of wood, to one end of which is cemented the glass to be ground, whether convex in a basin, or concave in a sphere or bowl. It is ordinarily about six inches long, turned round; the cement they use is composed of ashes and pitch. See GLASS-MAKING.

MULLER, or REGIOMONTANUS (John), a celebrated astronomer of the fifteenth century, born at Koningshoven, in Franconia, in 1436. He acquired great reputation by publishing an abridgment of Ptolemy's Almagest, which had been begun by Purback. He went to Rome to perfect himself in the Greek language, and to see cardinal Bassarion; but, finding some fault with the Latin Translations of George de Trebizond, that translator's son assassinated him, in a second journey he made to Rome in 1476, where Pope Sixtus IV. had provided for him the archbishopric of Ratisbon, and had sent for him to reform the calendar. Others say that he died of the plague.

MULLER (John), a celebrated engraver, who flourished about 1600, and had been bred under

Henry Goltzius, whose style he closely imitated. His engravings are excellent and very scarce.

MUL'LET, *n. s.* Fr. *mulet;* Lat. *mullus.* Gr. μυλλυς. A sea fish.

Of carps and *mullets* why prefer the great,
Yet for small turbots such esteem profess? *Pope.*

MULLET, in ichthyology. See MUGIL.

MULLET, in heraldry (in French moulette), the rowel of a spur, consisting of five points only, by which it is distinguished from a star, as in the annexed figure. 'He beareth argent, on a bend cottised, sable, three mullets of the first, Andrews, of Harsfield, in Gloucestershire.'

MULLINGAR, a post town, borough, and manor of Ireland, in West Meath; and the county town. It has a barrack for two troops of horse. A few miles from it are the ruins of a church, and a castle. It is situated on the Feyle. It holds a great wool fair, and is a place of good trade. In 1227 the priory of St. Mary, formerly known by the name of The House of God of Mullingar, was founded here by Ralph de Petyt, bishop of Meath, for regular canons of St. Augustin's order. A Dominican friary was also founded here in 1237 by the family of Nugent; some ruins of which still remain. It has fairs on the 6th of April, 4th and 5th of July, the 29th of August, and 11th of November; and lies thirty-eight miles from Dublin.

MUL'LOCK, *n. s.* Teut. *mulk.* Rubbish.—*Ainsworth.*

The *mullock* on an hepe ysweped was,
And on the fiore ycast a canevas,
And all this *mullock* in a sieve ythrowe,
And sifted, and ypicked many a throwe.
Chaucer. Cant. Tales.

MULLROSE, CANAL OF, or Frederick William's Graben, a fine canal of Prussia, in the province of Brandenburg. It commences at Newbruck, on the Spree, and terminates at the lake of Brieson on the Oder. It is about fourteen miles long, has ten sluices, and forms part of the chain of inland communication which extends from Warsaw to Hamburgh. It is consequently of great importance to the trade of Germany.

MULLUS, the surmullet, in ichthyology, a genus of fishes belonging to the order of thoracici. This fish was highly esteemed by the Romans, and bore an exceedingly high price. The capricious epicures of Rome in Horace's days valued it in proportion to its size; not that the larger were more delicious, but that they were more difficult to be obtained. The price given for one in the time of Juvenal and Pliny is a striking evidence of the luxury and extravagance of the age:—

The lavish slave
Six thousand pieces for a mullet gave,
A sesterce for each pound; *Dryden.*

or £48 8*s.* 9*d.* But Asinius Celer, a man of consular dignity, gave 8000 nummi, or £64 11*s.* 8*d.* for a large mullet; though, according to Horace, a mullus trilibris, or one weighing three pounds, was a great rarity. But Seneca says, that it was not worth a farthing except it died in the very hand of the guest; that such was the luxury of the times, that there were stews even in the eating-rooms, so that the fish could at once be brought from under the table, and placed on it; and that they put the mullets in transparent vases, that they might be entertained with the various changes of its rich colors while it lay expiring. Apicius first hit upon the method of suffocating them in an exquisite Carthaginian pickle, and afterwards procured a rich sauce from their livers.—This is the man whom Pliny styles Nepotum omnium altissimus gurges. The body of this fish is very thick, and covered with large scales; beneath them the color is a most beautiful rosy red, the changes of which under the thin scales gave that entertainment to the Roman epicures above mentioned. The scales on the back and sides are of a dirty orange; those on the nose a bright yellow; the tail a reddish yellow.

MULLUVIA, a river of Africa, in the Atlas, forming the boundary between Algiers and Morocco. Its course from south to north is about 200 miles; but it is only navigable for small vessels. It falls into the Mediterranean. Long. 2° 6′ W., lat. 34° 55′ N.

MULTAN'GULAR, *adj.* } Lat. *multus* and
MULTAN'GULARLY, *adv.* } *angulus.* Polygonal; polygonally; with many corners.

Granates are *multangularly* round.
Grew's Cosmologia.

MULTIFA'RIOUS, *adj.* }
MULTIFA'RIOUSLY, *adv.* } Lat. *multifarius.* Having diversity of
MULTIFA'RIOUSNESS, *n. s.* } relations; having different respects; or great diversity in any way.

His science is not moved by the gusts of fancy and humour which blow up and down the *multifarious* opinionists. *Glanville to Albius.*

There is a *multifarious* artifice in the structure of the meanest animal. *More's Divine Dialogues.*

We could not think of a more comprehensive expedient, whereby to assist the frail and torpent memory through so *multifarious* and numerous an employment. *Evelyn's Kalendar.*

According to the *multifariousness* of this imitability, so are the possibilities of being. *Norris.*

If only twenty-four parts may be so *multifariously* placed, as to make many millions of millions of different rows: in the supposition of a thousand parts, how immense must that capacity of variation be!
Bentley's Sermons.

Hair, wax, rouge, honey, teeth, you buy,
A *multifarious* store!
A mask at once would all supply,
Nor would it cost you more. *Cowper.*

MULTIF'IDOUS, *adj.* Lat. *multifidus.* Having many partitions; variously cleft.

These animals are only excluded without sight which are multiparous and *multifidous,* which have many at a litter, and have feet divided into many portions. *Browne.*

MUL'TIFORM, *adj.* Lat. *multiformis.* Having various shapes or forms.

Ye that in quaternion run
Perpetual circle, *multiform.* *Milton.*

The best way to convince is proving, by ocular demonstration, the *multiform* and amazing operations of the air-pump and the loadstone. *Watts.*

Father of all that is or shall arise!
Father of this immeasurable mass

Of matter *multiform*, or dense or rare,
Opaque or lurid, rapid or at rest,
Minute, or passing bound! in each extreme
Of like amaze and mystery to man. *Young.*

MULTIP'AROUS, *adj.* Latin *multiparus.* Bringing many at a birth.

Double formations do often happen to *multiparous* generations, more especially that of serpents, whose conceptions being numerous, and their eggs in chains, they may unite into various shapes, and come out in mixed formations. *Browne.*

Animals feeble and timorous are generally *multiparous:* or if they bring forth but few at once, as pigeons, they compensate that by their often breeding. *Ray on the Creation.*

MULTIPLE, *adj.*
MULTIPLI'ABLE,
MULTIPLI'ABLENESS, *n. s.*
MUL'TIPLICABLE, *adj.*
MULTIPLICAND', *n. s.*
MULTIPLI'CATE, *adj.*
MULTIPLICA'TION, *n. s.*
MULTIPLICA'TOR,
MULTIPLIC'ITY, *n. s.*
MULTIPLIC'IOUS, *adj.*
MULTIPLI'ER, *n. s.*
MUL'TIPLY, *v. a.* & *v. n.*
} Lat. *multiplex, multiplico, multiplicandus, multiplicatio;* French *multiplicable, multiplication, multipliciteur, multiplicité, multiplier.* Manifold; quality of containing another number reduplicated: multipliable is capable of being multiplied: multiplicand, the number multiplied: multiplication, that by which it is multiplied: multiplicate is, consisting of more than one; manifold: multiplication, the art or rule of multiplying or increasing by addition or further production; a rule of arithmetic; multiplicity, numerousness, state of being many: multiplicious, an unnecessary synonyme of multiple and multiplicate: multiplier, the person or number by which any thing is multiplied: to multiply is to increase numerically whether by addition, accumulation, or production of more of the same kind; to perform the arithmetical rule of multiplication; to grow in number; increase.

He shall not *multiply* horses. *Deut.* xvii. 16.

He clappeth his hands amongst us, and *multiplieth* his words against God. *Job.* xxxiv. 37.

The *multiplying* brood of the ungodly shall not thrive. *Wisd.* iv. 3.

The *multiplying* villanies of nature
Do swarm upon him. *Shakspeare. Macbeth.*

Broils and quarrels are alone the great accumulators and *multipliers* of injuries. *Decay of Piety.*

His birth to our just fear gave no small cause;
But his growth now to youth's full flower displaying
All virtue, grace, and wisdom, to atchieve
Things highest, greatest, *multiplies* my fears.
Milton.

Multiplication hath the *multiplicand*, or number to be *multiplied;* the *multiplier*, or number given, by which the *multiplicand* is to be *multiplied*, and the product, or number produced by the other two. *Cocker's Arithmetic.*

From one stock of seven hundred years, *multiplying* still by twenty, we shall find the product to be one thousand three hundred forty seven millions three hundred sixty-eight thousand four hundred and twenty. *Browne's Vulgar Errours.*

Although they had divers stiles for God, yet under many appellations they acknowledged one divinity; rather conceiving thereby the evidence or acts of his power in several ways than a *multiplication* of essence, or real distinctions of unity in any one. *Browne.*

Amphisbæna is not an animal of one denomination; for that animal is not one, but *multiplicious*, or many, which hath a duplicity or germination of principal parts. *Id.*

You equal Donne in the variety, *multiplicity*, and choice of thoughts. *Dryden's Dedication to Juvenal.*

We see the infinitely fruitful and productive power of this way of sinning; how it can increase and *multiply* beyond all bounds and measures of actual commission. *South's Sermons.*

Company, he thinks, lessens the shame of vice, by sharing it; and abates the torrent of a common odium, by driving it into many channels; and therefore if he cannot wholly avoid the eye of the observer, he hopes to distract it at least by a *multiplicity* of the object. *Id.*

A man had need be a good arithmetician to understand this author's works: his description runs on like a *multiplication* table. *Addison on Medals.*

In this *multiplicate* number of the eye, the object seen is not *multiplied*, and appears but one, though seen with two or more eyes. *Derham's Physico-Theology.*

That all who are happy are equally happy is not true. A peasant and a philosopher may be equally satisfied, but not equally happy. Happiness consists in the *multiplicity* of agreeable consciousness. A peasant has not capacity for having equal happiness with a philosopher. This question was very happily illustrated by the Rev. Mr. Robert Browne, at Utrecht: 'A small drinking glass and a large one,' said he, 'may be equally full, but a large one holds more than the small.' *Johnson.*

And ere long,
When man was *multiplied* and spread abroad
In tribes and clans, and had begun to call
These meadows, and that range of hills his own,
The tasted sweets of property begat
Desire of more. *Cowper.*

MULTIPLICATION, in algebra. See ALGEBRA.

MULTIPLICATION. See ARITHMETIC.

MULTIP'OTENT, *adj.* Lat. *multus* and *potens.* Having manifold power; having power to do many things.

By Jove *multipotent*,
Thou should'st not bear from me a Greekish member.
Shakspeare. Troilus and Cressida.

MULTIPRES'ENCE, *n. s.* Lat. *multus* and *præsentia.* The power or act of being present at one time in more places than one.

This sleeveless tale of transubstantiation was surely brought into the world, and upon the stage, by that other fable of the *multipresence* of Christ's body. *Hall.*

MULTITUDE, *n. s.*
MULTITU'DINOUS, *adj.*
} Fr. *multitude;* Lat. *multitudo.* A collective number; a great number; a crowd; throng; the vulgar: multitudinous, manifold; having the effects or appearance of a multitude.

And a gret *multitude* suede him, for thei sighen the tookenes that he dide on them that weren syke. *Wiclif. Jon.* vi.

Will all great Neptune's ocean wash this blood
Clean from my hand? No, this my hand will rather
The *multitudinous* sea incarnardine,
Making the green one red. *Shakspeare. Macbeth.*

He turned water into good wine; he unconceivably so improved a few loaves and little fishes as to feed and satisfy *multitudes*, leaving more than there were at first. *Barrow.*

It is impossible that any *multitude* can be actually infinite, or so great that there cannot be a greater. *Hale.*

He the vast hissing *multitude* admires, *Addison.*

It is a fault in a *multitude* of preachers, that they utterly neglect method in their harangues. *Watts.*

It is equally impossible that what is delivered to a *multitude* of hearers should alike suit all their tastes, as that a single dish, though prepared with ever so much art and exactness, should equally please a great variety of appetites. *Mason.*

Thus is a *multitude*, though large,
Supported at a trivial charge;
A single doit would overpay
The' expenditure of every day,
And who can grudge so small a grace
To suppliants, natives of the place? *Cowper.*

MULTNOMAH RIVER, a considerable river of North America, which falls into the Columbia from the south, about 100 miles from the Pacific Ocean. The Multnomah is 500 yards wide near its mouth. Captain Clarke, who surveyed it, could not find the bottom with a five fathom cord. Its regular current, the depth, and uniformity with which it rolls, prove that its supplies are regular and constant; its course, however, is but imperfectly known. It appears to be the same which the party sent by captain Vancouver under lieutenant Broughton, to explore the shores of the Columbia, call Baning's River; and the stream being divided by an island into two channels, before its junction with the Columbia, Broughton places the western point of junction in long. 237° 41′ E., lat. 45° 28′ N.

MULTOC'ULAR, *adj.* Lat. *multus* and *oculus*. Having more eyes than two.

Flies are *multocular*, having as many eyes as there are perforations in their corneæ. *Derham.*

MULTURE, in Scots law, a certain stipulated quantity of meal given as payment to the proprietor or tacksman of a mill for grinding the corn; and all corn ground on farms thirled to the mill is obliged to pay multure, whether the corn be ground at that mill or elsewhere. Multures, thirlages, and services, are relics of ancient barbarism universally complained of, as great bars to improvement, but as yet have been only partially abolished or commuted.

MUM, *interj* / MUMM, *v. a.* / MUM'MER, *n. s.* / MUM'MERY. } Belg. *mom, mumme*; Dan. *mumme*; Fr. *momerie*. Hush! silence! To mumm is to mask; to frolic disguised: a mummer, a masker: mummery, frolic in masks; romping; foolery; mockery.

But to his speech he aunswered nowhit,
But stood still mute, as if he had beene dum,
Ne signe of sence did shew, ne common wit,
As one with griefe and anguishe ove-cum,
And unto every thing did aunswere *mum*. *Spenser.*

The thriftless games
With *mumming* and with masking all around. *Hubbard.*

Mum then, and no more proceed. *Shakspeare.*

Well said, master *mum!* and gaze yout fill. *Id.*

The citizens are *mum*, say not a word. *Id.*

If you chance to be pinched with the cholick, you make faces like *mummers*. *Id. Coriolanus.*

This open day-light doth not shew the masques and *mummeries*, and triumphs of the world, half so stately as candle-light. *Bacon's Natural History.*

Here mirth's but *mummery*,
And sorrows only real be. *Wotton.*

Jugglers and dancers, antics, *mummers*. *Milton.*

Intrust it under solemn vows
Of *mum*, and silence, and the rose. *Hudibras.*

I began to smoke that they were a parcel of *mummers*. *Addison.*

Your fathers
Disdained the *mummery* of foreign strollers. *Fenton.*

Peeled, patched, and pyebald, linsey-woolsey brothers;
Grave *mummers!* *Pope's Dunciad.*

I pity them greatly, but I must be *mum*,
For how could we do without sugar and rum?
Especially sugar, so needful we see?
What, give up our desserts, our coffee and tea! *Cowper.*

The temple and its holy rites profaned
By *mummeries*, he that dwelt in it disdained;
Uplifted hands, that at convenient times
Could act extortion and the worst of crimes
Washed with a neatness scrupulously nice,
And free from every taint but that of vice. *Id.*

MUM, *n. s.* Dan. and Teut. *mumme*; Fr. *mum*; Belg. *min*. Wheat ale.

In Shenibank, upon the river Elbe, is a storehouse for the wheat of which *mum* is made at Brunswick. *Mortimer.*

Sedulous and stout
With bowls of fatt'ning *mum*. *Philips.*

The clam'rous crowd is hushed with mugs of *mum*,
Till all tuned equal send a general hum. *Pope.*

MUM is a kind of malt liquor much drunk in Germany, and chiefly brought from Brunswick. The process of brewing mum, as recorded in the town-house of that city, is as follows:—Take sixty-three gallons of water that has been boiled till one third part is consumed, and brew it with seven bushels of wheaten malt, one bushel of oatmeal, and one bushel of ground beans When it is turned, the hogshead must not be filled too full at first; as soon as it begins to work, put into it 3 lbs. of the inner rind of fir, 1 lb. of the tops of fir and beech, three handfuls of carduus benedictus, a handful or two of the flower of rosa solis: add burnet, betony, marjoram, avens, pennyroyal, and wild thyme, of each a handful and a half; of elder flowers, two handfuls or more; seeds of cardamum bruised 30 oz. barberries bruised, 1 oz.; when the liquor has worked a while, put the herbs and seeds into the vessel: and after they are added, let it work over as little as possible; then fill it up; lastly, when it is stopped, put into the hogshead ten new laid eggs unbroken: stop it up close, and use it at two years' end. The English brewers, instead of the inner rind of fir, use cardamum, ginger, and sassafras; and also add elecampane, madder, and red sanders.

MUM'BLE, *v. n.* & *v. a.* / MUM'BLER, *n. s.* / MUM'BLINGLY, *adv.* } Belg. *mompelen*; or from mum. To speak inwardly or indistinctly; mutter; grumble: a mumbler is a grumbler or mutterer; a dissatisfied person

As one then in a dream, whose drier brain
Is tossed with troubled sights, and fancies weake,
He *mumbled* soft, but would not all his silence break. *Spenser*

Some carrytale, some pleaseman, some slight zany,
Some *mumble*-news; told our intents before.
Shakspeare.

Here stood he in the dark,
Mumbling of wicked charms; conjuring the moon
To stand 's auspicious mistress. *Id.*

A wrinkled hag, with age grown double,
Picking dry sticks, and *mumbling* to herself.
Otway.

The man, who laughed but once to see an ass
Mumbling to make the gross-grained thistles pass,
Might laugh again to see a jury chaw
The prickles of unpalatable law. *Dryden.*

He with *mumbled* prayers atones the deity.
Id. Juvenal.

The raising of my rabble is an exploit of consequence; and not to be *mumbled* up in silence for all her pertness. *Dryden.*

'Spaniels civilly delight
In *mumbling* of the game they dare not bite.
Pope.

The clown, the child of nature, without guile,
Blest with an infant's ignorance of all
But his own simple pleasures,
—Is ballotted, and trembles at the news:
Sheepish he doffs his hat, and *mumbling* swears
A bible oath to be whate'er they please,
To do he knows not what. *Cowper.*

MUMMIUS (Lucius), a Roman consul, sent against the Achæans, whom he conquered A.U.C. 147. He destroyed Corinth, Thebes, and Chalcis, by order of the senate, and obtained the surname of Achaicus from his victories. He did not enrich himself with the spoils of the enemy, but returned home without any increase of fortune. He was so ignorant of the value of the paintings and works of the most celebrated artists of Greece, which were found in the plunder of Corinth, that he said to those who conveyed them to Rome, that if they lost them or injured them, they should make others in their stead.

MUM'MY, *n. s.* Fr. *momie;* Lat. *mumia,* derived by Salmasius from *amomum,* by Bochart from the Arabic *momiya.* A dead body preserved by the art of embalming; also a sort of wax used by gardeners.

The silk
Was dyed in *mummy,* which the skilful
Conserved of maidens' hearts.
Shakspeare. Othello.

It is strange how long carcases have continued uncorrupt, as appeareth in the *mummies* of Egypt, having lasted some of them three thousand years.
Bacon's Natural History.

Saved by spice, like *mummies,* many a year,
Old bodies of philosophy appear. *Dunciad.*

We have two substances for medicinal use under the name of *mummy;* one is the dried flesh of human bodies embalmed with myrrh and spice; the other is the liquor running from such *mummies* when newly prepared, or when affected by great heat, or by damps; this is sometimes of a liquid, sometimes of a solid form, as it is preserved in vials, or suffered to dry. *Hill's Materia Medica.*

MUMMY, in antiquity, is a name applied to the ancient embalmed bodies generally, but more particularly to those of ancient Egypt. Nor are human bodies exclusively entitled to this appellation, but it includes also those of the ibis and crocodile, and other of the animals esteemed sacred by the ancient Egyptians. The plain of Saccara or Sakkara, in the environs of the ancient Memphis, is the place whence the greatest quantity of mummies have been taken, but very few have been brought away unbroken or entire; the cause of this is the avarice of the Turks and Arabians, who will scarcely ever deliver them to travellers before they have broken them open, to see for jewels or other valuables they suspect may be enclosed therein. The outer case of the mummy is generally of some common wood, sometimes of oriental cypress or sometimes of sycamore. At the upper part is generally a mask drawn on the face, and sometimes under the chin is a lock of hair in the form of a bunch. Authors are not decided as to the meaning of this bunch, some taking it for a beard, and others for the leaf of the plant persea, which is consecrated to Isis. In the female mummies, and in general in the female figures of Egyptian workmanship, this mark is not to be found, which gives some weight to the opinion of those who take it for a beard. On the coverings of their coffins are also found the representation of a face, from which some have supposed them to be portraits of the deceased; but they have in general such a perfect resemblance one to the other that they cannot long be conceived to be any thing else than ornamental. Some have conjectured, and with much appearance of truth, that the figure of Osiris was represented on the mummies of men, and Isis on those of females. On the examination of a mummy that was in the possession of the university of Gottingen it was remarked that a face was painted on the bands that enveloped the body, and it had under the soles of its feet several folds of linen. In some mummies the nails of the feet and hands have been found to be yellow. In the interior of many have been found small images, amulets, beads, nilometers, &c., many of which, taken from mummies, are to be seen in the eighth room under the head of Egyptian Antiquities of the British Museum, where are also two of the finest mummies, and in the best state of preservation now in Europe; one of which was with its coffin sent to England by Edward Wortley Montague, and presented to the Museum by his present Majesty; and the other, which was found in one of the catacombs, at the before-mentioned Sakkara, about four leagues from Cairo, was sent to England by colonel William Lethieullier, who, on his death, bequeathed it to the Museum.

A mummy that was opened by M. Blumenbach, had artificial eyes made of cotton cloth prepared with resin. The Imperial Library at Paris has a mummy which was formerly in the church of St. Geneviève, but which is much broken and otherwise damaged, and the coffin of one extremely well preserved. It is ornamented like the others with hieroglyphic paintings, which are also sometimes found delineated on the bands of cloth with which the body is enveloped. They have also a heap of linen, which they conjecture to have been taken from a mummy, on which is represented the ceremony of embalming. In the same plain of Sakkara before-mentioned, and in the same catacombs where the human mummies are found, are also

a great number of the mummies of sacred animals. M. Denon, in his voyage into Upper and Lower Egypt, visited these sepulchres, in one of which he found more than 500 mummies of the Ibis. The pots and vases which contained them, and served for sarcophagi, were made of common red earth, from fourteen to eighteen inches in height: one would almost be inclined to doubt their antiquity, so well are they preserved. In the ninety-ninth plate of the quarto French edition of Denon's Travels are engraved several representations of these mummies. The British Museum has, in the same room with their valuable mummies, many of these vases, the lids of which are severally adorned with a head of Isis, a hawk, a wolf, or a baboon, several fragments of statues; of sistrums, amulets, and a great variety of other monuments of art, which serve to illustrate the religious worship of the ancient Egyptians. The same traveller (Denon) has also published a very curious account (page 281 of the quarto Paris edition of his Travels) of the opening and developing of one or two of these mummies that were given him; to which work we refer for more detailed particulars.

In general these mummies of the Ibis are enveloped with bands of cloth, wrapped and interlaced with much care. The head and feet are hidden under the wings, and the whole compressed into a conical form. All of them are not enclosed in vases or urns; some have been found that are swathed with much care, excepting the head and beak, which are left uncovered; these are but few, and their arrangement is the same as the human mummies, and are placed standing upright.—Chrét-Aug. Langguth has published an engraving of one, that accompanies his dissertation entitled De Mumiis Avium in Labyrintho apud Saccarum repertis, &c. Vilebergæ, 1803, 4to. This description tallies exactly with the mummy of an ibis they have at present in the Imperial Library at Paris. This bird, which was much adored and revered in ancient Egypt, is the same which still inhabits those countries. This is ably demonstrated by a French naturalist, in the dissection and anatomy of the mummy of an ancient ibis, and that of a modern one, compared together; both the skeletons are kept in the Museum of Natural History at Paris for the gratification of the curious. The following description is given by M. Belzoni of some mummy pits which he visited in the neighbourhood of Thebes:—'The passage where the bodies are is roughly cut in the rocks, and the falling of the sand from the ceiling of the passage causes it to be nearly filled up. In some places there is not more than a foot left, which you must pass through, creeping like a snail on pointed stones that cut like glass. After getting through these passages, some of them 200 or 300 yards long, you generally find a more commodious place, perhaps high enough to sit. But what a place of rest! surrounded by bodies, by heaps of mummies in all directions, which impressed me with horror. The blackness of the wall, the faint light given by the candles and torches for want of air, the different objects that surrounded me seeming to converse with each other, and the Arabs with the candles or torches in their hands, naked, and covered with dust, themselves resembling living mummies, formed a scene that cannot be described. After the exertion of entering into such a place, through a passage of 80, 100, 300, or perhaps 600 yards, nearly overcome, I sought a resting-place, I found one, and contrived to sit; but, when my weight bore on the body of an Egyptian, it crushed it like a bandbox. I instantly had recourse to my hands to sustain my weight, but they found no better support, so that I sunk altogether among the broken mummies with a crash of bones, rags, and wooden cases, which raised such a dust as kept me motionless for a quarter of an hour waiting till it subsided again. I could not remove from the place, however, without increasing it, and every step I took I crushed a mummy in some part or other. Once I was conducted through a passage no wider than that of the body, and choked with mummies, and I could not pass without putting my face in contact with some decaying Egyptian; but, as the passage inclined downwards, my own weight helped me on; however, I could not avoid being covered with bones, legs, arms, and heads falling from above. Thus I proceeded from one cave to another, all full of mummies, piled up in various ways, some standing, some lying, and some on their heads.' There are found in Poland a kind of natural mummies, or human bodies preserved without art. These lie in considerable number in some of the vast caverns in that country. They are dried with the flesh and skin shrunk up almost close to the bones, and are of a blackish color. In the wars which several years ago laid waste that country, it was common for parties of the weaker side to retire into these caves, where their enemies, if they found them out, suffocated them by burning straw, &c., at the mouth of the cavern, and then left the bodies; which, being out of the way of injuries from common accidents, have lain there ever since. Carcases dried by the heat of the sun, and thus preserved from putrefaction, are often found in the sands of Libya. Some imagine that these are the bodies of deceased people buried there on purpose to keep them entire without embalming; others think they are the carcases of travellers who have been overwhelmed by the clouds of sand raised by the hurricanes frequent in those deserts.

MUMP, *v. a.* Belg. *mompelen.* To nibble; bite quick.

> Let him not pry nor listen,
> Nor frisk about the house
> Like a tame *mumping* squirrel with a bell on.
>
> *Otway.*

MUNCH, *v. a.* Fr. *manger*, from Lat. *mando.* See MOUNCH. To chew by great mouthfuls.

> Say, sweet love, what thou desirest to eat?
> —Truly, a peck of provender; I could *munch* your good dry oats.
>
> *Shakspeare. Midsummer Night's Dream.*

> It is the son of a mare that's broken loose, and *munching* upon the melons.
>
> *Dryden's Don Sebastian.*

MUND, *n. s.* Sax. mund, mundian, to defend. Peace; protection; safety.

Mund is peace, from which our lawyers call a breach of the peace, *mundbrech*: so Edmund is

happy peace; Æthelmund, noble peace; Ælmund, all peace; with which these are much of the same import: Irenæus, Hesychius, Lenis, Pacatus, Sedatus, Tranquillus, &c. *Gibson's Camden.*

MUNDA, an ancient city of Hispania Bœtica, in Granada, on the declivity of a hill, at the bottom of which runs a river. This city was famous for a victory gained by Cæsar over the sons of Pompey, who had collected an army in Spain, after the defeat of their father at Pharsalia. See ROME. The Pompeys posted their army advantageously on a rising ground, whereof one side was defended by Munda, and the other by a small river and a marsh. Cæsar also drew up his troops with great art, and made as if he intended to fortify himself in that post: which induced young Pompey to advance into the plain, and attack the enemy before they could secure themselves with any works. Pompey's army was most numerous; for it consisted of thirteen legions, 6000 horse, and an incredible number of auxiliaries, among whom were all the forces of Bocchus king of Mauritania, commanded by his two sons, youths of great valor. Cæsar had eighty cohorts, three legions, and a body of 8000 horse. As the enemy drew near, Cæsar seemed very anxious, knowing he was to engage men equal in valor and experience with himself, and commanded by officers who had given many proofs of their bravery. Cneius Pompeius was an able commander; and Labienus, who had revolted, esteemed scarcely inferior. Cæsar, however, desirous to put an end to the civil war, either by his own death or that of his rivals, gave the signal for the battle, and fell upon the enemy with his usual vigor and resolution. At the first onset, which was dreadful, the auxiliaries on both sides fled. Then the legionaries engaged with a fury hardly to be expressed; Cæsar's men being encouraged by the hopes of putting an end to all their labors by this battle, and those of the Pompeys exerting themselves out of despair, expecting no quarter, most of them having been formerly pardoned. Never was victory more obstinately disputed. Cæsar's men, who had been always used to conquer, found themselves so vigorously charged by the enemy's legionaries, that they began to give ground; and, though they did not turn their backs, yet it was plain that shame alone kept them in their posts. All authors agree that Cæsar had never been in so great danger; and he himself, when he came back to his camp, told his friends, that he had often fought for victory, but this was the first time he had ever fought for life. The battle had lasted from the rising to the setting of the sun, with alternate temporary success on each side, but without any considerable advantage on either; when at last a mere accident decided the dispute in favor of the dictator. Bogud, a petty king of Mauritania, had joined Cæsar soon after his arrival in Spain, with some squadrons of Numidian horse; but, in the very beginning of the battle, he had abandoned his post, and retired with his troops to a rising ground near the enemy's camp, where he continued the whole day an idle spectator of the battle in the plain. But in the evening he made an attack upon Pompey's camp with all his forces. Labienus hastened after him to defend the camp; which Cæsar observing, cried out, Courage, fellow soldiers! the victory at length is ours; Labienus flies! Cæsar's men, believing that Labienus had really fled, charged the wing he commanded so briskly, that, after a most obstinate dispute, they put them to flight. Though the left wing was thus defeated, the right wing, under the elder Pompey, still kept their ground. Pompey, dismounting from his horse, fought on foot, till, most of his legionaries being killed, he was forced to save himself by flight. Part of his troops fled back to their camp, and part took shelter in Munda. The camp was immediately attacked and taken; and Cæsar, without loss of time, drew a line of circumvallation round the city. This victory was gained on the 16th of the kalends of April (our 17th of March), when the liberalia were celebrated at Rome; the very day, Plutarch observes, in which Pompey the Great, four years before, had set out for the war. In this action the Pompeys lost 30,000 men; among whom were Labienus, Attius, Varus, and 3000 Roman knights: seventeen officers were taken, and all the enemy's eagles and ensigns, with Pompey's fasces. On Cæsar's side only 1000 men were killed, and 500 wounded.

MUN'DANE, *adj.* Lat. *mundanus.* Belonging to the world.

The platonical hypothesis of a *mundane* soul will relieve us. *Glanville's Scepsis.*

The atoms which now constitute heaven and earth, being once separate in the *mundane* space, could never without God, by their mechanical affections, have convened into this present frame of things. *Bentley's Sermons.*

MUNDESSOR, a large district of Hindostan, in Mulwah, situated principally between 24° and 25° lat. N., and intersected by the Chumbul. It is possessed by several chiefs, tributary to the Mahrattas. The principal towns are Soonel, Bampoor, and Parkundy.

MUNDEN, a town of Hanover, at the confluence of the Werra and the Fulda, whose united streams take here the name of the Weser. It has a Calvinist and two Lutheran churches, an hospital, a school, and a brisk carrying trade, particularly by water. The annual number of barges or lighters arriving by the Weser is about 300; by the Werra and Fulda above 100 each. The value of the linen annually sold is computed at £100,000. This town sends to Bremen corn, dye-stuffs, stone-ware, millstones, potash, timber, &c.; receiving in return colonial produce, and French wines. The manufactures are tobacco, soap, leather, and stone-ware. This place was plundered by count Tilly in 1626, and occupied by the French in the war of 1756, and again in 1805. It is nine miles north-east of Cassel, and fifteen W. S. W. of Gottingen.

MUN'DICK, *n. s.* Welsh *mwndig* (*mwn*, a mine). A kind of marcasite or semimetal abounding in tin mines.

When any metals are in considerable quantity, these bodies lose the name of marcasites, and are called ores: in Cornwall and the West they call them *mundick.* *Woodward.*

Besides stones, all the sorts of *mundick* are naturally figured. *Grew's Cosmologia.*

MUNDIFICATION, *n. s.* } Lat. *mundus*, and *facio*, to make clean. The act
MUNDIF'ICATIVE, *adj.* }
MUN'DIFY, *v. a.* }
or art of cleansing, as from dross or accretions: to mundify is, to clean; make clean.

Gall is very *mundificative*, and was a proper medicine to clear the eyes of Tobit. *Browne.*

Simple wounds, such as are *mundified* and kept clean, do not need any other hand but that of nature. *Id.*

The ingredients actuate the spirits, absorb the intestinal superfluities, and *mundify* the blood. *Harvey.*

We incarned with an addition to the fore-mentioned *mundificative*. *Wiseman's Surgery.*

MUNDINUS, a celebrated anatomist of the fourteenth century, born in Florence. He was the first modern anatomist who restored the art, and introduced dissection of human bodies. He wrote a Treatise on Anatomy, in 1315, which was printed at Paris in 1748.

MUNDUN'GUS, *n. s.* Stinking tobacco. A cant word.

Exhale *mundungus* ill perfuming scent. *Philips.*

MUNDUS PATENS, i. e. the open world, in Roman antiquity, a solemnity performed in a small temple, of a round form like the world, dedicated to Dis and the rest of the infernal gods. This temple was opened thrice a year, viz. on the 24th August, 4th October, and 7th November. During these days the Romans believed hell was open; on these days, therefore, they never offered battle, listed soldiers, put to sea, or married.

MUN'GREL, *n. s.* & *adj.* Also written MONGREL, which see. Any thing of mixed breed: base-born; degenerate.

Mastiff, greyhound, *mungrel* grim,
Hound or spaniel, brache or hym,
Or bob-tail tike, or trundle tail. *Shakspeare.*

Thou art the composition of a knave, beggar, coward, pander, and the son and heir of a *mungrel* bitch. *Id.*

My people are grown half wild, they would not precipitate themselves else into such a mixt *mungrel* war. *Howel.*

A foreign son is sought and a mixed *mungrel* brood. *Dryden.*

Mungrel curs bawl, snarl and snap, where the fox flies before them, and clap their tails between the legs when an adversary makes head against them. *L'Estrange.*

MUNICH, the capital of the kingdom of Bavaria, and now an archiepiscopal see, is situated on the west bank of the Iser, in a plain, and is surrounded by a rampart. At least three-fourths of the buildings are within this circuit; the remainder constitute the suburbs. The streets are in general ill-paved, but broad and straight; the houses high, and of good appearance; and the public edifices are numerous and respectable. It is divided into four quarters, by two streets, which cross in the principal square, which is surrounded by arcades. The royal palace is a large plain edifice, magnificent in its interior. The kaiser-saal, or imperial hall, is one of the first in Germany; the stair-case leading to it is of marble, and reckoned the finest out of Italy. The treasury contains a noble collection of diamonds, rubies, and other precious stones: the royal chapel has also very costly deposits, and the cabinet is remarkable for its beautiful miniatures. The old electoral palace, and the one inhabited by Eugene Beauharnois, son-in-law of the king of Bavaria, are also fine buildings. We may next notice the landhaus or state-house, the council-house, the arsenal, and the new opera. The Notre Dame church contains thirty altars and a monument of the emperor Louis IV.; that of the Theatins was built on the model of the Vatican; the church belonging formerly to the Jesuits; and the churches of the Augustines, the knights of Malta and St. Peter, are also worth remark. The college occupied by the Jesuits before their expulsion was one of their richest establishments in Europe, and its treasury contained a large collection of philosophical instruments. The total number of churches is twenty-two. The other buildings that deserve notice are the Maximilian palace, the barracks, hospital, workhouse, and the new mint.

Although Bavaria in general is an illiterate and backward country, Munich has many scientific and literary establishments. The national library has been enriched of late years by the addition of collections from the monasteries, and contains a very large rather than valuable stock of books. The academy of sciences was erected in 1759, and has an extensive collection of specimens of natural history and models. The history of Bavaria is a great object of its attention. The schools of a higher class are the military academy, lyceum, gymnasium, veterinary and surgical schools, and the seminary for training teachers. Other scientific establishments are the antiquarian observatory, cabinet of medals, picture gallery (which occupies seven rooms), the collection of prints, and the botanical garden. The court theatre is in the palace; and is a miniature of the Odeon at Paris.

On the 1st January 1790 count Rumford procured the arrest of all the beggars in this capital. His establishment for preparing and distributing soup still remains; together with four orphan-houses, and two pawn banks. There are also two hospitals for the sick, Magdalen hospital, house of correction, and lying-in hospital.

The environs of Munich are adorned with gardens, plantations, and a variety of public places. The court garden is behind the palace, and is called, we understand, the English garden. The Iser flows through it, and has here a neat bridge which leads to the extensive shrubbery. A mile from hence is a distinct royal seat, with another display of fine gardens. The roads from Munich to Paesing, and the garden at Osterwalde, are extremely pleasant.

The general beverage here is malt liquor. The population does not exceed 50,000, of whom nearly 11,000 live in the suburbs. The trade of Munich is very limited: it is to the court and national establishments, and to the residence of a number of landed proprietors, that the inhabitants chiefly owe their support. The Iser is not navigable, and the roads east and west are but indifferent. The manufactures of Munich, though diversified, are of small extent; they comprise furniture, tapestry, gold, wine, piano-fortes, mathematical and surgical instruments, cards,

pencils, snuff, &c., almost all for consumption. The art of lithography is said to have owed its origin to Munich.

In 1632 this city surrendered to the Swedes under Gustavus Adolphus; in 1704 it fell into the hands of the Austrians after the battle of Blenheim, and shared the vicissitudes of the war of 1741, when the elector laid a claim to the imperial crown. After this period it was unmolested until, in 1796, the French army under Moreau obliged the elector to make a treaty with the republic. In 1800 Moreau again occupied Bavaria, and from that time to 1813 the elector remained in alliance with France. See BAVARIA. 220 miles west of Vienna, and 116 E. S. E. of Stutgard. Long. 11° 35′ 15″ E., lat. 48° 8′ 19″ N.

MUNICH (Burchard Christopher), count, a celebrated field-marshal in the Russian service, born at Oldenburg in 1685. He was the favorite of the empress Ann, and was concerned in all the events of her reign. Being appointed general of her armies, he gained great advantages over the Crim Tartars, overcame the Turks, A. D. 1739, in an engagement near Choczim, and took that city with Jassy the capital of Moldavia. He was afterwards prime minister to Ivan VI., but was soon after accused of employing his power to gratify his own ambition and resentment. The empress Elizabeth brought him to trial, and he was condemned to lose his life, A. D. 1742. This sentence was mitigated to banishment into Siberia, whither many of the victims of his power had been exiled. He was recalled by Peter III. A. D. 1762, and declared field-marshal. Upon the death of this prince Catharine II. appointed him director-general of the ports of the Baltic. He died on the 8th October, 1767, aged eighty-four.

MUNIC'IPAL, *adj.* Fr *municipal;* Lat. *municipalis, municipium.* Belonging to a corporation.

A counsellor, bred up in the knowledge of the *municipal* and statute laws, may honestly inform a just prince how far his prerogative extends. *Dryden.*

MUNICIPIUM, in Roman antiquity, a corporation, borough, or enfranchised city or town, where the inhabitants enjoyed their own laws and customs, and at the same time were honored with the privileges of Roman citizens; but then this privilege reached no farther than the bare title. Some indeed, by particular merit, obtained the liberty of votes, which occasioned that distinction of municipium sine suffragio, and municipium cum suffragio. The inhabitants of the municipium sine suffragio were called barely Romani; but those of the municipium cum suffragio were called cives Romani. The proper citizens of Rome were, 1. Registered in the census; 2. Had the right of suffrage and of bearing honors; 3. Were assessed in the poll-tax; 4. Served in the legions; 5. Used the Roman laws and religion; 6. Were Quirites and populus Romanus; whereas the municipes enjoyed the first three of these privileges, but were denied the last three.

MUNIF'ICENCE, *n. s.* MUNIF'ICENT, *adj.* MUNIF'ICENTLY, *adv.* } Fr. *munificence;* Lat. *munificentia, munificus.* Bounty; liberality; generosity, the adjective and adverb follow these senses.

Who can recount the number, or set out the value of those instances, wherein God's goodness is expressed towards such as loved him?—of his kind acceptance, and *munificent* recompensing their endeavours to please him? *Barrow.*

A state of poverty obscures all the virtues of liberality and *munificence.* *Addison's Spectator.*

Is he not our most *munificent* benefactor, our wisest counsellor, and most potent protector? *Atterbury.*

'Twere wild profusion all, and bootless waste,
Power misemployed, *munificence* misplaced,
Had not its author dignified the plan,
And crowned it with the majesty of man. *Cowper.*

MUNIFICENCE, *n. s.* Lat. *munitiones* and *facere.* Fortification; strength. We find no other writer who uses the word in this sense.

Their importune sway,
This land invaded with like violence,
Until that Locrine for his realms defence,
Did head against them make, and strong *munificence.* *Spenser.*

MU'NIMENT, *n. s.* MUNITE', *v. a.* MUNIT'ION, *n. s.* } Lat. *munimentum, munio, munitio.* Fortification; strong-hold; also support, defence: to munite is an obsolete word for, to fortify or strengthen: munition is synonymous with muniment, and is used also by our older writers for ammunition.

It is a city, strong and well stored with *munition.* *Sandys.*

The arm our soldier,
Our steed the leg, the tongue our trumpeter;
With other *muniments* and petty helps
In this our fabrick. *Shakspeare. Coriolanus.*

What penny hath Rome borne,
What men provided, what *munition* sent,
To underprop this action? *Id. King John.*

Heat doth attenuate, and the more gross and tangible parts contract, both to avoid vacuum, and to *munite* themselves against the force of the fire. *Bacon's Natural History.*

Men, in the procuring or *muniting* of religious unity, must not dissolve the laws of charity and human society. *Bacon.*

The king of Tripolie in every hold
Shut up his men, *munition,* and his treasure. *Fairfax.*

It was his treasure and *munition* wherein he prides himself to these men of Babylon; the men of Babylon shall carry away his treasure and *munition.* *Bp. Taylor.*

Victors under-pin their acquests jure belli, that they might not be lost by the continuation of external forces of standing armies, castles, garrisons, *munitions.* *Hale.*

MUNITION SHIPS are those that have stores on board to supply a fleet of men of war at sea. In an engagement all the munition ships and victuallers attending the fleet take their station in the rear of all the rest: they are not to engage in the fight, but to attend to such directions as are sent them by the admiral.

MUNKACS, a town of Hungary, on the Latorcza, the see of a Greek bishop. It contains 5000 inhabitants, of Magyar and Russian descent, and has Catholic, Greek, and Calvinist churches; stocking manufactures, iron works, and one of the largest saltpetre works in the Austrian dominions. On a rock about a mile

from the town are three decayed forts. This was the strong-hold of the celebrated chief of the seventeenth century Tekeli. Sixty-seven miles east by south of Caschau.

MUN'NION, *n. s.* Goth. *mynd*, the face. The facings of a sash.

The upright posts, that divide the several lights in a window frame, are called *munnions*. *Moxon.*

MUNRO (Donald), an eminent writer of the sixteenth century, contemporary with George Buchanan, and a descendant of the family of Coul. He was first archdeacon of the Isles, afterwards superintendant of Ross, and minister of Kiltearn. He wrote a Description of the Isles, which he gave to Buchanan, who acknowledges it in his History of Scotland.

MUNROE, or Southfield, a post-town of Orange county, New York, fifty miles north of New York. Population 2570. Iron ore is found in this town, and iron is extensively manufactured here.

MUNSTER, a government of Westphalia, in the Prussian states, containing the north-west portion of that province. Its area is 2820 square miles; the population 328,000. It is divided into the ten circles or districts of Munster Proper, Tecklenburg, Wahrendorf, Beckum, Ludinghausen, Koesfeld, Recklinghausen, Borken, Ahaus, and Steinfurt. The soil is not rich in corn; but flax and hemp are well cultivated. Linen is the chief manufacture: many of the lower classes emigrate to Holland in summer, and return in winter to their homes, where they engage themselves in weaving. The chief rivers are the Lippe, which forms the greater part of the southern boundary, and the Ems, which flows to the north-east. A canal of considerable length reaches from Munster to the Vechta. This government consists, for the greater part, of the ancient bishopric of the same name, founded in 802 by Charlemagne. The chapter generally chose the archbishop of Cologne: but, after the death of the last primate, they chose a prince of the house of Austria: on the secularisation of church property in 1802 the duke of Oldenburg had 1000 square miles of this territory given to him, with 60,000 inhabitants. Prussia herself had the capital, with 1485 square miles of territory, and the rest was divided among different princes, subject to Prussia in 1815.

MUNSTER, a city of north-west Germany, the capital of a government of the same name, is situated in a plain stretching on both sides of the river Aa, about six miles from the Ems. It had a citadel, and was, until 1765, surrounded with a double mound and moat, but the water was then drained off, and the mounds laid out in public walks. The citadel was also demolished. The houses of the town are well built and lofty, with painted roofs: those in the main streets have small piazzas, or colonnades. There are eleven churches, of which the most remarkable are the cathedral and St. Lambert's. The former has a remarkable chapel, and several curious and ancient monuments. On the tower of the church of St. Lambert are to be seen the three iron baskets in which were suspended the remains of John of Leyden and his two chief companions. The bishop's palace is neat, and the gardens attached are extensive and well laid out. The university at Munster is suppressed, that of Bonn, established in 1818, being the resort of the youth of this neighbourhood. There are here, however, three gymnasia for earlier education, some establishments for weaving coarse linen, and a traffic in linen, woollen, and wine. But neither the trade nor manufactures are considerable. The French, in 1806, stripped the churches of their plate. This city has been rendered famous, 1. By the peace concluded here in 1648, which put an end to a war of thirty years, occasioned by the persecuting spirit of bigotted papists, who chose rather to plunge their country into all the calamities of war, than allow liberty of conscience to the Protestants. By this peace, however, they consented, much against their inclination, to grant them a toleration. 2. By the disorders and disturbances occasioned here in 1553 by a band of enthusiasts, headed by a tailor called John of Leyden from the place of his birth, who turned out the magistrates, and took possession of the city, where they perpetrated the most horrid villanies and cruelties: see our article ANABAPTISTS. It lies sixty miles N. N. E. of Dusseldorf, and ninety-two W. S. W. of Hanover.

MUNSTER, in Latin Monomia, in Irish Mow, the most southerly province of Ireland, bounded on the north by Leinster and Connaught, and on the east, west, and south by the ocean. It contains the counties of Cork, Clare, Kerry, Limerick, Tipperary, and Waterford; 740 parishes, sixty-three baronies, and twenty-six boroughs. It is about 135 miles long, and 120 broad. Its ancient name was Mumhan; and in latter ages it was divided into Desmond, or south Munster; Ormond, or east Munster; and Thomond, or north Munster. It contains some of the finest harbours in the world, and three great towns and sea-ports, Cork (the capital), Limerick, and Waterford. Its rivers are the Lee, the Suir, the Audlyffe, the Banda, the Leane, and the Cashon. Here is one of the finest coal-fields of Ireland, i. e. for non-flaming or stone coal. It is chiefly under the direction of Mr. Leader of Dromagh (see our article Ireland), and employs between 1000 and 1500 hands. Copper mines, and a slate quarry, are also at work in the county of Cork. See CORK. Potteries have been also established in this neighbourhood with considerable success.

MUNSTER (Sebastian), a learned German mathematician and linguist, born at Inglehein in 1489. He became a Cordelier, but having embraced Luther's sentiments he quitted that order in 1529, and retired to Heidelberg, and afterwards to Basil, where he became professor of Hebrew, and taught with reputation. He was a man of great candor, void of ambition, and so well skilled in geography, mathematics, and the Hebrew language, that he was called the Esdras and Strabo of Germany. His Latin translation of the Bible is esteemed. He was the first who wrote a Chaldee grammar and lexicon: he also published a Treatise on Cosmography, and several other works. He died of the plague at Basil in 1552, aged sixty-three.

MUNYCHIA, or MUNYCHIUS PORTUS, is

ancient geography, a village and port of Athens, nearer to the city, and fortified in the same manner with the Piræus, east of which it lay, between it and the promontory Sunium, at the mouth of the Ilissus. Strabo says it was an eminence in form of a peninsula, at the foot of which stood three harbours, anciently encompassed with a wall, taking within its extent the Piræus and other harbours, full of docks, with the temple of Diana Munychia; taking its name from Munychus, the founder of the temple.

MUNYCHIA, an anniversary solemnly observed at Athens in honor of Diana, on the 16th of the month Munychion. Cakes were offered on the occasion called αμφιφωντες.

MUNYCHION, the tenth month of the Athenian year, containing twenty-nine days, and answering to the latter part of our March and beginning of April. It was so called from the festival munychia, which was observed in this month.

MUONIO, a river of Lapland, which, issuing from a lake among the mountains, in lat. 69° N., flows S. S. E. and south, till it joins the Tornea. By the treaty of 1809 it forms the boundary between Russia and Swedish Lapland. It has a number of rapids, but is navigable for boats throughout a great part of its course.

MURÆNA, the eel, in icthyology, a genus of fishes, belonging to the order of apodes. The head is smooth; there are ten rays in the membrane of the gills; the eyes are covered with a common skin; and the body is cylindrical and slimy. There are nine species, distinguished by their fins, tails, &c. The most remarkable are these:—

1. M. anguilla, the common eel, is very frequent in all our fresh waters, ponds, ditches, and rivers; according to Mr. Pennant it is the most universal of fish; yet is scarce ever found in the Danube, though very common in the lakes and rivers of Upper Austria. In some respects it borders on the reptile tribe. It quits its element, and during night wanders along the meadows, not only in order to change its habitation, but also for the sake of prey, feeding on snails as it passes along. In winter it beds itself deep in the mud, and continues in a state like the serpent kind. It is very impatient of cold, and will eagerly take shelter in a wisp of straw flung into a pond in severe weather, which has sometimes been practised as a method of taking them. Albertus affirms, that he has known eels take shelter in a hay-rick, yet perish through excess of cold. In a river of Cambridgeshire called the Nene there is a variety of small eel, with a less head and narrower mouth than the common kind, found in clusters in the bottom of the river, and called the bed-eel; these are sometimes roused up by the violent floods, and are never found at that time with meat in their stomachs. Eels are extremely voracious, and destructive to the fry of others. No fish lives so long out of water as the eel; it is so extremely tenacious of life, that its parts will move a considerable time after they are flayed and cut in pieces. Eels vary much in their colors, from a sooty hue to a light olive green; and those which are called silver eels have their bellies white, and a remarkable clearness throughout. There is a variety in the Thames called grigs, and about Oxford grigs or gluts. These are scarce ever seen about Oxford in the winter, but appear in spring, and bite readily at the hook, which common eels in the neighbourhood will not. They have a larger head, a blunter nose, thicker skin, and are less fat, than the common sort; they are less esteemed, and seldom exceed 3 or 4 lbs. in weight. Common eels grow to a large size, sometimes weighing 15 or 20 lbs., but such are extremely rare. Mr. Dale in the Philosophical Transactions, and some others, bring instances of eels much exceeding that size; but Mr. Pennant suspects them to have been congers, as these enormous fish were all taken at the mouths of the Thames or Medway. The Romans held eels very cheap, but the luxurious Sybarites were so fond of them as to exempt from tribute those who sold them. There is scarce any animal the generation of which has puzzled the learned more than this. Aristotle first broached an opinion that eels were of no sex, nor propagated their species like other animals, but were equivocally gendered of the mud; and, absurd as this hypothesis is, there have not been wanting many who have adopted it. But there is now no room to doubt that all animals are produced by the copulation of parents like themselves; and the finding of eels in new ponds is easily accounted for, from the above mentioned circumstance of their nocturnal migrations. Dr. Plot, and many others, have given accounts of whole droves of them leaving one ditch or pond to go to another. Though naturalists now generally allow that eels are produced like other animals, by parents of their own kind, yet there remain many doubts about the manner in which the generation is performed. Some allow the eels to be, like the generality of other animals, of different sexes in the different individuals; and others affirm that they are all hermaphrodites, each having the parts of both sexes. Rondeletius affirms that they are of both sexes; and Mr. Allan, who has given a very curious paper concerning them in the Philosophical Transactions, is of the same opinion. Both say, that the parts of the sexes may be discovered on a careful inspection; and some are found to be males and others females; but these parts are, in both sexes they say, buried in a large quantity of fat; and hence, they think, proceeded the mistake of Aristotle and his followers, who, not being able to find those parts, concluded that they did not exist. Among those who allow the eel to be produced, like other animals, from parents which have the sexes, some are of opinion that they are viviparous, and others that they are oviparous: but Mr. Chartwynd seems to have determined this controversy, by observing, that if the aperture under the belly of the eel, which looks red in May, be cut open at that time, the young eels will be seen to come forth alive after the operation. Eels have sometimes been met with in recent ponds, made at such a distance from any other water that we cannot reasonably suppose them to have migrated thither over land. But in these cases it is probable that the ponds have

been supplied with them by aquatic fowls of prey, as vegetation is spread by many land birds, either by being dropped as they carry them to feed their young, or by passing quick through their bodies, as is the case with herons.

2. M. conger, the conger eel, grows to a vast size. Dr. Borlase informs us, that they are sometimes taken near Mount's Bay, of 100 lbs. weight; and some have been taken near Scarborough, that were ten feet and a half long, and eighteen inches in circumference in the thickest part. They differ from the common eel in the following particulars:—1. Their color in general is more dark. 2. Their eyes much larger in proportion. 3. The irides of a bright silvery color. 4. The lower jaw is rather shorter than the upper. 5. The inside line is broad, whitish, and marked with a row of small spots. 6. The edges of the dorsal and anal fins are black. 7. They have more bones than the common eel, especially along the back quite to the head. 8. They grow to a much larger size. Congers are extremely voracious, preying on other fish, and on crabs at the time they have lost their shell and are in a soft state. They and eels in general are also fond of carcases of any kind, being frequently found lodged in such as are accidentally taken up. The conger eels probably generate like the fresh-water species. Innumerable quantities of what are supposed to be their fry come up the Severn about April, preceding the shads, which it is conjectured migrate into that river to feed on them; they are called elvers. They swarm during their season, and are taken in a kind of sieve made of hair-cloth fixed to a long pole; the fisherman, standing on the edge of the water during the tide, puts in his net as far as he can reach, and, drawing it out again, takes multitudes at every sweep, and will take as many during one tide as will fill a bushel. They are dressed and reckoned very delicate. They are an article of commerce in Cornwall; numbers taken on that coast are exported to Spain and Portugal, particularly to Barcelona. Some are taken by a single hook and line; but, as that method is tedious, they are chiefly caught by bulters. The fishermen are much afraid of a large conger, lest it should endanger their legs by clinging round them; they therefore kill them quickly by striking them on the vent. They are afterwards cured in this manner:—They are slit and hung on a frame till they dry, having a considerable quantity of fat, which it is necessary should exude before they are fit for use. A conger of 1 cwt. will be reduced by drying to 24 lbs. The smallest are therefore preferred, because they are soonest cured. The Portuguese and Spaniards use those dried congers after they have been ground into a powder, to thicken and give a relish to their soups. They are sold for about 40s. the quintal, which weighs 126 lbs.

MU'RAGE, *n. s.* } Lat. *murus*, a wall.
MU'RAL, *adj.* } Money paid for keeping walls in repair: of or belonging to a wall; mure is used by Shakspeare for a wall. See MURE.

And repaired
Her *mural* breach, returning whence it rowl'd. *Milton*

In the nectarine and the like delicate *mural* fruit, the later your pruning the better.
Evelyn's Kalendar.

A soldier would venture his life for a *mural* crown.
Addison.

MURAKOS, a populous though small district of Hungary, the property of a single noble family; much subdivided, so that it is said no one holds more than four acres of land. The whole is about thirty miles in length by twelve broad, but contains a population of 46,000.

MURAL ARCH, a wall or walled arch, placed exactly in the plane of the meridian, i. e. upon the meridian line, for fixing a large quadrant, sextant, or other instrument, to observe the meridian altitudes, &c., of the heavenly bodies. Tycho Brahe was the first who used a mural quadrant in his observations; after him Hevelius, Mr. Flamstead, De la Hire, &c., used it. See ASTRONOMY.

MURANO, a town of Italy, subject to Austria, and situated on the Isle of Lagunes, east of Venice. Here the celebrated Venetian glasses and mirrors are manufactured. Population 4300.

MURANT (Emanuel), a much admired landscape painter, born at Amsterdam in 1622. He was a disciple of Philip Wouverman, from whom he acquired that warmth and brilliancy of coloring, which rendered him eminent. His subjects were views in Holland, villages, towns, cities, ruins, and decayed castles, sketched after nature, and so exquisitely finished that every minute part of a building was perfectly discernible, and even every particular stone or brick might be counted. But this demanded so much time that it was impossible for him to paint many pictures; on which account they are exceedingly scarce, and sold for enormous prices. He died in 1700.

MURANUM, in ancient geography, a town of Italy, on the confines of Lucania, in Calabria Citra, at the springs of the Sybaris, midway between the Sinus Tarentinus on the east, and the Tuscan Sea on the west; now called Morano. It is supposed to have arisen from the ruins of Sypaæum.

MURAT (Joachim), late king of Naples, was born 25th of March, 1771, at la Bastide, near Cahors, in the department of Lot, France, where his father kept a tavern. Being patronised by an ancient and respectable family of Perigord, he obtained a scholarship in the college of Cahors, and finished his studies for the priesthood at Toulouse. But his adventurous and rather wild disposition induced him to enter the army. Dismissed from his regiment, as insubordinate, he returned home till the formation of the national guard, in which he entered, and was sent to Paris. He afterwards became sub-lieutenant in a regiment of chasseurs; and, displaying his zeal for revolutionary principles, was soon advanced to the rank of lieutenant-colonel, and chief of brigade. In 1796 he accompanied Buonaparte as his aid-de-camp, to Italy. He was employed in negociations by that chief at Turin and Genoa; and in 1798 commanded the army sent to effect the subordination of the Valteline. He followed his patron to Egypt,

and there distinguished himself at the battle of Mount Tabor. On his return he afforded Buonaparte assistance in his progress to the supreme power; was made commander of the consular guard; and soon after married to the sister of the first consul. At the battle of Marengo he commanded the cavalry; and in 1802 governed the Cisalpine republic, with the title of general. In January 1804 he was governor of Paris, with the title of general-in-chief; and, when Buonaparte was proclaimed emperor, directed the whole military force. Soon after he was made a marshal of France, and repeatedly distinguished himself in the campaign of 1806. Being invested with the grand duchy of Berg, he assumed the state of a sovereign prince in two campaigns, particularly at the battle of Jena. At Eylau and at Friedland he commanded the cavalry; and showed himself on every occasion the devoted agent of his imperial relative. In 1808 he was sent into Spain, and effected the temporary submission of that country; but on the 1st of August the same year was proclaimed king of the two Sicilies, and had reigned peaceably and with considerable popularity at Naples four years, when he was called upon to join the Russian expedition of Buonaparte. He commanded the French cavalry; and after the defeat of Smolensko imitated the example of his leader, and fled for Naples. In 1813 he joined the French; but, after the loss of the battle of Leipsic, endeavoured to make terms with their enemies by entering into separate negociations with England and with Austria. His vacillating conduct proved at length his ruin, and by a well constructed conspiracy he was hurled from his throne and obliged to reside some time at Plaisance, near Toulon. After the battle of Waterloo he at first took refuge in Corsica; whence with a few followers he sailed to Italy in the summer of that year, in the hope of recovering his crown; but was made prisoner soon after his landing, and conducted to the castle of Pizzo, where he was shot October 13th 1815.

MURATORI (Lewis Anthony), F. R. S., a celebrated Italian writer, born at Vignoles, in Bologna, in 1672. He early discovered a fondness for the languages and sciences. Having completed his studies, he became an ecclesiastic; but devoted his time to literature, philosophy, theology, civil law, antiquities, &c. In 1694 he was made librarian of the Ambrosian library at Milan; and in 1700 the duke of Modena made him his librarian, keeper of the Archives, and provost of Santa Maria del Pomposa. He acquired the esteem of the learned throughout Europe, and became an associate of the academies of the Arcades of Rome, Della Crusca, and Colomberia, of Florence, of Etrusca at Cortona, of the Imperial Academy of Olmutz, and F. R. S. of London. He died in 1750. He wrote, 1. Anecdota; or A Collection of Pieces from the Ambrosian Library; 2 vols. 4to., with notes. 2. A Treatise on the Italian Poetry, 2 vols. 4to. 3. Anecdota Græca, 3 vols. 4to. 4. A Genealogical History of the House of Modena, 2 vols. folio. 5. A Collection of the writers of Italian History, 27 vols. folio, with learned notes. 6. Antiquitates Italicæ. 7. A Collection of Ancient Inscriptions, entitled Novus Thesaurus, 6 vols. folio. 8. The Annals of Italy, 12 vols. 4to., in Italian, &c. 9. Letters, Dissertations, Italian Poems, &c.

MURCIA, in ancient mythology, the goddess of idleness. The name is taken from murcue or murcidus, an obsolete word, signifying a dull, slothful, or lazy person. The statutes of this goddess were always covered with dust and moss to express her idleness and negligence. She had a temple in Rome, at the foot of the Aventine mount.

Murcia, an important province of Spain, situated between Valencia on the east, Andalusia on the west, and the Mediterranean on the south. It is ninety miles long and above sixty broad; having an area of 8000 square miles, and a population of 384,000. Its aspect is in general mountainous; its climate is very fine, the sky being seldom clouded, and mists wholly unknown: several months often elapse without the falling of a shower.

The mountains in this province are chiefly branches of the great Roman chain Montes Orospedani; the most remarkable are the Sierras de Penas, de Chinchilla, d'Orihuela, d'Almanza, and de Carascoy. The province is watered by the Segura, Guadalentin, Benamor, and Guardavar. The soil is in general fertile, and the climate beautifully clear, mild, and salubrious, particularly in the Huerta, or track watered by the Segura; in the parts called Campos it is of equal fertility, but not so well watered. The products are wheat, barley, vines, olives, mulberries, saffron, hemp, and rice: also in good quantity citrons, pomegranates, and almonds. Several of the mountains have good pasturage; but it is neglected, and the boars are not expelled from the thinly peopled parts of this province. The mineral products are lead, copper, sulphur, nitre, alum, crystal, and marble; but the inhabitants turn them to little account. The only manufactures are a few coarse cloths and silk stuffs, made in the town of Murcia; earthenware, soap, and cutlery. The extent of coast here is considerable, and Murcia contains Carthagena one of the best harbours in the world; but the roads of the interior are wretched, and the commerce comparatively unimportant. The exports are cutlery, hemp, silk, ribands, wine, corn, soda, saffron, and bass-weed, all in small quantities. The inland trade is chiefly promoted by three great fairs held in September, at Murcia in the centre, at Lorca in the south, and Albacete in the north of the province. The chief towns are Carthagena, Murcia, Lorca, Chinchilla, Albacete, Villena, and Almanza. At Carthagena the majority of the inhabitants are of French, English, or Italian descent.

Murcia, a considerable town of Spain, the capital of the foregoing province, stands on the north bank of the Segura, in the midst of a large and beautiful valley. It is surrounded by mulberry trees, but bounded at the distance of nearly four miles to the east by lofty, naked, mountains. The town was formerly walled. It is now divided into the Old and New towns, and a suburb on the south side of the river. It is ill built throughout; and there are but three or four

streets in which two carriages can pass; nor are these lighted during night. The only good square is the one where bull-fights are exhibited; this is spacious, and surrounded by tolerably neat houses. Murcia has eleven churches, ten monasteries, nine convents, a tribunal of the inquisition, three colleges for the secular clergy, and three hospitals. There are also two public libraries, devoted chiefly to old scholastic theology. The bishopric of Carthagena was transferred hither in 1291. The diocese comprehends the greater part of the province, and the bishop's revenue is said to exceed £20,000 sterling a year. The cathedral stands in the same square as the episcopal palace, and is a very large edifice: it is chiefly noted for a large dome, beyond which there are three aisles separated by enormous pillars formed of groups of slender columns clumped together; almost all the ornaments are in a bad taste. The churches of Santa Olalla and San Juan are on the same plan, but in better taste: those of La Caridad and St. Peter, and the Franciscan and Dominican convents, are all richly decorated and endowed.

The population of the town is nearly 35,000; that of its Huerta or dependency about 42,000 more. The working of bassweed employs a number of hands and furnishes a quantity of mats for export: here is also a refinery of saltpetre, and, at the distance of four miles from the town, several powder mills, worked for the government. The establishment for twisting silk is extensive, machinery being now employed for that purpose; still the trade and manufactures of the town are alike inconsiderable.

The public walks in and about Murcia are fine, and comprise the arsenal, a spot of ground gained from the river by an embankment; the botanical garden; the Alameyda, or public walk properly so called; and the Malecon, a large quay thrown up to prevent the encroachments of the Segura. The families of nobility and gentry are numerous, and pretend to be the most illustrious of Spain. The Murcian seldom leaves, it is said, his native city, and is hardly ever to be found either at the court, in the army, or in the professions. He passes his time in eating, drinking, sleeping, smoking his cigar, counting his beads, and dragging his limbs to some place where he may sit down in Asiatic idleness. Though the sky is clear, and rain falls rarely, the number of canals produces a degree of humidity in the air, which, joined to want of exercise, engenders liver diseases here. In summer the heat is excessive, the thermometer being often at or above 100°.

Murcia is first mentioned in history in the year 713, when it was taken by the Moors. In 1236 it became the capital of a separate kingdom. It was taken by Alphonso X. of Castile in 1265, who fortified it and peopled it with Catalans, Arragonese, and emigrants from France. In the beginning of the eighteenth century it declared for the Bourbons; and its bishop, Belluga, armed the citizens and peasantry, cut the canals and reservoirs, and altered the course of the Segura, which produced such an inundation that the troops of the archduke could not advance. Orihuela, and even Carthagena, soon after fell into the hands of this prelate. It is 106 miles S. S. W. of Valencia, and 140 east by north of Jaen.

MUR'DER, *n. s., v. a., & interj.* MUR'DERER, *n. s.* MUR'DERESS, MUR'DERMENT, MUR'DEROUS, *adj.* } Saxon morbor, morbep; Gothic, Swed., and Teut. *mord*, death; *morder*, *mordare*; Belgic, *moorder*; Ital. *mortair*; Fr. *meurtre*; Lat. *mors*; Gr. μορος, death. Malicious or unlawful homicide; to kill a man unlawfully; to destroy: as an interjection it is used for a cry of alarm in mortal danger: a murderer is one who sheds human blood unlawfully, and is used of both sexes who commit the crime: murderess, a woman who commits murder: murderment is an unnecessary and obsolete synonyme of murder: murderous, guilty of, or addicted to murder; bloody; cruel.

Thou dost kill me with thy falsehood, and it grieves me not to die; but it grieves me that thou art the *murderer*. *Sidney.*

Blood hath been shed ere now, i' th' olden time,
Ere human statute purged the general weal;
Ay, and since too, *murders* have been performed
Too terrible for the ear. *Shakspeare. Macbeth.*

Can'st thou quake and change thy color,
Murder thy breath in middle of a word,
And then again begin, and stop again? *Shakspeare.*

Let the mutinous winds
Strike the proud cedars to the fiery sun.
Murdering impossibility, to make
What cannot be, slight work. *Id. Coriolanus.*

Kill men i' the dark! where be these bloody thieves?
Ho, *murder! murder!* *Id. Othello.*

I am his host,
Who shall against his *murderer* shut the door,
Not bear the knife myself. *Id. Macbeth.*

Eyes, that are the frailst and softest things,
Who shut their coward gates on atomies,
Should be called tyrants, butchers, *murderers.* *Shakspeare.*

Oh, *murderous* coxcomb! what should such a fool
Do with so good a wife? *Id. Othello.*

To her came message of the *murderment.* *Fairfax.*

The very horrour of the fact had stupified all curiosity, and so dispersed the multitude, that even the *murderer* himself might have escaped. *Wotton.*

When by thy scorn, O *murderess!* I am dead,
Then shall my ghost come to thy bed,
And thee feigned vestal in worse arms shall see. *Milton.*

Enforced to fly
Thence into Egypt, till the *murderous* king
Were dead, who sought his life; and missing, filled
With infant blood the streets of Bethlehem. *Id.*

Slaughter grows *murder* when it goes too far,
And makes a massacre what was a war. *Dryden.*

Like some rich or mighty *murderer*,
Too great for prison, which he breaks with gold,
Who fresher for new mischiefs does appear,
And dares the world to tax him with the old. *Id.*

Diana's vengeance on the victor shown,
The *murderess* mother, and consuming son. *Id.*

Art thou the *murderess* then of wretched Laius?
Id.

See my royal master *murdered*,
His crown usurped, a distaff in the throne. *Id.*

The killing of their children had, in the account of God, the guilt of *murder*, as the offering them to idols had the guilt of idolatry. *Locke.*

This stranger having had a brother killed by the conspirator, and having sought in vain for an opportunity of revenge, chanced to meet the *murderer* in the temple. *Addison.*

If she has deformed this earthly life
With *murderous* rapine and seditious strife;
In everlasting darkness must she lie. *Prior.*

With equal terrors, not with equal guilt,
The *murderer* dreams of all the blood he spilt.
Swift.

He was inclined to show an usurper and a *murderer* not only odious, but despicable; he therefore added drunkenness to his other qualities, knowing that kings love wine like other men, and that wine exerts its natural power over kings. *Johnson.*

From the earliest dawnings of policy to this day, the invention of men has been sharpening and improving the mystery of *murder*, from the first rude essay of stones, to the present perfection of gunnery, cannoneering, bombarding, mining. *Burke.*

Him, Tubal named, the Vulcan of old times,
The sword and faulchion their inventor claim;
And the first smith was the first *murderer's* son.
Cowper.

MURDER. Under the articles HOMICIDE and MANSLAUGHTER we have stated the law in relation to the instances in which the killing of a human being is held to be either excusable or justifiable; and also where, though not justifiable, it does not amount to the crime of murder. We have now to treat of homicide in its last and most atrocious character.

Of the general nature of the crime.—Murder, according to Sir Edward Coke, is committed when a person of sound memory and discretion unlawfully killeth any reasonable creature, in being, and under the king's peace, with malice aforethought, either express or implied.

It must be committed by a person of sound memory and discretion. Lunatics or infants are incapable of committing any crime, unless they show a consciousness of doing wrong and a discretion or discernment between good and evil. If an infant under twelve years of age acts so that it may be presumed he knows what he does, and he kill another, it may be adjudged felony and murder; though it is not probable that the sentence would be executed. An infant's hiding the body is a circumstance from which to presume a capacity to distinguish right from wrong.

It is essential to a conviction for murder that the killing should be unlawful: that is without warrant or excuse.

And the offence is not complete unless the party die within a year and a day after the injury received or the cause of death administered; in the computation of which the whole day upon which the hurt was done shall be reckoned the first. It is no excuse for the accused that the person hurt might have recovered if he had not neglected to take care of himself. Nor where a man has some disease which possibly would terminate his life in half a year, but whose death is hastened by the wounds he receives. But if the wound or hurt be not mortal, and the party dies owing to ill applications of medicine, and it appear that the medicine, and not the wound, was the cause of death, it seems it is not homicide.

As a general rule all homicide is 'malicious,' and amounts to murder, unless where justified by the command or permission of the law, excused on account of accident or self-preservation, or alleviated into manslaughter by being either the involuntary consequence of some act, not strictly lawful, or (if voluntary) occasioned by some sudden and sufficiently violent provocation. All these circumstances of justification, excuse, or alleviation, it is incumbent upon the prisoner to make out to the satisfaction of the court and jury; the latter of whom are to decide whether the circumstances alleged are proved to have actually existed; the former, how far they extend to take away or mitigate the guilt. For all homicide is presumed to be malicious until the contrary appears upon evidence.

Of the different kinds of murder.—As there are as many ways of killing as there are modes by which one may die, Moriendi mille figuræ, it is laid down in general, that not only he, who, by a wound or blow, or by poisoning, strangling, famishing, or other means, directly causes the death of another; but also, in many cases, he who by wilfully and deliberately doing a thing, which apparently endangers another's life, thereby occasions his death, shall be adjudged to kill him.

Thus if a man does such an act of which the probable consequence may be, and eventually is, death; such killing may be murder, although no blow be struck by himself, and no killing may be primarily intended. Such was the case of the unnatural son, who exposed his sick father to the cold air against his will, by reason whereof he died. So of the woman who laid her child under leaves in an orchard where a kite struck and killed it. And also of the parish officers who shifted a child from parish to parish till it died for want of care and sustenance. So also any one having the care of another and refusing necessary sustenance, or inflicting severities, though not calculated to produce immediate death, yet if death clearly ensue in consequence of the ill-treatment it is murder.

Murder is committed when the death of a prisoner is occasioned by confinement in a noisome place, or in the same room with another prisoner known to be affected with an epidemic distemper, or by loading him with improper fetters. Hence, when any person dies in gaol, the coroner should enquire into the manner of his death. It was also held to be murder not only in the person accusing another who was innocent, and who on his evidence was condemned and executed, but also in compelling any one by duress to do so. But there is no modern instance in which it has been held to be murder or punished as such. The reason of which probably is that if it were so adjudged it would deter witnesses from giving evidence on capital prosecutions, lest their own lives might be endangered. If a person who is infected with the plague goes abroad with the intention of infecting another, and another is thereby infected, and dies; this,

it seems, is murder. So if two or more persons come together to do an unlawful act against the king's peace, of which the probable consequence might be bloodshed; as to beat a man, to commit a riot, or to rob a park, and one of them kills a man, it is murder in them all, because of the unlawful act, or evil intended before hand.

So too, if a man has a beast that is used to do mischief, and he knowing it suffers it to go abroad and it kills a man—this is manslaughter in the owner; but if he had purposely turned it loose, though barely to frighten people and make what is called sport, it is as much murder as if he had incited a bear or dog to worry them.

But if a physician or surgeon gives his patient a potion or plaster to cure him, which, contrary to expectation, kills him, this is neither murder nor manslaughter, but misadventure; and he shall not be punished criminally, however liable he may be to a civil action for neglect or ignorance.

Of the persons murdered.—The person killed must be a reasonable creature in being, at the time of the killing. To kill a child in its mother's womb is now no murder, but a great misprision. However if the child be born alive, and dies by reason of the potion or bruises it received in the womb, it seems, by the better opinion, to be murder in such as administered or gave them.

In the case of the murder of illegitimate children, it is enacted by 21 James I. c. 27, if any woman be delivered of a child, which if born alive should by law be a bastard, and endeavours privately to conceal its death, by burying the child, or the like; the mother so offending shall suffer death as in the case of murder, unless she can prove by one witness at least that the child was actually born dead.

It has, however, for many years been usual, upon trials for this offence, to require some sort of presumptive evidence that the child was born alive, before the other constrained presumption that the child whose death is concealed was therefore killed by its parent is admitted to convict the prisoner.

And according to the 43d Geo. III. c. 58, administering drugs, or using any other contrivance to destroy a living infant unborn, is felony, both in the perpetrators and abettors. If the mother is not quick with child, still an attempt to procure an abortion is punishable with fine, imprisonment, whipping, or transportation, for any period less than fourteen years.

By the same statute, women concealing the birth of an illegitimate child are liable to two years' imprisonment.

As the law was formerly laid down the person killed must be under the king's peace; but the better opinion is that the malicious killing of any person, of whatsoever nation or religion he may be, or of whatsoever crime attainted, is murder. Thus if a man kill an alien enemy within this kingdom, it is felony, unless it be in the heat of war and in the actual exercise thereof. And a person outlawed of felony, or attainted of præmunire is equally protected; for the execution of a sentence must be by a lawful officer, lawfully appointed; and therefore if a person be condemned to be hanged, and the sheriff behead him, it is said this is murder, and the wife is entitled to an appeal.

Of murder, where the malice is prepense.—The killing must be committed with malice aforethought to make it the crime of murder. This is the grand criterion which now distinguishes murder from other killing. And this malice prepense is not so properly spite or malevolence to the deceased in particular, as any evil design in general; the dictate of a wicked, depraved, and malignant heart; and it may be either express or implied in law.

Express malice is when one, with a sedate deliberate mind and formed design, doth kill another. This formed design is evidenced by external circumstances discovering that inward intention; as lying in wait, antecedent menaces, former grudges, and concerted schemes to do him some bodily harm.

Such is the case of deliberate duelling, where both parties meet avowedly with an intent to murder, and therefore the law has justly fixed the crime and punishment of murder on them, and also on their seconds; and the crime is the same although committed under provocation of charges, however grievous, against the character. The mere incitement to fight, though under such provocation, is a high misdemeanor. Even upon a sudden provocation, if one beats another in a cruel and unusual manner, so that he dies, though he did not intend his death, yet he is guilty of murder by express malice—that is by an express evil design. Neither shall he be guilty of a less crime who kills another in consequence of such a wilful act as shows him to be a wilful enemy to all mankind: as going deliberately and with an intent to do mischief upon a horse used to strike, or coolly discharging a gun among a multitude of people. So if a man resolves to kill the next man he meets, and does kill him, it is murder, although he knew him not; for this is universal malice.

A man is esteemed to fight in cool blood, when he meets in the morning on an appointment over night; or in the afternoon on an appointment in the morning; or, as some say, if he fell into other discourse after the quarrel, and talked calmly upon it; or, if he have so much consideration as to observe that it is not proper or safe to fight at present, for such and such reasons, which show him to be master of his temper.

Of murder, where the malice is implied.—In many cases where no malice is expressed, the law will imply it—as where a man wilfully poisons another, in such a deliberate act the law presumes malice, though no particular enmity can be proved.

If a man kills another suddenly, without any, or without a considerable provocation, the law implies malice; for no person, unless of an abandoned heart, would be guilty of such an act upon a slight or no apparent cause. No affront by words or gestures only is a sufficient provocation, so as to excuse or extenuate such acts of violence as manifestly endanger the life of another. But if the person so provoked had unfortunately killed the other, by beating him

in such a manner as showed only an intent to chastise and not to kill him, the law so far considers the provocation of contumelious behaviour, as to adjudge it only manslaughter, and not murder. In like manner, if one kills an officer of justice, either civil or criminal, in the execution of his duty, or any of his assistants endeavouring to conserve the peace, or any private person endeavouring to suppress an affray, or apprehend a felon, knowing his authority, or the intention with which he interposes, the law will imply malice, and the killer shall be guilty of murder. So if a person, intending to commit a felony, undesignedly kills a man, this also is murder. Thus if one shoots at A, and misses him, but kills B, this is murder, because of the previous felonious intent, which the law transferred from one to the other. The same is the case where one lays poison for A; and B (against whom the accused had no malicious intent) takes it, and it kills him, this is likewise murder. So also, if one gives a woman with child a medicine to procure abortion, and it operates so violently as to kill the woman, this is murder in the person who gave it. But sometimes the plain sense and feelings of a jury will revolt at these legal and tortuous rules. As in a case that occurred a few years since, in which a man, meaning to shoot a paramour of his wife's, by accident, on a dark evening, shot his own son. The indictment being laid that, with malice aforethought, &c., he shot his son, the jury, notwithstanding the judge's directions to the contrary, acquitted him.

Of the place where the murder is committed. 1. *Out of the realm.*—It seems that the killing of one who is both wounded and dies out of the realm, or wounded out of the realm and dies here, cannot be determined at common law, because it cannot be tried by a jury of the neighbourhood where the fact was done. But it is agreed that the death of one who is both wounded and dies beyond sea, and it is said by some that the death of him who dies here of a wound given him there, may be heard and determined before the constable and the marshal, according to the civil law, if the king please to appoint a constable. And it seems also to be clear that such a fact, being examined by the privy council, may, by force of 33 Henry VIII. c. 23, be tried before commissioners appointed by the king in any county of England. It has been decided indeed that this act extends to all murders committed out of the realm.

A murder at sea was anciently cognisable only by the civil law; but now by the statutes 27 Henry VIII. c. 4, and 28 Henry VIII. c. 15, it may be tried and determined before the king's commissioners in any county of England, according to the course of the common law. The commissioners to be appointed under these statutes are the admiral or his deputy, and three or four more, among whom two common law judges are constantly appointed, who in effect try the prisoners. This is now the only method of trying marine felonies in the court of admiralty. The judge of the admiralty presiding there, as the lord mayor presides at the sessions in London.

2. *In different counties.*—It has been said that the death of one who died in one county of a wound received in another is not indictable at all at common law, because the offence was not complete in either county. The act called lord Ellenborough's act would of course remove this difficulty; but, independently of this statute, it has been held that if the corpse were carried into the county where the wound was given the whole might be enquired of by a jury of the same county. And it is agreed that an appeal might be brought in either county, and the fact tried by a jury returned jointly from each. It is now however clear that by 2 and 3 Edw. VI. c. 24, the whole is triable by a jury of the county wherein the death shall happen.

3. *In Wales.*—By the statute of Henry VIII. c. 6, a murder in Wales may be enquired of in an adjoining English county.

Of the indictment.—If a person be indicted for one species of killing, as by poisoning, he cannot be convicted by evidence of a totally different species of death, as by shooting with a pistol or starving. But where they only differ in circumstance, as if a wound be alleged to be given with a sword and it proves to have arisen with a staff, an axe, or a hatchet, this difference is immaterial.

Of the punishment.—Murder is punished almost universally throughout the world with death. The general precept, as Blackstone terms it, which was given to Noah (Gen. ix. 6), that 'whoso sheddeth man's blood, by man shall his blood be shed,' has been contended to import rather a prophetic warning of the general fate of a murderer than an express injunction judicially to put him to death. The words of the Mosaical law, however, are very emphatical in prohibiting the pardon of murderers, or the remission of the capital punishment: 'moreover ye shall take no satisfaction for the life of a murderer, who is guilty of death, but he shall surely be put to death; for the land cannot be cleansed of the blood that is shed therein, but by the blood of him that shed it.' Numb. xxxv. 31.

The punishment of murder and that of manslaughter were formerly the same; both having the benefit of clergy. But now, by several statutes, the benefit of clergy is taken away from murderers, through malice prepense, their abettors, procurers, and counsellors. By 25 Geo. II. c. 37 it is enacted that the judge, before whom any person shall be found guilty of wilful murder, shall pronounce sentence immediately after conviction, unless he sees cause to postpone it; and shall, in passing sentence, direct him to be executed on the next day but one (unless the same shall be Sunday, and then on the Monday following), and that his body be delivered to the surgeons to be dissected and anatomised; and that the judge may direct his body to be afterwards hung in chains but in no wise to be buried without dissection. And, during the short but awful interval between sentence and execution, the prisoner shall be kept alone, and sustained with only bread and water. But a power is allowed to the judge, upon good and sufficient cause, to respite the execution, and relax the other restraints of this act.

Of petit treason.—This is an aggravated degree of murder, and may happen (according to the 25 Edw. III. c. 27), in three ways:—1. By a servant killing his master. 2. A wife her husband. 3. An ecclesiastical person, either secular or regular, his superior, to whom he owes faith and obedience.

A servant who kills his master whom he has left, upon a grudge conceived against him during his service, is guilty of petit treason; for the traitorous intention was hatched while the relation subsisted between them, and this is only an execution of that intention.

So if a wife be divorced, a mensâ et thoro, still the vinculum matrimonii subsists, and, if she kill such divorced husband, she is a traitoress.

A clergyman is understood to owe canonical obedience to the bishop who ordained him, to him in whose diocese he is beneficed, and also to the metropolitan of such suffragan or diocesan bishop; and therefore to kill any of these is petit treason. As to the rest, whatever respects wilful murder, is also applicable to the crime of petit treason, which is no other than murder in its most odious degree; except that the trial shall be as in cases of high treason before the improvements therein made by the statutes of William III. But a person indicted of petit treason may be acquitted thereof and found guilty of manslaughter or murder; and in such case it shall seem that two witnesses are not necessary as they are in the case of petit treason.

The punishment of petit treason is to be drawn and hanged. Persons guilty of petit treason were first debarred the benefit of clergy, by stat. 12 Henry VII. c. 7, which has been since extended to their aiders, abettors, and counsellors, by stat. 23 Henry VIII. c. 1, and 4 and 5 Philip and Mary, c. 4.

Of stabbing and cutting.—By 43 Geo. III. c. 58 (usually called lord Ellenborough's Act), persons who stab or cut, with intent to murder, maim, or disfigure another, or to prevent the arrest of culprits, are declared guilty of felony without benefit of clergy. Those who are guilty of malicious shooting at another, in any dwelling house, or other place, are also punishable, under the same statute, in the same degree.

Murderer's Bay, a bay on the west coast of Staten Land, or New Zealand; so named by Tasman from some of his crew being murdered here by the natives, in December 1642. It lies between Cape Farewell and Rocky Point. Lat. 40° 49′ S.

Murderers, or Murdering Pieces, in a ship, are small pieces of ordnance, either of brass or iron, which have chambers put in at their breeches. They are used at the bulk-heads of the fore-castle, half-deck, or steerage, in order to clear the deck, when the ship is boarded by an enemy.

MURE, *n. s.* & *v. a.* Fr. *mur;* Lat. *murus.* A wall. Not in use. As a verb, to shut up, or inclose within walls.

All the gates of the city were *mured* up, except such as were reserved to sally out at. *Knolles.*

The incessant care and labour of his mind
Hath wrought the *mure,* that should confine it in,
So thin, that life looks through and will break out.
Shakspeare.

MURENGERS are two officers of great antiquity in the city of Chester, annually chosen out of the aldermen, to see that the walls are kept in repair, and to receive a certain toll and custom for the maintenance thereof.

MURET, or Muretus (Mark Anthony Francis), was born at Muret, near Limoges, in 1526. He acquired a perfect knowledge of the Greek and Latin tongues, and became one of the most learned men of his time. After having taught some time in Provence, he was made a professor at Paris, along with Turnebus and Buchanan. In 1544 he went into Italy; and in 1563 was professor of law, philosophy, and history, in Rome, where he died in 1585. His principal works are, 1. Notes on Terence, Horace, Catullus, Tacitus, Cicero, Sallust, Aristotle, Xenophon, &c. 2. Orationes. 3. Variæ Lectiones, Poemata, Hymni Sacri. 4. Disputationes in Lib I. Pandectorum de Origine Juris, &c. 5. Epistolæ, Juvenilia Carmina, &c. Most of his works have been printed in the Venice edition of 1737, in 5 vols. 8vo.

MUREX, in zoology, a genus of the order of vermes testacea. This animal is of the snail kind: the shell consists of one spiral valve, rough, with membranaceous furrows, and the aperture terminates in an entire canal, either straight, or somewhat ascending. There are sixty species, particularly distinguished by peculiarities in their shells, &c. From a species of murex was obtained the famous Tyrian dye, so much valued by the ancients. This, however, has long been superseded by the use of the cochineal. One of the shells producing the dye was a kind of buccinum; but the finest, or Tyrian purple, was procured from the murex. These species of shells are found in various parts of the Mediterranean. Immense heaps of them are to be seen about Tarentum, evincing one place where this precious liquor was extracted. They are also found on the coasts of Guayaquil and Guatimala in Peru. The shells adhere to the rocks that are washed by the sea; and are of the size of a large walnut. The liquor may be extracted two ways: some kill the animal after they have drawn it out of the shell; then press it with a knife from head to tail; separate from the body the part where the liquor is collected, and throw away the rest. When this operation, after being repeated on several snails, has afforded a certain quantity of fluid, the thread intended to be dyed is dipped in it, and the process is finished. The color which is at first of the whiteness of milk, becomes afterwards green, and is not purple till the thread is dry. Others draw the fish partly out of the shell, and, squeezing it, make it yield a fluid which serves for dyeing: they repeat this operation four times, at different intervals, but always with less success. If they continue it, the fish dies. No color, at present known, says the abbé Raynal, can be compared to this, either as to lustre, liveliness, or duration. It succeeds better on cotton than wool, linen, or silk.

Murex, a caltrop or iron instrument, with sharp points projecting in every direction, used by the Romans as a defence against the enemy's horse. It was so called, probably, because the

points bore some resemblance to the spines and tubercles with which the shell of the murex is surrounded.

MURFREESBOROUGH, a post town of Rutherford county, Tennessee; thirty-two miles south-east of Nashville, 160 west of Knoxville. Population, in 1818, about 1100. It is the seat of the state government, and is pleasantly situated on an eminence, which descends in every direction, and contains a court-house, jail, market-house, a branch of the Nashville bank, an academy, a printing office from which is issued a weekly newspaper, a meeting-house, &c. The public buildings are handsomely built of brick, and the dwelling houses are mostly brick, or framed, two stories high. An elegant brick Presbyterian church has been lately erected. Murfreesborough was established only about six years ago, and was made the seat of the state government in 1817. It is one of the most considerable and flourishing towns in the state, has a very healthy situation, is watered by excellent springs, and there are within two miles and a half two mineral springs, whose waters are useful in several complaints. In the vicinity of the town, on the branches of Stone's River, there are valuable mills. The district of country, in which this town is situated, is one of the richest in the state, abounding in corn, wheat, cotton, tobacco, timothy, and various other kinds of grass. The land is very fertile, and level; there is no hill of any considerable elevation within ten miles. New Orleans is the market for the merchandise of this place. The road is excellent to Nashville, where commences a steam boat navigation.

MURG, a river in the south-west of Germany, rising near Oppenau, and which after a course of 100 miles to the north-west, falls into the Rhine near Rastadt. It is of much use in floating timber from the Black Forest.

MURG, one of the ten districts of the grand duchy of Baden, lying along the river Murg. It contains 85,000 inhabitants, and is divided into eight bailiwics. Rastadt is the chief town.

MURGHELAN, a large city of Tartary, subject to the khan of Koukan. It stands on a fine river, and the environs are delightful and well supplied with water.

MURIATIC, *adj.* Lat. *muria*, brine. Partaking of the taste or nature of brine.

If the scurvy be entirely *muriatick*, proceeding from a diet of salt flesh or fish, antiscorbutick vegetables may be given with success, but tempered with acids. *Arbuthnot.*

MURIATIC ACID, or hydrochloric acid, in chemistry, is a combination of chlorine with hydrogen which may be procured by various methods. Let six parts of pure and well dried sea salt (muriate of soda) be put into a glass retort over a lamp; to the beak of the retort lute in a horizontal direction a long glass tube artificially refrigerated and containing a quantity of dymuriate of lime. Upon the salt pour at intervals five parts of concentrated sulphuric acid through a syphon funnel fixed air tight in the tubulare of the retort. The free end of the long tube being recurved, so as to dip into the mercury of a pneumatic trough, a gas will issue, which on coming in contact with the air will form a visible cloud, or haze, presenting, when viewed in a vivid light, prismatic colors.

This gas is muriatic acid gas, and when combined with water forms the muriatic acid of commerce.

In the ancient method, common salt was previously decrepitated, then ground with dried clay, and kneaded with water into balls of the size of a pigeon's egg: which, after having been well dried, were put into a retort, so as to fill the vessel two-thirds full; distillation being then proceeded upon, the muriatic acid came over when the heat was raised to ignition. In this process eight or ten parts of clay to one of salt are to be used. The retort must be of stone-ware well coated, and the furnace must be reverberatory.

Sir H. Davy first gave the just explanation of this decomposition. Common salt is a compound of sodium and chlorine. The sodium may be conceived to combine with the oxygen of the water in the earth, and with the earth itself to form a vitreous compound; and the chlorine to unite with the hydrogen of the water, forming muriatic acid gas. 'It is also easy,' adds he, 'according to these new ideas, to explain the decomposition of salt by moistened litharge, the theory of which has so much perplexed the most acute chemists. It may be conceived to be an instance of compound affinity; the chlorine is attracted by the lead, and the sodium combines with the oxygen of the litharge, and with water, to form hydrate of soda, which gradually attracts carbonic acid from the air. When common salt is decomposed by oil of vitriol it was usual to explain the phenomenon by saying, that the acid by its superior affinity, aided by heat, expelled the gas, and united to the soda. But, as neither muriatic acid nor soda exists in common salt, we must now modify the explanation, by saying that the water of the oil of vitriol is first decomposed, its oxygen unites to the sodium to form soda, which is seized on by the sulphuric acid, while the chlorine combines with the hydrogen of the water, and exhales in the form of muriatic acid gas.'

The English manufacturers use iron stills for the distillation of muriatic acid with earthen heads: the philosophical chemist, in making the acid of commerce, will prefer glass. Five parts by weight of strong sulphuric acid are to be added to six of decrepitated sea salt, in a retort, the upper part of which is furnished with a tube or neck, through which the acid is to be poured upon the salt. The aperture of this tube must be closed with a ground stopper immediately after the pouring. The sulphuric acid immediately combines with the alkali, and expels the muriatic acid in the form of a peculiar air, which is rapidly absorbed by water. As this combination and disengagement take place without the application of heat, and the aërial fluid escapes very rapidly, it is necessary to arrange and lute the vessels together before the sulphuric acid is added, and not to make any fire in the furnace until the disengagement begins to slacken; at which time it must be very gradually raised. Before the modern improvements in chemistry were made, a great part of the acid escaped for

want of water to combine with; but, by the use of Woolfe's apparatus, the acid gas is made to pass through water, in which it is nearly condensed, and forms muriatic acid of double the weight of the water, though the bulk of this fluid is increased one-half only. The acid condensed in the first receiver, which contains no water, is of a yellow color, arising from the impurities of the salt.

The marine acid of commerce has a straw color: but this is owing to accidental impurity; for it is not found in the acid produced by the impregnation of water with the aëriform acid.

When this aëriform acid, commonly called muriatic acid gas, is received in glass jars over mercury it is invisible and possesses all the mechanical properties of atmospheric air.

Its odor is pungent and peculiar; its taste acid and corrosive. Its specific gravity, according to Sir Humphry Davy, is such, that 100 cubic inches weigh thirty-nine grains, while by estimation, he says, they ought only to be 38·4. By the latter number the specific gravity, compared to air, becomes 1·2590, by the former number 1·2800. M. Gay Lussac states the specific gravity at 1·2780. Sir H.'s second number makes the prime equivalent of chlorine 4·43, which comes near to Berzelius's latest result; while his first number makes it 4·48. See CHLORINE. As the attraction of muriatic acid gas for hygrometric water is very strong, it is very probable that 38·4 grains may be the more exact weight of 100 cubic inches, regarding the same bulk of air as = 30·5. See the Table of Gases. If an inflamed taper be immersed in it, it is instantly extinguished. It is destructive of animal life; but the irritation produced by it on the epiglottis scarcely permits its descent into the lungs. It is merely changed in bulk by alterations of temperature; it experiences no change of state. When potassium, tin, or zinc, is heated in contact with this gas over mercury, one-half of the volume disappears, and the remainder is pure hydrogen. On examining the solid residue, it is found to be a metallic chloride. By passing muriatic acid gas over litharge, muriate of lead is formed, and a quantity of water produced. The same takes place when oxide of silver is similarly employed, the water being equal to about one-fourth the weight of the gas.

Conceiving, from these facts, that muriatic acid gas was a compound of three-fourths of the real acid with one-fourth of water, the French chemists made some experiments with a view to obtain the acid free from water. For this purpose they applied the vitreous superphosphate of lime, and afterwards the vitreous boracic acid, to the dry muriates; but, although exposed to a high temperature, no muriatic acid could be disengaged. If, however, a few drops of water were added, the muriatic acid instantly separated in the form of gas. Hence they found, that muriatic acid could not be separated from its compounds without the presence of water. Their next object was to attempt to separate the oxygen from the *oxymuriatic* acid, and by that means get the muriatic acid free from water, as they had reason to believe that the former did not contain water. This object, however, they found of no less difficulty than the last. Metallic substances were ineffectual for this purpose, in consequence of their combination with the acid they wished to obtain. When they employed sulphur they obtained a peculiar compound of the acid with the sulphur which had before been discovered by Dr. Thomson, under the name of the sulphureted muriatic acid. Phosphorus also combined with the acid, forming a peculiar substance. Their next experiment was to pass *oxymuriatic acid gas* over red-hot carbon: at first some muriatic acid was formed, but they ultimately found that carbon had no effect upon *oxymuriatic acid* when no moisture was present. They further found that when the *oxymuriatic acid* was brought in contact with sulphurous acid gas, with nitric oxide, or with carbonic oxide, no decomposition took place, except with the presence of water or hydrogen. Hence muriatic acid gas consists of chlorine and hydrogen, united in equal volumes. This view of its nature was originally given by Scheele, though obscured by terms derived from the vague and visionary hypothesis of phlogiston. The Lavoiserian school afterwards introduced the belief that muriatic acid gas was a compound of an unknown radical and water; and that chlorine consisted of this radical and oxygen. Sir H. Davy has the distinguished glory of refuting this hypothesis, and of proving, by decisive experiments, that in the present state of our knowledge chlorine must be regarded as a simple substance; and the muriatic acid gas as a compound of it with hydrogen. This gaseous acid unites rapidly, and in large quantity, with water. At the temperature of 40° Fahrenheit, water absorbs about 480 times its bulk of gas, and forms solution of muriatic acid gas in water, the specific gravity of which is 1·2109. The heat produced in the condensation of the gas is so great, that it melts ice almost as rapidly as the steam of boiling water. Hence also, in passing the gas from the beak of a retort into a Woolfe's apparatus containing water to be impregnated, it is necessary to surround the bottles with cold water or ice, if we wish a considerable condensation to take place.

The following table of the specific gravity and consequent strength of the various combinations of this acid gas with water, to form the acid of commerce, is given by Dr. Ure in his excellent Dictionary of Chemistry.

Acid of 1·20 in 100.	Specific Gravity	Chlorine.	Muriatic Gas.	Acid of 1·20 in 100.	Specific Gravity	Chlorine.	Muriatic Gas.	Acid of 1·20 in 100.	Specific Gravity	Chlorine.	Muriatic Gas.
100	1·2000	39·675	40·777	66	1·1328	26·186	26·913	32	1·0637	12·697	13·049
99	1·1982	39·278	40·369	65	1·1308	25·789	26·505	31	1·0617	12·300	12·641
98	1·1964	38·882	39·961	64	1·1287	25·392	26·098	30	1·0597	11·903	12·233
97	1·1946	38·485	39·554	63	1·1267	24·996	25·690	29	1·0577	11·506	11·825
96	1·1928	38·089	39·146	62	1·1247	24·599	25·282	28	1·0557	11·109	11·418
95	1·1910	37·692	38·738	61	1·1226	24·202	24·874	27	1·0537	10·712	11·010
94	1·1893	37·296	38·330	60	1·1206	23·805	24·466	26	1·0517	10·316	10·602
93	1·1875	36·900	37·923	59	1·1185	23·408	24·058	25	1·0497	9·919	10·194
92	1·1857	36·503	37·516	58	1·1164	23·012	23·650	24	1·0477	9·522	9·786
91	1·1846	36·107	37·108	57	1·1143	22·615	23·242	23	1·0457	9·126	9·379
90	1·1822	35·707	36·700	56	1·1123	22·218	22·834	22	1·0437	8·729	8·971
89	1·1802	35·310	36·292	55	1·1102	21·822	22·426	21	1·0417	8·332	8·563
88	1·1782	34·913	35·884	54	1·1082	21·425	22·019	20	1·0397	7·935	8·155
87	1·1762	34·517	35·476	53	1·1061	21·028	21·611	19	1·0377	7·538	7·747
86	1·1741	34·121	35·068	52	1·1041	20·632	21·203	18	1·0357	7·141	7·340
85	1·1721	33·724	34·660	51	1·1020	20·235	20·796	17	1·0337	6·745	6·932
84	1·1701	33·328	34·252	50	1·1000	19·837	20·388	16	1·0318	6·348	6·524
83	1·1681	32·931	33·845	49	1·0980	19·440	19·980	15	1·0298	5·951	6·116
82	1·1661	32·535	33·437	48	1·0960	19·044	19·572	14	1·0279	5·554	5·709
81	1·1641	32·136	33·029	47	1·0939	18·647	19·165	13	1·0259	5·158	5·301
80	1·1620	31·746	32·621	46	1·0919	18·250	18·757	12	1·0239	4·762	4·893
79	1·1599	31·343	32·213	45	1·0899	17·854	18·349	11	1·0220	4·365	4·486
78	1·1578	30·946	31·805	44	1·0879	17·457	17·941	10	1·0200	3·968	4·078
77	1·1557	30·550	31·398	43	1·0859	17·060	17·534	9	1·0180	3·571	3·670
76	1·1536	30·153	30·990	42	1·0838	16·664	17·126	8	1·0160	3·174	3·262
75	1·1515	29·757	30·582	41	1·0818	16·267	16·718	7	1·0140	2·778	2·854
74	1·1494	29·361	30·174	40	1·0798	15·870	16·310	6	1·0120	2·381	2·447
73	1·1473	28·964	29·767	39	1·0778	15·474	15·902	5	1·0100	1·984	2·039
72	1·1452	28·567	29·359	38	1·0758	15·077	15·494	4	1·0080	1·588	1·631
71	1·1431	28·171	28·951	37	1·0738	14·680	15·087	3	1·0060	1·191	1·224
70	1·1410	27·772	28·544	36	1·0718	14·284	14·679	2	1·0040	0·795	0·816
69	1·1389	27·376	28·136	35	1·0697	13·887	14·271	1	1·0020	0·397	0·408
68	1·1369	26·979	27·728	34	1·0677	13·490	13·863				
67	1·1349	26·583	27·321	33	1·0657	13·094	13·456				

The muriatic acid is one of those longest known, and some of its compounds are among those salts with which we are most familiar. The muriates, when in a state of dryness, are actually chlorides, consisting of chlorine and the metal; yet they may be conveniently treated of under the title muriates.

The *muriate of barytes* crystallises in tables bevelled at the edges, or in octahedral pyramids applied base to base. It is soluble in five parts of water at 60°, in still less at a boiling heat, and also in alcohol. It is not altered by the air, and but partly decomposed by heat. The sulphuric acid separates its base; and the alkaline carbonates and sulphates decompose it by double affinity. It is best prepared by dissolving carbonate of barytes in dilute muriatic acid; and if contaminated with iron or lead, which occasionally happens, these may be separated by the addition of a small quantity of liquid ammonia, or by boiling and stirring the solution with a little barytes. Mr. Goettling recommends to prepare it from the sulphate of barytes; eight parts of which in fine powder are to be mixed with two of muriate of soda, and one of charcoal powder. This is to be pressed hard into a Hessian crucible, and exposed for an hour and a half to a red heat in a wind furnace. The cold mass, being powdered, is to be boiled a minute or two in sixteen parts of water, and then filtered. To this liquor muriatic acid is to be added by little and little, till sulphureted hydrogen ceases to be evolved; it is then to be filtered, a little hot water to be poured on the residuum, the liquor evaporated to a pellicle, filtered again, and then set to crystallise. As the muriate of soda is much more soluble than the muriate of barytes, and does not separate by cooling, the muriate of barytes will crystallise into a perfectly white salt, and leave the muriate of soda in the mother water, which may be evaporated repeatedly till no more muriate of barytes is obtained. This salt was first employed in medicine by Dr. Crawford, chiefly in scrofulous complaints and cancer, beginning with doses of a few drops of the saturated solution twice a-day, and increasing it gradually, as far as forty or fifty drops in some instances. In large doses it excites nausea, and has deleterious effects. Fourcroy says it has been found very successful in scrofula in France. It has likewise been recommended as a vermifuge; and it has been given with much apparent advantage even to very young children, where the usual symptoms of worms occurred, though none were ascertained to be present. As a test of sulphuric acid it is of great use.

The *muriate of potash*, formerly known by the

names of febrifuge salt of Sylvius, digestive salt, and regenerated sea-salt, crystallises in regular cubes, or in rectangular parallelopipedons; decrepitating on the fire, without loosing much of their acid, and acquiring a little moisture from damp air, and giving it out again in dry. Their taste is saline and bitter. They are soluble in thrice their weight of cold water, and in but little less of boiling water, so as to require spontaneous evaporation for crystallising. Fourcroy recommends to cover the vessel with gauze, and suspend hairs in it, for the purpose of obtaining regular crystals.

It is decomposable by the sulphuric and nitric acids. Barytes decomposes it, though not completely. And both silex and alumina decomposed it partially in the dry way. It decomposes the earthy nitrates, so that it might be used in salt-petre manufactories to decompose the nitrate of lime.

Muriate of soda, or common salt, is of considerable use in the arts, as well as a necessary ingredient in our food. It crystallises in cubes, which are sometimes grouped together in various ways, and not unfrequently form hollow quadrangular pyramids. In the fire it decrepitates, melts, and is at length volatilised. When pure it is not deliquescent. One part is soluble in two and a half of cold water, and in little less of hot, so that it cannot be crystallised but by evaporation. According to M. Chenevix, it is soluble in alcohol also, particularly when it is mixed with the chlorate.

Common salt is found in large masses, or in rocks under the earth, in England and elsewhere. In the solid form it is called sal gem, or rock salt. If it be pure and transparent, it may be immediately used in the state in which it is found; but, if it contain any impure earthy particles, it should be previously freed from them. In some countries it is found in incredible quantities, and dug up like metals from the bowels of the earth. In this manner has this salt been dug out of the celebrated salt mines near Bochnia and Wieliczka, in Poland, ever since the middle of the thirteenth century, consequently above these 500 years, in such amazing quantities, that sometimes there have been 20,000 tons ready for sale. In these mines, which are said to reach to the depth of several hundred fathoms, 500 men are constantly employed. The pure and transparent salt needs no other preparation than to be beaten to small pieces, or ground in a mill. But that which is more impure must be elutriated, purified, and boiled. That which is quite impure, and full of small stones, is sold under the name of rock salt, and is applied to ordinary uses; it may likewise be used for strengthening weak and poor brine-springs.

Though the salt-mines of Wieliczka, near Cracow in Poland, have long astonished the philosopher and traveller, yet it deserves to be remarked, that the quantity of rock salt obtained from the mines of Northwich is greatly superior to that obtained at Cracow. The bishop of Llandaff affirms, that a single pit, into which he descended, yielded at a medium 4000 tons of salt in a year, which alone is about two-thirds of that raised in the Polish mines. This rock salt is never used on our tables in its crude state, as the Polish rock salt is; and, though the pure transparent salt might be used with our food without any danger, yet it is prohibited under a penalty of forty shillings for every pound of rock salt so applied. It is partly purified in water, and a great part of it is sent to Liverpool, and other places, where it is used either for strengthening brine-springs or sea water.

Beside the salt mines here mentioned, where the common salt is found in a concrete state, under the name of rock salt, there is at Cordova, in the province of Catalonia in Spain, a remarkable solid mountain of rock salt: this mountain is between 400 and 500 feet in height, and a league in circuit; its depth below the surface of the earth is not known. This mountain contains the rock salt without the least admixture of any other matter.

The waters of the ocean every where abound with common salt, though in different proportions. The water of the Baltic Sea is said to contain one sixty-fourth of its weight of salt; that of the sea between England and Flanders contains one thirty-second part; that on the coast of Spain one-sixteenth part; and between the tropics it is said, erroneously, to contain from an eleventh to an eighth part.

The water of the sea contains, besides the common salt, a considerable proportion of muriate of magnesia, and some sulphate of lime, of soda, and potash. The former is the chief ingredient of the remaining liquid which is left after the extraction of the common salt, and is called the mother water. Sea water, if taken up near the surface, contains also the putrid remains of animal substances, which render it nauseous, and in a long continued calm cause the sea to stink.

The whole art of extracting salt from waters which contain it consists in evaporating the water in the cheapest and most convenient manner. In England, a brine composed of sea water, with the addition of rock salt, is evaporated in large shallow iron boilers; and the crystals of salt are taken out in baskets. In Russia, and probably in other northern countries, the sea water is exposed to freeze; and the ice, which is almost entirely fresh, being taken out, the remaining brine is much stronger, and is evaporated by boiling. In the southern parts of Europe the salt-makers take advantage of spontaneous evaporation. A flat piece of ground near the sea is chosen, and banked round, to prevent its being overflowed at high water. The space within the banks is divided by low walls into several compartments, which successively communicate with each other. At flood tide, the first of these is filled with sea water; which, by remaining a certain time, deposits its impurities, and loses part of its aqueous fluid. The residue is then suffered to run into the next compartment; and the former is again filled as before. From the second compartment, after a due time, the water is transferred into a third, which is lined with clay well rammed and levelled. At this period the evaporation is usually brought to that degree, that a crust of salt is formed on the surface of the water, which the

workmen break, and it immediately falls to the bottom. They continue to do this until the quantity is sufficient to be raked out, and dried in heaps. This is called bay salt.

In some parts of France, and also on the coast of China, they wash the dried sands of the sea with a small proportion of water, and evaporate this brine in leaden boilers.

There is no difference between this salt and the lake salt extracted from different lakes, excepting such as may be occasioned by the casual intervention of some substances. In this respect the Jeltonic salt water lake, in the Russian dominions, near Saratow and Dmitrewsk, deserves our attention. In the year 1748, when the Russians first fetched salt thence, the lake was almost solid with salt; and that to such a degree, that they drove their heavy waggons over it, as over a frozen river, and broke up the salt. But since the year 1757 the water has increased so much, that at this time it is nothing more than a lake very strongly impregnated with salt. The Jeltonic lake salt contains at the same time alum and sulphate of magnesia.

At several places in Germany, and at Montmarot in France, the waters of salt springs are pumped up to a large reservoir at the top of a building or shed; from which it drops or trickles through small apertures upon boards covered with brush-wood. The large surface of the water thus exposed to the air causes a very considerable evaporation; and the brine is afterwards conveyed to the boilers for the perfect separation of the salt.

To free common salt from those mixtures that render it deliquescent, and less fit for the purposes to which it is applied, it may be put into a conical vessel with a small aperture at the point, and a saturated solution of the muriate of soda boiling hot be poured on it. This solution will dissolve and carry off any other salts mixed with the soda, and leave it quite pure, by repeating the process three or four times.

From this salt, as already observed, the muriatic acid is extracted; and of late years to obtain its base separate, in the most economical mode, for the purposes of the arts, has been an object of research. The process of Scheele, which consists in mixing the muriate of soda with red oxide of lead, making this into a soft paste with water, and allowing it to stand thus for some time, moistening it with water as it gets dry, and then separating the soda from the muriate of lead by lixiviation, has been resorted to in this country. Mr. Turner some years ago had a patent for it; converting the muriate of lead into a pigment, which was termed mineral or patent yellow, by heating it to fusion. The oxide of lead should be at least twice the weight of the salt. This would have answered extremely well, had there been an adequate and regular demand for the pigment. At present, we understand, the greater part of the carbonate of soda in the market is furnished by decomposing the sulphate of soda left, after the muriatic acid is expelled in the usual way of manufacturing it from common salt. Various processes for this purpose were tried in France, and made public by the French government, all depending on the principle of decomposing the acid of the sulphate by charcoal, and at the same time adding some other material to prevent the soda from forming a sulphuret. What they consider as the best is to mix the sulphate of soda with an equal weight of chalk, and rather more than half its weight of charcoal powder, and to expose the mixture in a reverberatory furnace to a heat sufficient to bring them to a state of imperfect liquefaction. Much of the sulphur formed will be expelled in vapor and burned, the mixture being frequently stirred to promote this; and this is continued till the mass on cooling assumes a fine grain. It is then left exposed to a humid atmosphere, and the carbonate of soda may be extracted by lixiviation, the sulphur not consumed having united with the lime. Tinmen's shreds, or old iron, may be employed instead of chalk, in the proportion of sixty-five parts to 200 of sulphate of soda, and sixty-two of charcoal; or chalk and iron may be used at the same time in different proportions. The muriate of soda might be decomposed in the first instance by the sulphate of iron, instead of the sulphuric acid. The carbonate of soda thus prepared, however, is not free from sulphur; and Dizé recommends the abstraction of it by adding litharge to the lixivium in a state of ebullition, which will render the alkali pure. Oxide of manganese was substituted in the same way with equal success; and this may be used repeatedly, merely by calcining it after each time, to expel the sulphur.

Mr. Accum gives the following method, as having answered extremely well in a soda manufactory in which he was employed:—500 lbs. of sulphate of soda, procured from the bleachers, who make a large quantity in preparing their muriatic acid from common salt, were put into an iron boiler with a sufficient quantity of soft water. Into another boiler were put 560 lbs. of good American potassa, or 570 if the potassa was indifferent, dissolved in about thirty pails of water, or as little as possible. When both were brought to boil, the solution of potassa was ladled into that of sulphate of soda, agitating the mixture, and raising the fire as quickly as possible. When the whole boiled, it was ladled into a wooden gutter, that conveyed it to a wooden cistern lined with lead nearly half an inch thick, in a cool place. Sticks were placed across the cistern, from which slips of sheet lead, two or three inches wide, hung down into the fluid about four inches distant from each other. When the whole was cold, which in winter was in about three days, the fluid was drawn off, the crystallised salt was detached from the slips of lead, and the rock of salt fixed to the bottom was separated by a chisel and mallet. The salt being washed in the same cistern, to free it from impurities, was then returned to the boiler, dissolved in clear water, and evaporated till a strong pellicle formed. Letting it cool till the hand could be dipped in, it was kept at this temperature as long as pellicles would form over the whole surface, and fall to the bottom. When no more pellicles appeared without blowing on the surface, the fire was put out, and the solution returned into the cistern to crystallise. If the solution be suffered to cool pretty low, very little

sulphate of potassa will be found mixed with the soda; but the rocky masses met with in the market generally contain a pretty large quantity. In the process above described, the produce of the mixed salt from 100 lbs. of sulphate of soda was in general from 136 to 139 lbs.

Beside its use in seasoning our food, and preserving meat both for domestic consumption and during the longest voyages, and in furnishing us with the muriatic acid and soda, salt forms a glaze for coarse pottery, by being thrown into the oven where it is baked; it improves the whiteness and clearness of glass; it gives greater hardness to soap; in melting metals it preserves their surface from calcination, by defending them from the air, and is employed with advantage in some assays; it is used as a mordant, and for improving certain colors, and enters more or less into many other processes of the arts.

The *muriate of strontian* has not long been known. Dr. Hope first distinguished it from muriate of barytes. It crystallises in very slender hexagonal prisms, has a cool pungent taste, without the austerity of the muriate of barytes, or the bitterness of the muriate of lime; is soluble in 0·75 of water at 60°, and to almost any amount in boiling water; is likewise soluble in alcohol, and gives a blood-red color to its flame.

It has never been found in nature, but may be prepared in the same way as the muriate of barytes.

The *muriate of lime* has been known by the names of marine selenite, calcareous marine salt, muria, and fixed sal ammoniac. It crystallises in hexahedral prisms terminated by acute pyramids; but if the solution be greatly concentrated, and exposed to a low temperature, it is condensed in confused bundles of needly crystals. Its taste is acrid, bitter, and very disagreeable. It is soluble in half its weight of cold water, and by heat in its own water of crystallisation. It is one of the most deliquescent salts known; and when deliquesced has been called oil of lime. It exists in nature, but neither very abundantly nor very pure. It is formed in chemical laboratories, in the decomposition of muriate of ammonia; and Homberg found, that if it was urged by a violent heat till it condensed, on cooling, into a vitreous mass, it emitted a phosphoric light upon being struck by any hard body, in which state it was called Homberg's phosphorus. Hitherto it has been little used except for frigorific mixtures; and with snow it produces a very great degree of cold. Fourcroy, indeed, says he has found it of great utility in obstructions of the lymphatics, and in scrofulous affections.

The *muriate of ammonia* has long been known by the name of sal ammonia, or ammoniac. It is found native in the neighbourhood of volcanoes, where it is sublimed sometimes nearly pure, and in different parts of Asia and Africa. A great deal is carried annually to Russia and Siberia from Bucharian Tartary; and we formerly imported large quantities from Egypt, but now manufacture it at home. See AMMONIA. This salt is usually in the form of cakes, with a convex surface on one side, and concave on the other, from being sublimed into large globular vessels; but by solution it may be obtained in regular quadrangular crystals. It is remarkable for possessing a certain degree of ductility, so that it is not easily pulverisable. It is soluble in three parts and a half of water at 60°, and in little more than its own weight of boiling water. Its taste is cool, acrid, and bitterish. Its specific gravity is 1·42. It attracts moisture from the air but very slightly.

Muriate of ammonia has been more employed in medicine than it is at present. It is sometimes useful as an auxiliary to the bark in intermittents; in gargles it is beneficial, and externally it is a good discutient. In dyeing it improves or heightens different colors. In tinning and soldering it is employed to preserve the surface of the metals from oxidation. In assaying it discovers iron, and separates it from some of its combinations.

The *muriate of magnesia* is extremely deliquescent, soluble in an equal weight of water, and difficultly crystallisable. It dissolves also in few parts of alcohol. It is decomposable by heat, which expels its acid. Its taste is intensely bitter. With ammonia this muriate forms a triple salt, crystallisable in little polyhedrons, which separate quickly from the water, but are not very regularly formed. Its taste partakes of that of both the preceding salts. The best mode of preparing it is by mixing a solution of twenty-seven parts of muriate of ammonia with a solution of seventy-three of muriate of magnesia; but it may be formed by a semi-decomposition of either of these muriates by the base of the other. It is decomposable by heat, and requires six or seven times its weight of water to dissolve it.

Of the *muriate of glucine* we know but little. It appears to crystallise in very small crystals; to be decomposable by heat; and, dissolved in alcohol and diluted with water, to form a pleasant saccharine liquor.

Muriate of alumina is scarcely crystallisable, as on evaporation it assumes the state of a thick jelly. It has an acid, styptic, acrid taste. It is extremely soluble in water, and deliquescent. Fire decomposes it. It may be prepared by directly combining the muriatic acid with alumina, but the acid always remains in excess.

The *muriate of zircon* crystallises in small needles, which are very soluble, attract moisture, and lose their transparency in the air. It has an austere taste, with somewhat of acrimony. It is decomposable by heat. The gallic acid precipitates from its solution, if it be free from iron, a white powder. Carbonate of ammonia, if added in excess, redissolves the precipitate it had before thrown down.

Muriate of yttria does not crystallise when evaporated, but forms a jelly; it dries with difficulty, and deliquesces.

Fourcroy observes, that when siliceous stones, previously fused with potassa, are treated with muriatic acid, a limpid solution is formed, which may be reduced to a transparent jelly by slow evaporation. But a boiling heat decomposes the siliceous muriate, and the earth is deposited. The solution is always acid. See SALT, CHEMISTRY, and CHLORINE.

MURIATIC ACID OXYGENATED. See CHLORINE.

MURILLO (Bartholemew-Stephen,) a celebrated painter, born at Pilas near Seville, in 1613. He was instructed by his uncle John del Castillo, an artist of some note; but his principal knowledge of the art was derived from Velasquez. Some say that he studied at Rome; but Velasco, a Spanish author, affirms that he never was in Italy, but arrived at excellence by copying the works of Titian, Rubens, and Vandyck, in Madrid and the Escurial. He was employed by the king of Spain to execute several historical pictures, which being afterwards sent to Rome, as a present to the pope, the Italians were so much pleased, that they styled him a second Paul Veronese. He designed and finished several grand altar-pieces, for the churches at Madrid, Seville, Cordova, Cadiz, Granada, and Flanders. His favorite subjects were beggar boys, as large as life. His original pictures have great merit, and are admitted into the most capital collections. He died in 1685.

MURK, *n. s.* } Dan. *morck*, dark. DARK-
MURKY, *adj.* } ness; want of light.

Ere twice in *murk*, and occidental damp,
Moist Hesperus hath quenched his sleepy lamp.
Shakspeare.

The *murkiest* den,
The most opportune place, the strongest suggestion,
Shall never melt mine honour into lust. *Id.*

So scented the grim feature, and up-turned
His nostrils wide into the *murky* air,
Sagacious of his quarry.
Milton's Paradise Lost.

A *murky* storm deep lowering o'er our heads
Hung imminent, that with impervious gloom
Opposed itself to Cynthia's silver ray. *Addison.*

Nature gladdening and adorning;
Such to me my lovely maid.
When absent frae my fair,
The *murky* shades o' care
With starless gloom o'ercast my sullen sky.
Burns.

Her hair was dripping, and the very balls
Of her black eyes seemed turned to tears and *murk*.
The sharp rocks looked below each drop they caught,
Which froze to marble as it fell, she thought.
Byron.

MUR'MUR, *n. s. & v. n.* } Fr. *murmure*; Lat.
MUR'MURER, *n. s.* } *murmur*. A low suppressed tone of the voice; a half-uttered complaint: to utter such sound or complaint.

The *murmuring* surge,
That on the' unnumbered idle pebbles chafes,
Can scarce be heard so high.
Shakspeare. King Lear.

Heaven's peace with him!
That's christian care enough; for living *murmurers*
There's places of rebuke. *Id. Henry VIII.*

Flame, as it moveth within itself, or is blown by a bellows, giveth a *murmur* or interior sound.
Bacon's Natural History.

Some discontents there are; some idle *murmurs*;
—How idle *murmurs!*
—The doors are all shut up; the wealthier sort,
With arms across, and hats upon their eyes,
Walk to and fro before their silent shops. *Dryden.*

The busy bees, with a soft *murmuring* strain,
Invite to gentle sleep the labouring swain. *Id.*

The good we have enjoyed from heaven's free will;
And shall we *murmur* to endure the ill? *Id.*

The *murmurer* is turned off to the company of those doleful creatures which were to inhabit the ruins of Babylon. *Government of the Tongue.*

Still might the discontented *murmurer* cry,
Ah, hapless fate of man! Ah wretch, doomed once to die! *Blackmore on the Creation.*

Murmur not at your sickness, for thereby you will sin against God's providence. *Wake.*

When the winged colonies first tempt the sky,
Or, setting, seize the sweets the blossoms yield,
Then a low *murmur* runs along the field. *Pope.*

Amid an isle around whose rocky shore
The forests *murmur*, and the surges roar,
A goddess guards in her enchanted dome. *Id.*

The good consequences of this scheme, which will execute itself without *murmuring* against the government, are very visible. *Swift.*

Flow gently, sweet Afton, among thy green braes,
Flow gently, I'll sing thee a song in thy praise;
My Mary's asleep by thy *murmuring* stream,
Flow gently, sweet Afton, disturb not her dream.
Burns.

Trouble is grudgingly and hardly brooked,
While life's sublimest joys are overlooked:
We wander o'er a sun-burnt thirsty soil,
Murmuring and weary of our daily toil,
Forget to enjoy the palm-tree's offered shade,
Or taste the fountain in the neighbouring glade.
Cowper.

And not a word of *murmur*—not
A groan, o'er his untimely lot. *Byron.*

MUROM, a town in the government of Vladimir, in the central part of European Russia. It stands at the confluence of the Muromka and Oka, and has a brisk trade. It is built of wood; and in 1805 eighty houses were destroyed by fire. Inhabitants 6500. Sixty-two miles E. S. E. of Vladimir.

MURPHY (Arthur), an ingenious miscellaneous writer, was born at Clooniquin, in the county of Roscommon, in 1727. He lost his father early in life; but his mother gave him a good education at St. Omer's, from whence he returned in 1744, and was placed in the counting-house of an uncle at Cork, which he soon quitted; and, in 1751, came to London, and began The Grey's Inn Journal. He also made an attempt on the stage, but failed; after which he turned his attention to the law, and, though refused admittance in the Temple, was called to the bar at Lincoln's Inn, in 1762. His chief dependence, however, was upon his literary exertions. His Grecian Daughter, a tragedy; All in the wrong, and The way to keep Him, comedies; with the smaller pieces of The Citizen, The Old Maid, and Three Weeks after Marriage, still hold their place among acting plays. Mr. Murphy was likewise a political writer, and author of The Test, and the Auditor, papers in favor of lord Bute against Wilkes. He also wrote An Essay on the Life of Fielding, for an edition of that author's works. In 1792 he published An Essay on the Life and Genius of Dr. Johnson; and the year following his Translation of Tacitus, in 4 vols. 4to. In 1798 he printed a dramatic poem, entitled Arminius; and a Life of Garrick. Lord Loughborough appointed him a commissioner of bankrupts; and he also obtained a pension from the crown. He died in 1805; after his death was published his translation of Sallust.

MUR'RAIN, *n. s.* Sax. mopnina. There is also a Fr. *marrane*, a pining melancholy. Low Lat. *muriana*. Skinner derives it from *mori*, to die. The plague in cattle.

Away ragged rams, care I what *murrain* kill.
Sidney.

Some trials would be made of mixtures of water in ponds for cattle, to make them more milch, to fatten, or to keep them from *murrain*. *Bacon.*

A hallowed band
Could tell what *murrains*, in what months begun.
Garth.

MURRAIN, or gargle, is a contagious disease incident to cattle. The symptoms are, a hanging down and swelling of the head, abundance of gum in the eyes, rattling in the throat, a short breath, palpitation at the heart, staggering, a hot breath, and a shining tongue. To prevent this disease, the cattle should stand cool in summer, and have plenty of good water. All carrion should be speedily buried; and as the feeding of cattle in wet places, on rotten grass and hay, often occasions this disease, dry and sweet fodder should be given them.

MURRAY (James, earl of), a natural son of king James V., by a daughter of the earl of Mar, was born in 1529. He was created earl of Murray by queen Mary, to whom he made not the most grateful return. In 1567 he was appointed regent of Scotland, in the minority of king James VI.; but was shot in Linlithgow by one Hamilton, in 1571. See SCOTLAND.

MURRAY (William), earl of Mansfield, the fourth son of David, earl of Stormont, was born at Perth, in 1705. He was educated at Westminster, and studied at Christ Church, Oxford, where he took his degrees. He afterwards travelled, and on his return entered at Lincoln's Inn, and in due course was called to the bar, where he soon distinguished himself by his abilities as an advocate. On the 20th November, 1738, he married lady Elizabeth Finch, daughter of lord Winchelsea. In 1742 he was appointed solicitor-general, and elected M. P. for Borough-Bridge. In 1754 he was appointed attorney-general, and in 1756 lord chief justice of the King's Bench, in the practice of which court he made many improvements. He was soon after created baron Mansfield. In 1757 he was appointed chancellor of the exchequer. In 1776 he was created earl of Mansfield. In 1780, when London was a scene of anarchy, his lordship's house in Bloomsbury Square was burnt by a lawless mob; his valuable library and MSS. annihilated, and even his person endangered. See ENGLAND. A resolution of the house of commons was passed to make him a compensation for his loss; but he generously refused to accept of any. Indeed, no pecuniary recompense could make up for the loss of so great a man's MSS., either to him or to the republic of letters. In June 1788 he was obliged by the infirmities of age to resign his office; on which occasion he received a most respectful address from the gentlemen of the bar, transmitted to him in their name by the honorable Thomas Erskine. He died March 20th, 1793, aged eighty-nine, and his remains lie interred in Westminster Abbey, between those of the earl of Chatham and lord Robert Manners. As he died without issue, his titles and fortune descended to his nephew, the earl of Stormont.

MURRAY (Richard), D. D., provost of Trinity College, Dublin, was born in 1726. After the usual course of study, he became a fellow of Trinity College about 1748, and was afterwards appointed professor of mathematics; in which office he displayed uncommon abilities as a teacher. There was a simplicity, precision, and clearness in his method, by which he conveyed his ideas, even on the difficult and abstract science of analytics, with the greatest ease and accuracy; while the comprehensive view which he exhibited, of every branch of mathematics, proved him to possess a most vigorous understanding. He was afterwards promoted to the provostship, by earl Fitzwilliam, with the approbation of the whole University. From his abilities and length of standing, as well as from his offices, he was considered as the father of the University; in which he always preserved the most perfect concord, which his predecessors had failed to do. He published an Epitome of Logic, which is much esteemed. He was so constantly devoted to study, that he never married. Though his income exceeded his expenses by at least £500 a-year, and during the last four years had £3000 a-year, yet his private charities were so numerous, that he did not leave above £4000 at his death. He died at Dublin of a spasmodic affection in his stomach, on Tuesday, June 20, 1799, aged seventy-three.

MURRAY (Alexander), D. D., professor of Hebrew in the university of Edinburgh, was born in Kirkcudbright, October 1775. Of a feeble bodily constitution, and in a residence far from the parochial school, he enjoyed the benefit of a teacher not more than two years; but an early maturity of genius, joined to ardent application and unwearied perseverence, overcame every obstacle, and raised him to a very high rank in the literary world. Even in his juvenile days, while actively employed in the pastoral life, young Murray gave proofs of a poetical genius, and gained an intimate acquaintance with many of the best English authors. He had made great progress, during this period, in the acquisition of languages; insomuch, that at the age of seventeen he was able to translate, with accuracy and without premeditation, the Hebrew language, before he ever heard a word of it pronounced.—On account of his humble station, and the early death of his father, Mr. Murray had little prospect of advancement; but Mr. Maitland, who knew his worth and watched his progress, patronised him, and stimulated his exertions. He sent him, in 1793, to the university of Edinburgh, and recommended him strongly to Dr. Baird, the principal of that university; who, astonished at the richness of his genius, and the extent of his acquirements, with a generosity worthy of himself, took the young student under his particular care, and continued to the end of his life his warm, zealous, and steady friend. In Mr. Murray's course through the various literary classes, and by his theological exercises, he greatly distinguished himself; and the variety of his information and the splendor of his talents pro-

cured him an acquaintance extensive, learned, and respectable. During his attendance at the university, he supported himself in a respectable manner by teaching Latin, Greek, and some of the eastern languages. He was employed for a considerable time as correcter of a press; and by Mr. Constable as editor of the Scots Magazine, in which were inserted some of his own original essays and poetical pieces. In both these engagements he acquitted himself to the complete satisfaction of his employers. His knowledge of languages, and his talents as a critic, being now conspicuous, he was again employed by Mr. Constable in editing the travels, and writing a life of the celebrated Mr. Bruce. Mr. Murray, having been licensed by the presbytery of Edinburgh, accepted a presentation, and was ordained minister of Urr, in 1806; and in 1808 married a young lady whom he had long known and loved, who brought him a son and daughter, and to whom the government, after his death, granted a liberal annuity. Having obtained a slight knowledge of the Ethiopic alphabet in his youth, and prosecuting the study at college by the help of Ludolph's dictionary and the Polyglot Bible, Mr. Murray acquired a complete acquaintance with that ancient language. In conconsequence of this, which his edition of Bruce's Travels made manifest, he was requested to translate a letter in the Ethiopic tongue from the king of Abyssinia to our government. The accuracy and despatch with which he executed the commission added to his reputation, and laid the foundation of his future advancement; for on the death of the Rev. D. Moodie, in the following year, 1812, all eyes were turned upon Dr. Murray; and, although there was a strong contest between his friends and those of a respectable competitor, yet he was instituted professor of Hebrew and oriental languages in the university of Edinburgh. In the autumn following his appointment he prepared lectures for his class, and a syllabus, entitled Outlines of Oriental Philosophy, which was published in December following. He commenced his course with great brilliancy; and his introductory lectures, which were highly appropriate and ingenious, were received with much applause by a class consisting not only of theological students, but of many gentlemen whose attendance was commanded by the character and talents of the teacher. But his great exertions overpowered him; his spirits sunk at the prospect of having more to do than his feeble frame and impaired health were able to accomplish. An hereditary asthmatic affection, which severe study increased, now rose to an alarming height, and finally hurried him from the scene of his labors on the 15th of April 1813, at the early age of thirty-seven. The talents of Dr. Murray entitled him to an elevated rank among literary characters. His knowledge of philology was most extensive and profound; and all his works show great ingenuity, strong judgment, and deep penetration. His principal work, The History of European Languages, though a posthumous publication, for erudition, originality, and accuracy, will entitle its author to the unqualified praise of the present day, and will procure him the respect and gratitude of future ages. Besides his essays in the Scots magazine, already mentioned, Dr. Murray wrote several ingenious and learned articles in the Edinburgh Review, with some poems on important subjects.

Murray (Lindley), an English grammarian and didactic writer, was born in 1745, at Swetara, in Pennsylvania, North America. His father, a member of the society of Friends, was the proprietor of a flour-mill there; but, becoming in 1753 a merchant at New York, it was his earnest wish to bring up his son to his own pursuits; but after receiving a good education he was allowed to study the law, and was admitted a member of the American bar. He soon after married: and, though his practice as a lawyer was at first considerable, it received an interruption from a visit which he paid to England: but on his return to New York, in 1771, he resumed it with success. On the commencement of the disputes with the mother country, Mr. Murray, whose religion prevented his taking an active part in the struggle, retired to Islip, in Long Island, where he employed the leisure which he possessed in an unsuccessful attempt to manufacture salt. The bar holding out, at this period, but little prospect, he became, like his father, a general merchant, and, about the period of the establishment of American independence, found himself enabled to retire from business with a competency. But his health had received a severe shock, and, the air of Yorkshire being especially recommended to him, he was induced to take a second voyage to England. At Holdgate, a village of that county, he found a small estate which exactly suited his wishes, and continued to reside upon it till his death. For many years all exercise, with the exception of airings in his carriage, was too severe for his shattered frame; his mind, however, continued in full vigor, and his protracted confinement was much alleviated by the composition of various instructive works. The first was a tract entitled The Power of Religion on the Mind, of which he printed and distributed gratuitously 500 copies, till the popularity which it obtained induced him to make a present of the copyright to Messrs. Longmans' the booksellers, under whose auspices it ran through no fewer than seventeen editions. His next work, and that by which he is best known, was his English Grammar, published in a small form, 1795, and succeeded by his English Exercises, and Key, calculated to correspond with, and illustrate the Grammar, an abridgment of which treatises was, in 1797, published in conjunction. His other works are, The English Reader, with an Introduction and Sequel, subsequently composed; two compilations, on the same plan, in the French language, Le Lecteur François, and Introduction au Lecteur François; The English Spelling Book; a Selection from Horne's Commentary on the Psalms; and The Duty and Benefit of Reading the Scriptures. Mr. Murray was seized with paralytic affection 10th of January, 1826, which terminated his mortal career on the 16th of February following.

Murray's Islands, three islands of the Eastern Seas, in Torres Straits, between New Guinea and New Holland. The largest is only two

miles long, by something more than one in breadth, and lies high. The two smaller isles seem to be single hills. Captain Flinders saw several Indians here, and thought the islands might contain altogether 700 inhabitants. The natives are of a dark chocolate color, active and muscular men, about the middle size, and of expressive countenances. They go quite naked, with the exception of some ornaments of shell work. These islands were discovered by Edwards, in the Pandora, in the year 1790, who spoke of them as four in number. Long. of the largest, 144° 2′ E., lat. 9° 54′ S.

Murray's Islands, some small islands on the south-west coast of the county of Kirkcudbright, Scotland, at the mouth of Fleet Bay, eleven or twelve miles N. N. E. of Burrow Head.

MURRAYSHIRE, Morayshire, or Elginshire, a county in Scotland. It formerly included part of Inverness, Banff, and Nairn, besides the present county; but the name is now confined to this district, situated between 57° 12′ and 57° 43′ N. lat., and between 3° 2′ and 3° 58′ W. long., extending about forty miles from north-east to south-west, and in breadth from eight to fourteen miles in the interior, but upon the coast from seventeen to twenty-three miles. It contains, including its lakes, 480 square miles, or 307,200 English acres, of which only about a third is productive. The county of Moray has the frith of that name on the north, Banffshire on the east, Inverness-shire on the south, and Nairnshire on the west. The river Spey, which, with a few exceptions, separates it from Banffshire, is commonly considered its eastern boundary. On the south it is intersected by a part of Inverness-shire, by which two parishes, Abernethy and Duthil, partly in this county, are detached from the body of it. It is divided into fifteen entire parishes, and contains part of nine parishes more, the rest of which are situated in the counties adjacent.

The low grounds along the coast vary in breadth, southward, from five to twelve miles; and the mountains which occupy the interior are diversified by considerable tracts of low land, particularly on the branches of the Spey and Findhorn. The climate, soil, and productiveness of these two divisions of the county are very different. On the coast the climate is supposed to be as good as that of any part of Scotland, in regard both to heat and dryness; and, the prevailing soil being a sandy loam, it in many parts affords plentiful and early crops. The wind blows from westerly points for almost three-fourths of the year. Easterly winds, however, prevail in the spring months, to the injury of vegetation.

Among the mountains the winters are severe; more rain falls than on the coast; and the labors of the harvest are often not brought to a close till the crops are covered with snow. Limestone, sandstone, and slate, with marl, abound here. The rivers are the Spey, the Lossie, and the Findhorn. The Spey has a course of thirty miles before it enters Morayshire, at Aviemore, from which it flows in a deep channel, and with a considerable fall, till it empties itself, after describing a line of about ninety-six miles in all into the sea at Speymouth Bay. It is only navigable near its mouth, for small vessels; but it affords the means of bringing down to the sea the forests on its banks; and the rents of its salmon fisheries have exceeded £7000 per annum. The Lossie flows parallel to the Spey, about ten miles distant, and after a course of twenty-four miles, during which it works a number of mills, falls into the sea at Lossiemouth, about six miles to the north of Elgin. The Findhorn flows from south to north, and enters the Frith of Moray at the village that bears its name, having traversed Inverness-shire (where it has its source), Nairnshire, and this county, for a distance of sixty miles. There is a valuable salmon fishery on this river. The principal lakes are Loughnaboe, which covers about sixty acres; Lough Spynie, which formerly spread over more than 2000 acres, but has been since almost drained; Inchstellie, Lochloy, and Loughnadurb, containing an island on which there are the remains of an ancient fortress. Chalybeate springs are found in every quarter.

The farms on the coast do not often exceed 400 acres in extent, and the greater number are below 150. The larger farms are generally held on leases for nineteen years, but many of the smaller tenants have no lease. This part of the county produces all the species of corn grown in Scotland, turnips, potatoes, and clover. In the higher district, barley and oats, with potatoes, are almost the only crops. The native cattle here have been improved, by crossing them with the West Highland race; and the sheep, originally similar to those of Shetland, have in many parts given way to the Linton, or black-faced race, and other breeds. On the small farms, in the mountain district, the horses are very diminutive.

Murrayshire has few manufactures. There are tanneries at Forres and Elgin; and, at the latter place, a tawing work of some consideration. The chief exports are cattle, corn, and salmon. The value of the salmon has been stated at about £25,000, and that of all the other exports at £30,000 yearly. The towns and villages are, Elgin (the county town), Forres, Garmouth, Urquhart, Lossemouth, Bishopmill, Findhorn, Rothes, and Balnatom. The first two are burghs; Elgin is joined with Cullen, Banff, Inverary, and Kintore; and Forres with Inverness, Nairn, and Fortrose, in the election of members of parliament.

1800.

Houses.			Persons.		Occupations.			
Inhabited.	By how many families occupied.	Uninhabited.	Males.	Females.	Persons chiefly employed in Agriculture.	Persons chiefly employed in Trade, Manufactures, or Handicraft.	All other Persons not comprised in the two preceding classes.	Total of Persons.
5992	6354	134	11,763	14,942	8131	4410	14,164	26,705

1811.

Houses.			Persons.		Occupations.			
Inhabited.	By how many Families occupied.	Uninhabited.	Males.	Females.	Familes chiefly employed in Agriculture.	Families chiefly employed in Trade, Manufactures, or Handicraft.	All other Families not comprised in the two preceding classes.	Total of Persons.
6268	6854	197	12,401	15,707	2635	1886	2333	28,108

MURRE, *n. s.* Wel. *mowran.* A kind of bird. The sea crow.

Among the first sort we reckon coots, meawes, murres, creysers, and curlews. *Carew.*

MURREY, *adj.* Fr. *morêe*; Ital. *morello*, from *moro*, a moor. Darkly red.

Leaves of some trees turn a little *murrey* or reddish. *Bacon.*

Painted glass of a sanguine red, will not ascend in powder above a *murrey*. *Browne's Vulgar Errours.*

They employ it in certain proportions, to tinge their glass both with red colour, or with a purplish or *murrey*. *Boyle.*

Cornelius jumps out, a stocking upon his head, and a waistcoat of *murrey*-colored sattin upon his body. *Arbuthnot.*

MURRHINA Vasa, or Murrhine Vessels, Μορρινα, in antiquity, a delicate sort of cups and vases brought from the east, which added not a little to the splendor of the Roman banquets. Critics are divided concerning the nature of the pocula or vasa murrhina, or murrhæa. Some will have them to have been the same with our porcelain or china-ware. The generality hold them to have been made of some precious stone, found chiefly, as Pliny says, in Parthia and Caramania. Arrian tells us, that there was a great quantity of them made at Diospolis in Egypt. This he calls another sort of murrhina work; and it is evident, from all accounts, that the murrhina of Diospolis was a sort of glass ware, made in imitation of the porcelain or murrha of India. Pliny says, the murrhina vasa would not bear hot liquors; but Martial tells us that they bore hot liquors very well. Some suppose them to have been of agate, others of onyx, others of coral. Baronius took them to be made of myrrh, congealed and hardened. Some suppose these vessels to have been made of crystal; but this is contrary to the account of all the ancients. The Greeks had the words κρυσταλλο for crystal, and σμυρνη for myrrh; and therefore, if these vessels had been made of either of these substances, they would have called them smyrna or crystallina. On the contrary, the most correct among them call them murrhina, myrrhina, or morrina. The cups made of crystal, which were also used at those times, were called crystallina, and these murrhina or murrhæa, by way of distinction; and Martial says that the stone they were made of was spotted or variegated, calling them pocula maculosæ murræ. Statius mentions the crystalline and murrhine cups in the same sentence, but as different things. Arrian mentions also the λιθος μορρια; which his interpreters censure as an error of the copies, and would alter into myrrha, the name of gum myrrh. Pompey was the first who brought these vessels out of the east which he exhibited in his triumph, and dedicated to Jupiter Capitolinus. But private persons were not long without them. So fond did the Romans grow of them, that a cup which held three sextaries was sold for seventy talents. T. Petronius, before his death, to vex Nero, broke a basin, trulla murrhina, valued at 300 talents, on which that emperor had set his heart.

MUR'RION, *n. s.* Written also morion. Junius derives it from Lat. *murus.* A helmet; a casque; armour for the head. See Morion.

Their beef they often in their *murrions* stewed,
And in their basket-hilts their beverage brewed.
King.

MURVIEDRO, or Morviedro, the ancient Saguntum, a walled town of Spain, in the province of Valencia, situated at the foot of a mountain of black marble, about a league from the

sea. It is long, but narrow. The walls are flanked by round towers, and the interior is gloomy and disagreeable. The houses are of mean appearance, and the streets very narrow; but the suburbs are more agreeable. Here are brandy distilleries; but the chief trade is in oil, wine, wheat, and silk. This town has various remains of antiquity. Celtiberian and Roman inscriptions are frequently discovered; but of the numerous statues of Saguntum only two fragments are to be seen. On the other hand the Roman theatre and circus are in good preservation. On the mountain above the town is the castle erected by the Moors. Population 5100. Thirteen miles north-east of Valencia.

MUS, in zoology, a numerous genus of quadrupeds, belonging to the order of glires, called murine quadrupeds by Mr. Kerr. The characters are these: the upper fore teeth are wedge-shaped; there are three grinders, sometimes though rarely only two, on each side of the jaws; and the clavicles or collar bones are complete.

1. M. agrarius, the rustic mouse, is about three inches long, and scarcely weighs half an ounce; the tail is only about half the length of the body and head: the upper part of the body is yellowish, with a dark line along the back; the belly and the legs are white; the head is oblong, with a sharp nose, and small ears lined with fur; the hind legs have each a dusky circle above the foot. They inhabit Russia and Silesia, but are rare in Germany; they are migratory, and wander about in vast multitudes, doing immense injury to the corn. They burrow in the ground, forming a long gallery just below the surface, and a little elevated, leading to a larger chamber, in which considerable quantities of grain and seeds are stored up for winter.

2. M. alliarius, the garlic mouse, has a short tail, the ears rather large and somewhat hairy; the body ash-colored on its upper parts, and whitish underneath. The head and body measure somewhat more than four inches, the tail scarcely an inch and a half. This species inhabits Siberia, about the rivers Jenisei, Kan, Lena, and Angara; and feeds on the roots of garlic, laying up large stores in subterraneous burrows.

3. M. Americanus, the American rat, has a long, naked, and scaly tail: the head is long-shaped, with a narrow pointed nose, the upper jaw being much longer than the lower; the ears are large and naked. It is larger than the black, and smaller than the brown rat; its color is a deep brown, inclining to ash on the belly, and the fur is coarse and harsh. This species is said (Kalm's Travels, ii. 48) to live among the stones and clefts of rocks in the Blue Mountains of Virginia, at a distance from the peopled part of the country. They come out only at night, and make a terrible noise.

4. M. amphibius, the water rat, with a long tail; the upper parts of the body are covered with black hair mixed with yellowish, and the under parts ash-colored; the ears scarcely appear above the fur; the feet have three toes each, and the rudiments of a fourth. This species, of which there are several varieties, differing in the toes and in the color, inhabit all Europe, the north part of Asia as far as the Icy Sea, and North America. They dwell chiefly near waters, forming burrows in their steep banks; about ponds and ditches; likewise in marshy places, meadows, and gardens; feeding on roots, herbs, and shrubs; and on frogs, craw-fish, insects, small fish, and the fry of larger ones. They swim and dive with great facility, and live much in the water. They are very fierce, and bite severely. Their flesh is reckoned very delicate by the savage inhabitants of Russia; and is eaten by the French along with that of the otter, in Lent. The female is smaller than the male, and is yellower; she has eight teats, four of which are placed on the breast, and four on the belly. They procreate about the end of winter, when they smell strongly of musk, and produce eight young ones in April.

5. M. arvalis, the meadow mouse, is from three to six inches long, the female being much longer than the male, and the tail is little more than an inch: the head is large, with a blunt nose, short ears almost hid in the fur, and prominent eyes; the upper parts of the body are of a mixed ferruginous and black color; the belly is deep ash, and the legs and feet dusky; the tail is terminated by a small tuft of hair. There is a variety which is almost black. This species inhabits all Europe, Siberia, Hyrcania, and Newfoundland; dwelling in bushy places, corn fields, meadows, and gardens, chiefly near waters: living on grain, nuts, acorns, and walnuts, which they collect into subterraneous burrows; but prefer corn to every other food. When the grain is ripe they assemble from all quarters, and often do great damage by cutting the stalks of corn to get at the ears. They follow the reapers and eat up all the fallen grain. When the gleanings are devoured they flock to the new sown fields, and eat up the seed. In winter most of them retire into the woods, where they feed upon filberts, acorns, and seeds of trees. In some years they appear in numbers so immense that they would destroy every thing if they continued long; but they always kill and eat one another during a scarcity. They are also devoured by the long-tailed field mice, by foxes, wild cats, and weasels. They are often carried home in sheaves of corn, and 100 of them have been found in housing a rick. In such cases it has been observed that the dogs devoured all the mice of this sort they could find, rejecting the common kind; while cats would touch none but the last. The female produces several times a year, and brings from eight to twelve young at a birth: it has a strong affection for them; one that was seduced into a wire trap by placing its brood in it, was so intent on fostering them that it appeared quite regardless of its captivity. In Newfoundland these mice are very destructive to gardens; but seldom do much damage in Britain.

6. M. betulinus, the beech mouse, has a considerable resemblance to the wandering mouse, but is somewhat smaller. The upper parts of the body are tawny, with a black line along the back, the under parts whitish, or pale ash-color; the nose is sharp, with a red tip; the ears are small oval, plaited, brown, and bristly at the ends; the limbs are very slender, with long and

very separable toes; the tail is slender, and much longer than the body. This species inhabit the birch woods in the desert plains of Ischim and Baraba, and between the Oby and Jenisei. They live chiefly in the hollows of decayed trees. They run up trees readily, and fasten on their branches by the tail; and by their slender fingers can fasten even to a very smooth surface. They are very delicate, soon growing torpid in cold weather, and their voice is very weak.

7. M. caraco, has a naked tail, long, scaly, and somewhat blunt; the body is of a brown gray color, and the hind feet are very slightly webbed. They inhabit the east parts of Siberia, Chinese Tartary, and the north provinces of China; burrowing like rabbits near the banks of rivers. They swim remarkably well, and infest houses. The body and head are six inches long, and the tail four and a half.

8. M. cricetus acredula, the Siberian hamster, has large oblong oval furrowed ears: the upper parts of the body are of a yellowish and brown ash-color, the under parts hoary. The head and body measure four inches, and the tail near one. This species inhabit the district of Orenburg in Siberia, near the Yaik or Ural. They live in burrows, which they quit only in the night for food. The Cossacks say they migrate out of the deserts in vast multitudes; but Dr. Pallas suspects this to be a mistake.

9. M. cricetus arenarius, the sand hamster, has the upper parts of the body hoary; the sides, belly, limbs, and tail, pure white. It inhabits the sandy deserts of Baraba, on the Irtish, in Siberia. The head is large, with a longish snout and sharp nose, having very long whiskers, very large pouches, and great oval brownish ears; the body is short and thick, about four inches long, and the tail rather more than one; the fur is very soft; the fore feet have only four toes each, the hind feet five, all the claws being white. These animals are very fierce and untameable; form burrows, are chiefly active at night, and feed mostly upon leguminous plants.

10. M. cricetus furunculus, the Baraba hamster, has the upper parts of the body of a cinereous yellow, with a black streak on the back; the under parts dirty white. It is about three inches long, and the tail near one. This species inhabits Dauria, Siberia in the desert of Baraba, towards the Ob, between the Onon and Argum, and in the Chinese empire near Lake Dalai; living chiefly on the seeds of the astragalus and atriplex; their manners are unknown.

11. M. cricetus Germanicus, the German hamster, is the most destructive of the whole rat tribe. The bodies of the males are about ten inches long, and the tail about three, but the females are scarcely more than half so large: the former weigh from twelve to sixteen ounces, the latter seldom from above four to six. The head is thick, with a blunt nose, and numerous whiskers, large full black eyes, and large rounded open ears; the head and back of a reddish-brown color, with red cheeks; the sides paler, with three white spots; the breast, upper part of the fore legs, and belly, are black; the feet large and white with four toes, and a claw on the fore feet, and five toes on each hind foot. Sometimes, though rarely, they are entirely white or yellowish, or white with black spots on the back; sometimes the snout is white, and the forehead ash-colored, or the lower jaw of a white color. This species inhabits Siberia, the south of Russia, Poland, Sclavonia, Hungary, Silesia, Bohemia, and Germany beyond the Rhine, especially in Thuringia. Each individual forms a subterraneous burrow, consisting of several chambers, with two holes leading from the surface; one of these is perpendicular, and the other, for their excrements, is oblique; the holes of the females have several perpendicular openings, and each young one is lodged in a separate chamber. These chambers are lined with straw or grass; the rest are larger, and filled with grain, beans, peas, linseed, vetches, and other seeds, each in a separate cell. The chambers of the elder animals are dug several feet deep, while those of the younger seldom exceed a foot under the surface. The hamster sleeps during winter; when in a torpid state, no respiration nor feeling can be perceived. The heart, however, beats fifteen times in a minute. The blood continues fluid, but the intestines are not irritable; even an electrical shock does not awake him; but in the open air he never becomes torpid. When dug up in his state of torpidity, the hamster is found with his head bent under his belly between the two fore legs. The eyes are shut; and, when the eye-lids are forced open, they instantly close again. The members are stiff, like those of a dead animal, and the whole body feels as cold as ice. When dissected during this state, he seems to feel very little; sometimes, indeed, he opens his mouth as if he wanted to respire; but his lethargy is too strong to admit of his awakening entirely. This has been ascribed to a certain degree of cold. But experience shows, that, to render the hamster torpid, he must also be excluded from all communication with the external air; for when he is shut up in a cage filled with earth and straw, and exposed in winter to a degree of cold sufficient to freeze the water, he never becomes torpid: but when the cage is sunk three or four feet under ground, and well secured against the access of the air, at the end of eight or ten days he is as torpid as if in his own burrow. If the cage is brought up to the surface, the hamster will awake in a few hours, and resume his torpid state when put below the earth. The experiment may be repeated as long as the frost continues. The hamster, in passing from a torpid to an active state, first loses the rigidity of his members, and then makes a profound respiration, but at long intervals. His legs begin to move, he opens his mouth, and utters disagreeable and rattling sounds. After some time, he opens his eyes, and endeavours to raise himself on his legs. But all these movements are still reeling and unsteady, like those of a man intoxicated. He, however, reiterates his efforts till he is able to stand on his legs, and gradually begins to walk, eat, and act in his usual manner. This passage from a torpid to an active state requires more or less time, according to the temperature of the air. When exposed to a cold air, he sometimes requires more than two hours to awake; but in a temperate air he will awake in less than one

The hamster is very mischievous, and so exceedingly fierce that he seems to have no other passion but rage. He attacks every other animal that comes in his way, without regarding the superior size and strength of his antagonist; and even allows himself to be beaten to pieces with a stick rather than yield. If he seizes a man's hand, he must be killed before he quits his hold. When the hamster perceives a dog at a distance, he begins with emptying his cheek pouches, if filled with grain, which are so capacious as to hold a quarter of a pint English. He then blows them up so prodigiously, that the size of the head and neck exceeds that of the body. He then raises himself on his hind legs, and in this attitude darts on his enemy. If he catches hold he never quits it but with life. But the dog generally seizes him behind, and strangles him. This ferocious temper leads him even to destroy his own species, not excepting the females. When two hamsters meet they fight, and the stronger always devours the weaker. A combat between a male and a female lasts longer than between two males. They begin by pursuing and biting each other; then each retires to take breath; a little after, they renew the combat, and continue to fly and fight till one of them falls. The hamsters copulate about the end of April; when the males enter the apartments of the females, where they remain only a few days. If two males meet in the same hole, a furious combat ensues, which terminates in the death of the weakest. The conqueror takes possession of the female; and both, though at every other period they kill each other, lay aside their natural ferocity during the few days their amours continue. They even mutually defend each other against aggressors; and, if a hole is opened about this time, the female defends her mate with the utmost fury. The females bring forth twice or thrice a year. Their litter is from six to eighteen. Their growth is very rapid. At the age of fifteen days they begin to dig the earth; and soon after, the mother banishes them from her habitation: so that at the age of about three weeks they are abandoned to their own management. The mother discovers little affection for her offspring; and, when her hole is opened, flies in the most dastardly manner, leaving her young ones to perish. Her only solicitude is to provide for her own defence, by digging deeper into the earth, which she performs with amazing quickness. The young would willingly follow her; but she is deaf to their cries, and even shuts the hole. The hamsters feed upon all kinds of herbs, roots, and grains, and eat the flesh of such animals as they can conquer. They are fond of liquorice, and feed much on its seeds. Their pace is very slow, and they do not climb; but they dig with vast quickness, and will gnaw through a piece of wood an inch and a half thick in a very short time. As they are not formed for long journeys, their magazines are first stocked with the provisions nearest their abode. When the harvest is reaped, they go to a greater distance in quest of provisions, and carry every article they can find to their granaries. To facilitate the transportation of their food, they have two pouches in the inside of each cheek. On the outside these pouches are membranous, smooth, and shining; and in the inside there are many glands, which secrete a certain fluid, to preserve the flexibility of the parts, and to enable them to resist any accidents, which may be occasioned by the roughness or sharpness of particular grains. Each of these receptacles is capable of containing an ounce and a half of grain, which, on his return to his lodgings, the animal empties, by pressing his two fore feet against his cheeks. A hamster, having his cheeks filled with provisions, is easily seized with the hand, without the risk of being bitten, as in this condition he has not the free motion of his jaws. But in a little time he empties his pouches, and stands upon his defence. The quantity of provisions found in the holes depends on the age and sex of the inhabitant. The old hamsters often amass 100 lbs. of grain. Their object in laying up provisions, is not to nourish them during winter, which they pass in sleep, and without eating; but to support them previous to their falling into that state, which resembles a profound sleep, and after they awake in spring. At the approach of winter the hamsters retire into their subterraneous abodes, the entrance to which they carefully shut up. Here they repose upon a bed of straw, and in this state are commonly dug up. They are preyed on by polecats, weasels, cats, dogs, foxes, and birds of prey; and are proscribed by man. In winter the peasants generally go a hamster-nesting, as they call it: the retreat is known by a small eminence of earth raised near the oblique passage above described. The peasants dig down till they discover the hoard, and are generally well paid for their trouble; as they often find two bushels of corn, besides the skins of the animals, which are valuable furs; and the hair sticks so fast to the skin that it cannot be plucked off without great difficulty. In some seasons the hamsters are so numerous, that they occasion a dearth of corn. In one year about 11,000 skins, in a second 54,000, and in a third 80,000, were brought to the town-house of Gotha, to receive a reward for their destruction. They are likewise destroyed by a paste, formed of honey and flour, boiled up with arsenic or powdered hellebore.

12. M. cricetus phæus, the rice hamster, or zarizyn rat of Pennant, has the upper parts of the body ash-color, with long dusky hairs along the back; the sides whitish; the circumference of the mouth, breast, belly, and extremities of the limbs, pure white. It is about three inches and a half long, and the tail scarcely one inch. This species inhabit about Zarizyn in the deserts of Siberia, and in the mountains of the north of Persia; where they do vast mischief in the rice fields. They are often caught in traps during winter, near stables and other out-houses, and never become torpid.

13. M. cricetus songarus, the songar hamster, has the upper parts of the body of a gray ash-color, marked with a black line along the back; the sides of the head and body are varied with large white and dark brown spots; the feet and belly are white. It is about three inches long, with a very short, thick, blunt, and hairy tail, little more than one-third of an inch long. They inhabit

the desert of Baraba, near the Irtish, in Siberia; where they dig chambers for provisions. They are not, however, so fierce as some other species, but may be tamed when caught young, and grow very familiar.

14. M. cyanus, the blue mouse, resembles the field mouse, except in color; the upper parts are blue, and the under whitish, the ears are rounded. They inhabit Chili, form large burrows divided into chambers, in which they collect great stores of bulbous roots; for which the Chinese search for them.

15. M. decumanus, the brown rat, has a long, naked, scaly tail; the upper parts of the body are of a light brown, mixed with tawny and ash-color, the lower parts dirty white. The head and body measure about nine inches; and the length of the tail, which consists of 200 rings, is seven and a half. The whiskers are larger than the head; and the eyes are large, black, and prominent. The fore feet have four toes, with a small claw or thumb. They inhabit India and Persia, but were not known in Europe till the eighteenth century. They dwell in burrows on the banks of rivers; and frequent towns, aqueducts, drains, necessaries, stables, barns, gardens, fields, and houses. They swim and dive with great dexterity; feed on vegetables, grain, fruits, and poultry; and are hunted eagerly by cats, dogs, and ferrets. They lay up stores of acorns, beech-mast, and other provisions, in their holes; in which the males remain during winter, except in fine weather, without hybernating; but the females and their young live mostly in barns and out-houses in that season. They often emigrate in great companies. The female produces three times in the year, from twelve to nineteen at a litter. Their bite is not only severe but dangerous, the wound being immediately attended with great swelling, and slow in healing. These animals are so bold as to turn upon those who pursue them, and fasten on the stick or hand of such as offer to strike them. This species is supposed to be the mus Caspicus of Ælian, which he says was nearly as large as the ichneumon, and made periodical visits in vast multitudes to the countries which border on the Caspian, swimming boldly over the rivers, holding by each others tails.

16. M. lagurus, the rambling mouse, has hardly any tail; the ears are shorter than the fur; the fore feet have each three toes, and the rudiments of a fourth; the upper parts of the body are ash-colored mixed with dusky, and have a black line along the back. The head is long, with rough and swelling lips; the limbs are short and slender; and the length of the body and head is between three and four inches. This species inhabits the deserts near the rivers Ural, Irtish, and Jenisei. Each individual forms a round nest of dried grass in a burrow, having an oblique and a perpendicular entrance. They feed chiefly on the dwarf iris; but eat all kinds of grain, and devour other species of this genus, as well as one another. They sleep very much, in a rolled up form, and are very slow in their motions, like the marmot; but do not become torpid in winter. The males are very salacious, and fight for the females; the conqueror generally devours the vanquished. The females smell of musk, when in season, produce several times in the year, and bring five or six young ones at a birth. They migrate in great troops; whence the name given them by the Tartars, which signifies rambling.

17. M. laniger, the woolly mouse, with woolly fur of an ash-color, inhabits Peru and the north parts of Chili. They burrow in the earth, are very docile and cleanly, and easily tamed; they live on bulbous roots, especially onions; the females breed twice a year, and bring five or six young ones at each litter. They are about six inches long, with a short nose, and small sharp-pointed ears; the fur is very long and exceedingly fine, almost like the threads of a spider's web, and was formerly employed as the very finest species of wool by the Peruvians.

18. M. lemmus, the lemming, has a very short tail: the head is pointed, having very long whiskers, six of the hairs on each side being longer and stronger than the rest, the mouth is small, having two very long foreteeth in each jaw, and the upper lip is divided; the eyes are small and black; the ears are shorter than the fur, rounded, and reclined backwards; the fore legs are very short, having four slender hairy toes on each, and a long sharp claw like a cock's spur in place of the fifth; the hind feet have five toes; the skin is very thin, and the upper parts of the body are black and tawny, disposed in irregular blotches; the belly is white tinged with yellow. The length from nose to tail is about five inches; of the tail half an inch. These singular animals inhabit the mountains of Norway and Lapland. They feed on grass, the catkins of the dwarf birch, the lichen rangiferinus, and other vegetables; in summer they form shallow burrows under the turf, and in winter they make similar long passages under the snow in quest of food; for as they do not lay up magazines, and do not hybernate, they are obliged to search for provisions in the rigorous winter of these northern climes. When they foresee, by some wonderful instinct, the approach of a very severe winter, they leave their northern haunts in autumn, and emigrate in immense multitudes into the lower parts of Norway and Sweden, keeping a straight line in spite of every obstacle, moving mostly in the night time, and making prodigious havock of every vegetable they are able to reach. In this journey, which takes place at uncertain intervals, though generally once every ten years, they are destroyed by eagles, hawks, foxes, and other animals of prey, and numbers are drowned in passing rivers or lakes, which never interrupt their course, even proceeding on into the sea: from all these concurring causes very few live to return to their native mountains, and thus a check is put to their ravages, as it takes years to repair their numbers sufficiently for another migration. They are bold and fierce, so as even to attack men and beasts, if they meet them in their course; and bite so hard as to allow themselves to be carried a considerable way, hanging by their teeth to a stick, before they will quit their hold.

They never come into a house, or meddle with any thing that we eat; if they chance to come to a house in their way, there they stop

till they die; but, if they come to a stack of hay or corn, they eat their way through.

When they march over a meadow, they do it great damage, by eating the roots of the grass; but, if they encamp there, they wholly destroy the produce; the land looks like a place where there had been a fire, and the whole surface looks as if strewed with ashes.

The Laplanders are always glad to see these creatures on their march; for it always foretels plenty of more valuable creatures among them: the same cold that sends these out, sending also a number of fowl, squirrels, foxes, and other animals the same way. Wormius has written a complete treatise on this animal, calling it Mus Norwegius; this is reprinted at large in his museum.

The female breeds several times in the year, producing five or six young at a birth: sometimes they bring forth during their migration, when they carry their young in their mouths or on their backs.

19. M. lemmus Sibiricus, the Siberian lemming, is a variety of a smaller size, and more uniform tawny color, than the above. It inhabits the north parts of the Uralian Mountains, and on the Oby. It differs greatly in manners from the former: for it lays up in its burrows large stores of provisions to serve during winter; whence it is probable that it does not migrate.

20. M. messorius, the harvest mouse, or less long tailed field mouse, is a very small species, and inhabits Hampshire, where it is very numerous, particularly in harvest. They form their nests above the ground, between the straws of the standing corn, and sometimes in thistles; they are of a round shape, and composed of the blades of corn. They bring about eight young ones at a time. They never enter houses; but are often carried, in the sheaves of corn, into ricks: and 100 of them have often been found in a single rick on pulling it down to be housed. Those that are not thus carried away in the sheaves, shelter themselves in winter under ground, and burrow deep, forming a warm bed of dead grass. They are the smallest of the British quadrupeds; the length from nose to tail is only two inches and a half; the tail two inches, and the weight one-sixth of an ounce. They are more slender than the other long-tailed field mice; and their back of a fuller red, inclining to the color of a dormouse.

21. M. minutus, the minute-mouse, has the upper parts of the body of a deep tawny or ferruginous color, and the under parts whitish. It is about half the size of the common mouse, the tail being scarcely two inches long; the female is smaller than the male, and less elegant in her colors; the nose is somewhat sharp; the face is dusky, with some whiteness at the corners of the mouth; the ears are small, and almost hid in the fur; the feet are gray. This species inhabits Russia; where they are found in corn fields, barns, and birch woods, wandering about without any fixed places for nests, and much greater numbers of males are found than of females.

22. M. musculus, the common mouse, has a very long, scaly, and almost naked tail; the fore feet have each four toes; the hind feet five, the fifth or thumb having no claw; the head and body measure three inches and a half in length; the upper parts are tawny, and the lower whitish or ash-colored. This little animal, which inhabits all parts of the world, lives almost entirely in houses, and follows mankind for the sake of their provisions. It feeds on grain, bread, cheese, butter, oil, and every kind of food used by mankind, and drinks little: it is of mild and gentle manners, exceedingly timid, and very quick in all its motions. The mouse never issues from his hole but in quest of food, and runs in again upon the least alarm. It goes not, like the rat, from house to house, unless forced, and is not nearly so destructive. It is also capable of being tamed to a certain degree, though not so perfectly as other animals. It has many enemies, from whom it can escape only by its agility and minuteness. Owls, birds of prey, cats, weasels, hedge-hogs, and even rats, make war upon the mice, so that they are destroyed by millions; yet the species still subsists by its amazing fecundity. They bring forth at all seasons, and several times in the year; the litter generally consists of five or six; and in less than fifteen days the young disperse, and are able to provide for themselves. Aristotle tells us, that having shut up a pregnant mouse in a vessel, with plenty of grain, he found in a short time after 120 mice, all sprung from the same mother. Several varieties of mice as to color are found, some altogether black, some yellowish, others spotted with white; some of a white color with ash-colored spots; but the most beautiful of all, and the least common, are entirely white, with red eyes. As all these agree in every other circumstance, it is unnecessary to describe them more particularly.

23. M. myocastor coypus, the webbed water rat, has a thick hairy tail of a moderate length, and the hind feet webbed. It inhabits Chili, where it frequents the water. It has a strong resemblance, both in color and shape, to the otter; but is allied to the murine tribe by the number and arrangement of its teeth.

24. M. myotalpa aspalax, the Daurian mole-rat, is of a dirty yellow ash color on the upper parts, and whitish ash on the lower: has a very short tail, and no external ears; the eyes are very small, and deep seated; the feet have each five toes, the claws of the fore feet being very long. This species inhabits Dauria, and Siberia beyond the Irtish, between the Alei and Tscharych rivers. They dig very long burrows in the black turfy soil or firm land, throwing up numerous hillocks, which extend over a considerable surface; working both with feet and nose, and sometimes with their teeth. They feed chiefly on the roots of bulbous plants. This species varies in size, those of Dauria being nearly nine inches long, while those farther east are scarcely six.

25. M. myotalpa Capensis, the Cape mole-rat, is of a dark brown color tinged yellowish, with the fore part of the face, orbits, and regions of the ears, white. It has a very short tail, and no external ears; and is about five inches and a half long. They inhabit the Cape of Good Hope, and infest gardens.

26. M. myotalpa maritima, the African mole rat, is of a pale brownish ash-color, mixed with yellowish on the upper parts, the sides and under parts paler; the tail is very short; and there are no external ears. They inhabit the sand hills adjacent to the sea at the Cape of Good Hope; measuring twelve or thirteen inches in length. They form burrows in the sand like those of rabbits; and dig with surprising celerity. They run slowly; but are very fierce, and bite severely. They feed chiefly on the roots of ixiæ, antho yzæ, gladioli, and irides; and are reckoned good eating.

27. M. myotalpa talpina, the Russian mole-rat, is of a dusky color; has a very short tail, scarcely appearing beyond the fur; and no external ears; the fore teeth are long, extended from the mouth, and wedge-shaped; the eyes are very small, and hid in the fur; the feet have five toes; the fore feet are very strong, flat, and formed for digging. It is about four inches long, and in the general form resembles the water rat. As to color, the head, back, and sides are dusky, and the belly and limbs white. This species inhabits the plains of Russia and Western Siberia, scarcely extending beyond the Irtish, and never beyond the Oby. They are fond of a turfy soil, avoiding sandy or muddy places; and dig holes like the hamster, which they line with soft grass, and fill with bulbous roots, throwing up hillocks of earth all along the tracks; each individual has its separate burrow; works only in the night, and seldom comes out except in the season of love. Their sight is very weak in the day-time. They feed chiefly on the roots of tulips, tuberose lathyrus, and tuberose phlomis. They procreate about the beginning of April, when they smell strongly of musk; and the females produce three or four young at a litter.

28. M. myotalpa typhlus, the blind mole rat, is of a reddish ash-color; and has no tail, external ears, or apparent eyes; the feet have each five toes; and the fore teeth are broad. The body and head measure between seven and eight inches; the mouth is continually gaping, with short wrinkled foreteeth above, and very long ones below, likewise wrinkled, none of them being hid by the lips; the body is covered with short, soft, and close set fur, of a dusky color at the bottom, with the ends of a rusty brown mixed with ash-color; the legs are very short, having five toes on each foot, armed with short claws, and slightly connected by a short membrane at their bases. This species inhabits the south parts of Russia, from Poland to the Volga. Each individual forms burrows under the turfy soil of very considerable extent, with many lateral passages, and throws out the earth at different distances, in large hillocks sometimes two yards in circumference, and proportionally high. It works with its snout, feet, rump, and teeth, and digs with great celerity; when frightened, it digs directly downwards. When irritated, they snort, gnash their teeth, raise their head in a menacing posture, and bite with great severity. They feed on roots, especially those of the bulbous chærophyllum. They are entirely blind, though they have the rudiments of very small eyes, which are covered over with a continuation of the skin; but they possess the senses of touching and hearing in a very eminent degree. They breed in spring and summer; and the female, which has two teats, brings from two to four young ones at a birth.

29. M. œconomus, the economic mouse, in its general form resembles the arvalis, but the body is rather naked and the belly larger. The ears are longer and hid in the fur; the color is tawny, and the fore feet have each three toes with the rudiments of a fourth. The head and body measures four inches and a quarter; the tail somewhat more than an inch. This species inhabits Siberia from the Irtish eastwards, in Kamtschatka, and under the arctic circles. They are called by Dr. Pallas mures œconomi, from their curious way of living. They dwell mostly in damp soils, forming burrows, with many chambers, and numerous entrances, immediately under the turf. In these they lay up magazines of various vegetable food, chiefly bulbous roots; which they spread out in sunny days to dry, and never touch them but in winter, living all summer on berries and other vegetables. The Kamtschatkans hold these animals in great regard, and never destroy their hoards; they take away only part, and leave some caviare or other substance to support them in its stead. This species sometimes emigrate in vast multitudes, keeping a straight course, like the lemmus, even over rivers; and are much infested on their march by birds, fish, wild hogs, foxes, and other wild animals. They begin their march from about the river Pengin in spring, and about the middle of July reach Ochotska and Judoma, at a vast distance; and return in October. The Kamtschatkans are alarmed at their migrations, which, they say, portend rainy weather and a bad chace; and, when they find them lying weak and spent with fatigue after crossing a river, give them every assistance in their power. The Tschutski are not so much attached to them, but use both their winter stores and their carcases as food.

30. M. pumilio, the dwarf mouse, is of a brownish ash color, with the fore head and nape of the neck black, and having four black lines along the back meeting at the tail. It is scarcely two inches long, the tail is about two-thirds of the length of the body, and the whole animal, even when steeped many months in spirits, hardly weighs four scruples. The body is somewhat flattened; the regions of the eyes, the ears, and the nose, are of a paler color than the rest of the body; all the feet have five toes, the thumb or inner toe of the fore feet being very small, but distinctly furnished with a claw; the legs and feet are strongly made; the tail is almost naked, and of a pale ash color. This species, which was first described by Dr. Sparrman, inhabits the forests of Sitsicamma near Ilangen River, 200 hours' journey from the Cape of Good Hope.

31. M. rattus, the black or common rat, has an almost naked scaly tail, which is very small, has 250 distinct rings, and is eight inches long. The head and body measure seven inches in length; the upper parts are deep black-gray, and the under parts ash colored. There are four toes, and a small claw, on each fore foot, and five on the hind feet. This species inhabits India, Per-

sia, and Europe, except its most northern parts; hence it has been carried to Africa and America; and is common in Otaheite, but less so in the other islands of the South Sea. Of late, it has greatly diminished in Europe, and is even in many places extirpated, by the brown species, which destroy the black rats; though little is gained by the exchange, the brown having the same dispositions, with greater strength and abilities for doing mischief. The rat is the most pernicious of any of our smaller quadrupeds. Meat, corn, paper, cloaths, furniture, and every convenience of life, are a prey to these destructive creatures. They make equal havock among poultry, rabbits, and young game; and have even been known to gnaw the extremities of infants when asleep. They reside much in houses, barns, and granaries; and have fore teeth of such strength as to force their way through the hardest wood and oldest mortar. They make lodges for their residence, and nests for their young, near chimneys; and increase the warmth by forming magazines of wool, bits of cloth, hay, or straw. They lodge also in ceilings, and in the void spaces between the wall and the wainscotting. The female has ten teats, and brings forth several times a year, but always in summer. The litter generally is five or six; and in spite of poison, traps, and cats, they multiply in such a degree as often to do a great deal of damage. In houses where grain is kept, they often increase so prodigiously that the possessors are sometimes obliged to remove, unless the rats destroy each other. When a famine happens, by too many being crowded into one place, the strong kill the weak, open their heads, and first eat the brain and then the rest of the body. Next the war is renewed, and continues in the same manner till most of them are destroyed; which is the reason why these animals, after being extremely troublesome for some time, disappear all of a sudden, and do not return for a long time. When their young begin to issue from the hole, the mother watches, defends, and even fights with the cats, to save them. A large rat is more mischievous than a young cat, and nearly as strong; the rat uses his fore teeth; the cat makes most use of her claws; so that the latter requires both to be vigorous, and accustomed to fight, to destroy her adversary. The weasel, though smaller, is a much more dangerous and formidable enemy, because he can follow the rat into its retreat. Their strength being nearly equal, the combat often continues long, but the method of using their arms is very different. The rat wounds only by reiterated strokes with his fore teeth, which are better formed for gnawing than biting; and being situated at the extremity of the lever, or jaw, they have not much force. But the weazel bites cruelly with the whole jaw; and, instead of letting go its hold, sucks the blood from the wounded part, so that the rat is always killed. The rat was first introduced into America by the Europeans in 1544, and is now the pest of that continent

32. M. rutilus, the red mouse, has a short tail; the ears are longer than the fur, which is tawny red on the back, light gray and yellow on the sides, and whitish on the belly. The head and body measure about four inches, and the tail one. This species inhabits Siberia, from the Oby to Kamtschatka, and within the Arctic circle. They live in holes and hollows of trees; feeding on grain and sometimes on animals of the same genus. They come often into houses and barns, eating almost of every thing, but are particularly fond of flesh. They are very lively, and run about on the snow the whole winter.

33. M. saxatilis, the rock mouse, is about four inches long, and weighs nearly nine drachms; the tail is hairy, an inch and a half long, of a brown color above, and white beneath; the head is oblong, with a longish nose, and oval downy ears, brown at the edges; the limbs are strong; and the tail is thinly covered with hair; the upper parts of the body are brown, slightly mixed with yellowish or gray; the sides are rather inclined to gray; the belly is of a light ash or whitish; the feet and legs are blackish; the snout is dusky; and surrounded with a slender white ring. This species inhabit the eastern parts of Siberia beyond lake Baikal, and the deserts of Mongul Tartary. They burrow in the fissures of rocks, forming a winding oblique passage, which afterwards branches out into several others pointing downwards, and ending in a chamber in which is a bed of soft herbs. They feed chiefly on the seeds of the astragalus.

34. M. socialis, the social mouse, with a short slender tail, and naked, rounded, and very short ears; the fore feet have each three toes and the rudiments of a fourth; the upper parts of the body are light gray; the sides, shoulders, and belly white. The head and body are above three inches long, the tail half an inch. They inhabit the sandy deserts between the Volga and Ural, near the Caspian Sea, and in the mountains of Hyrcania. They live in families, consisting of a male and a female with their young ones; and of these families vast numbers live together, the whole country being covered with hillocks of earth thrown out of their burrows. They feed mostly on tulip roots; and are preyed on by weasels, polecats, crows, and otters. They swarm chiefly in spring, rarely in autumn, when they migrate, or take shelter among the bushes.

35. M. sylvaticus, the long-tailed field mouse, is larger than the common mouse, measuring from the end of the nose to the setting on of the tail four inches and a half; the tail four inches; the upper parts of the body are of a yellowish-brown; the breast is yellow, and the belly white; the tail is covered with short hair. The fore feet have four toes each; the hind feet five. These animals are found in fields, gardens, and shrubberies. In some place they are called bean mice, from the havock they make among beans when first sown. They feed also on nuts, acorns, and grain, of which they amass quantities, not proportioned to their wants, but to the capacity of the place where it is deposited, insomuch that a single animal will collect more than a bushel. Thus they provide for other animals as well as themselves: the hog comes in for a share; and the great damage done to the fields by these creatures, in rooting up the ground, is chiefly owing to their search after the concealed hoards of the field mice. M. Buffon says, he has often seen great damage done to the plantations by them. They carry off the new sown acorns; by

following the furrow of the plough, they dig up one after another, not leaving a single seed. This happens chiefly in those seasons when the acorns are scarce: not finding a sufficient quantity in the woods, they come in quest of them to the cultivated fields, and often carry off such quantities that they corrupt in their magazines. They do more mischief in a nursery of trees than all the other animals put together. The only way to prevent this damage is to lay traps at ten paces asunder, through the extent of the sown field. No other apparatus is necessary than a roasted walnut placed under a flat stone, supported by a stick. The animals come to eat the walnut, which they prefer to acorns; and, as it is fixed to the stick, whenever they touch it the stone falls down and crushes them to death. The same expedient M. Buffon made use of with success against the short-tailed field mouse, which also destroys acorns. In this way upwards of 100 were taken each day, from a piece of ground consisting only of about forty French arpents. From the 15th of November to the 8th of December above 2000 were killed in this manner. Their numbers gradually diminished till the frost became severe, which is the time they retire into their holes to feed on their provisions. In autumn they are most numerous: if provisions fail in winter, they devour one another. The long-tailed mice eat also the short-tailed species, and thrushes, blackbirds, &c., which they find entangled in snares. M. Buffon once kept a dozen of these mice in a cage, and furnished them with food every morning at eight o'clock. One day they were neglected for about a quarter of an hour, when one of their number was eaten up by the rest; next day another suffered the same fate, and in a few days only one remained; all the others had been killed, and partly devoured, and even the survivor had his feet and tail mutilated. They are very prolific, producing more than once a year, and bringing nine or ten at a birth. They generally make the nest for their young very near the surface, and often in a thick tuft of grass. In winter they frequent barns, stables, and out-houses.

36. M. torquatus, the collared or ringed mouse, has a very short tail, with a tuft of hard bristles at the end, which is blunt; the ears are shorter than the fur; the feet have each five toes; the fur is ferruginous, varied with gray, yellow, and dusky, having a whitish collar round the neck, and a dark line along the back. The head and body are above three inches long, the tail scarcely one inch. They inhabit the north parts of the Uralian Mountains, and the marshes near the Frozen Ocean; feeding chiefly on the lichen languiferus, lichen nivalis, and polygonum viviparum; these plants they store up in burrows, having numerous passages, dug under the turfy soil. This species is migratory, and resembles the lemmus in its manners.

37. M. vagus, the wandering mouse, is between two and three inches long; the upper parts of the body are a pale ash color, waved with black, and having a black line along the middle of the back; the ears are large, oval, naked, and plaited. The legs are very slender, and the feet whitish, having four toes with a conical excrescence before, and five behind, all armed with long claws; the tail is longer than the body, very slender, prehensile at the end, of an ash-color above, and whitish below; the head is oblong, with a blunt nose, reddish at the tip, having yellow fore-teeth, and only two grinders on each side in the upper jaw. The female has eight teats. This species inhabit the deserts of Tartary and Siberia, as high as the Ural, Irtish, Oby, and Jenisei; are frequent in birch woods, and live in fissures of rocks, under stones, and in hollows of trees; feeding chiefly on seeds, and on small animals of the same genus. They wander about in great flocks, migrating in the night; hybernate in the winter, and are of a very chilly nature, so as to become torpid and fall asleep, in a round form, in cold nights.

38. M. Virginianus, the Virginian mouse, has a very hairy long tail, very thick at the base, but tapering gradually. The nose is pointed and black, ears pointed, limbs very slender, the color universally white.

MUSA (Antonius), an eminent Greek physician, who cured the emperor Augustus of a dangerous illness by bathing. He was the first who prescribed the use of the cold bath. The Romans erected a statue to his honor. He wrote two treatises, which are both extant; 1. De Herbâ Botanicâ; and, 2. De Tuendâ Valetudine.

MUSA, in botany, the plantain tree, a genus of the monœcia order and polyandria class of plants; natural order eighth, scitamineæ. MALE CAL. a spatha, or sheath: COR. dipetalous; the one petal erect and quinquedentate; the other nectariferous, concave, and shorter; there are six filaments, five of which are perfect; one style; the germ inferior and abortive. *Female hermaphrodite* has the CAL. COR. filaments, and pistil of the male hermaphrodite, with only one filament perfect: the BERRY is oblong, and three-angled below. The most remarkable species are:

M. paradisaica, cultivated in all the islands of the West Indies, where the fruit serves the Indians for bread; and some of the white people also prefer it to most other things, especially to the yams and cassada bread. The plant rises with a soft stalk fifteen or twenty feet high; the lower part of the stalk is often as large as a man's thigh, diminishing gradually to the top, where the leaves come out on every side. These are often eight feet long, and from two to three broad, with a strong fleshy midrib and a great number of transverse veins running from the midrib to the borders. The leaves are thin and tender, so that where they are exposed to the open air they are generally torn by the wind; for, as they are large, the wind has great power against them. These leaves come out from the centre of the stalk, and are rolled up at their first appearance; but, when they are advanced above the stalk, they expand and turn backward. As these leaves come up rolled in this manner, their advance upwards is so quick that their growth may almost be discovered by the naked eye; and if a fine line is drawn across, level with the top of the leaf, in an hour the leaf will be nearly an inch above it. When the plant is grown to its full height, the spikes of flowers appear in the centre, which is often nearly four

feet long, and nods on one side. The flowers come out in bunches; those in the lower part of the spike being the largest; the others diminish in their size upward. Each of these bunches is covered with a sheath of a fine purple color, which drops off when the flowers open. The upper part of the spike is made up of male flowers, which are not succeeded by fruit, but fall off with their covers. The fruit, or plantain, is about a foot long, and an inch and a half or two inches diameter. It is at first green; but when ripe pale yellow. The skin is tough, and within is a soft pulp of a luscious sweet flavor. The spikes of the fruit are often so large as to weigh upwards of forty pounds. The fruit of this sort is generally cut before it is ripe. The green skin is pulled off, and the heart is roasted in a clear fire for a few minutes, and frequently turned; it is then scraped, and served up as bread. Boiled plantains are not so palatable. This tree is cultivated on a very extensive scale in Jamaica. Plantains also fatten horses, cattle, swine, dogs, fowls, and other domestic animals. The leaves, being smooth and soft, are employed as dressings after blisters. The water from the soft trunk is astringent, and employed by some to check diarrhœas. Every other part of the tree is useful in different parts of rural economy. The leaves are used for napkins and table-cloths, and are food for hogs.

Musa Sapientum, the banana-tree. This species differs from the preceding in having its stalks marked with dark purple stripes and spots. The fruit is shorter, straighter, and rounder; the pulp is softer, and of a more luscious taste. It is never eaten green; but when ripe it is very agreeable, either eaten raw, or fried in slices as fritters; and is relished by all ranks of people in the West Indies. Both these plants were carried to the West Indies from the Canary Islands; whither, it is believed, they had been brought from Guinea, where they grow naturally. They are also cultivated in Egypt, and in most other hot countries, where they grow to perfection in about ten months from their first planting to the ripening of their fruit. When their stalks are cut down, several suckers come up from the root, which, in six or eight months, produce fruit; so that, by cutting down the stalks at different times, there is a constant succession of fruit all the year. In Europe some of these plants are raised by gentlemen, who have hot-houses capacious enough for their reception, in many of which they have ripened their fruit very well; but, as they grow very tall, and their leaves are large, they require more room in the stove than most people are willing to allow them. They are propagated by suckers, which come from the roots of those plants which have fruited; and many times the younger plants, when stinted in growth, also put out suckers. The fruit of this tree is four or five inches long, of the size and shape of a middling cucumber, and of a high, grateful flavor; the leaves are two yards long, and a foot broad in the middle; they join to the top of the body of the tree, and often contain in their cavities a great quantity of water, which runs out, upon a small incision being made into the tree, at the junction of the leaves. Bananas grow in great bunches, that weigh twelve pounds and upwards. The body of the tree is so porous as not to merit the name of wood; the tree is only perennial by its roots, and dies down to the ground every autumn. 'When the natives of the West Indies,' says Labat, 'undertake a voyage, they make provision of a paste of banana, which, in case of need, serves them for nourishment and drink; for this purpose they take ripe bananas, and, having squeezed them through a fine sieve, form the solid fruit into small loaves, which are dried in the sun or in hot ashes, after being previously wrapped up in the leaves of Indian flowering reed. When they would use this paste, they dissolve it in water, which is easily done; and the liquor, thereby rendered thick, has an agreeable acid taste, which makes it both refreshing and nourishing. The banana is greatly esteemed, and even venerated, by the natives of Madeira, who term it the forbidden fruit, and reckon it a crime almost inexpiable to cut it with a knife; because, after dissection, it exhibits, as they pretend, a similitude of our Saviour's crucifixion; and to cut the fruit open with a knife, is, in their apprehension, to wound his sacred image. Some authors suppose that the banana tree was that of the leaves of which our first parents made their aprons in Paradise.

MUSÆUM, a hill near the citadel of Athens, so called, according to Pausanias, from Museus, who used to retire thither to meditate and compose his religious hymns; at which place he was afterwards buried.

MUSÆUS, an ancient Greek poet, who was, according to Plato and Diodorus Siculus, an Athenian, the son of Orpheus, and chief of the Eleusinian mysteries instituted at Athens in honor of Ceres. According to others he was only the disciple of Orpheus; but, from the great resemblance between his talents and those of his master, he was called his son. Museus is one of the first poets who versified the oracles. He is placed in the Arundelian marbles, epoch 15, 1426, B. C., at which time his hymns are there said to have been received in the celebration of the Eleusinian mysteries. Laertius says that Museus not only composed a theogony, but formed a sphere for the use of his companions; yet, as this honor is generally given to Chiron, Sir Isaac Newton supposes that he enlarged it with the addition of several constellations after the conquest of the golden fleece. The sphere itself shows that it was delineated after the Argonautic expedition, which is described in the asterisms, together with several other more ancient histories of the Greeks, and without any thing later; for the Argo was the first long vessel which they had built. Hitherto they had used round ships of burden, and kept within sight of the shore; but now the princes of that country sailed rapidly through the deep, and guided their ships by the stars. Museus is celebrated by Virgil in the character of hierophant, or priest of Ceres, at the head of the most illustrious mortals who merited a place in Elysium. Here he is made the conductor of Æneas to the recess where he meets the shade of his father Anchises. The works which went under

his name, like those of Orpheus, were by many attributed to Onomacritus. Nothing remains of them now, nor were any of his writings extant in the time of Pausanias, except a hymn to Ceres, which he made for the Lycomides. And as his hymns were likewise set to music, and sung in the mysteries by Musæus himself in the character of priest, he thence, perhaps, acquired from after times the title of musician; the performance of sacred music being probably at first confined to the priesthood in these celebrations, as it had been before in Egypt, whence they originated. However, he is not enumerated among ancient musicians by Plutarch.

MUSAGÈTES, a title of Hercules.

MUSCA, the fly, in zoology, a genus of insects belonging to the order of diptera. The mouth is furnished with a fleshy proboscis, and two lateral lips; but it has no palpi. This genus is divided into two different sections: 1. Those with simple antennæ. 2. Those which are furnished with a lateral hair or feather. Those have downy bodies, though scarcely perceptibly so; and have either a lateral plume or feather on the antennæ, or a simple hair on the side of the antennæ. The pilosæ have a few hairs scattered upon their bodies, principally upon the thorax; they have either a lateral feather or a lateral hair. Under these divisions are comprehended about 400 different species, as enumerated in Gmelin's edition of the Systema Naturæ. See ENTOMOLOGY. Flies are lascivious troublesome insects, that put up with every kind of food. They multiply most in hot moist climates; and so great was formerly their numbers in Spain that there were fly-hunters commissioned to kill them. The vapor of sulphur, or arsenic, destroys them; and their numbers may be reduced by taking them in phials of honeyed water, or between boards done over with honey.' There are 129 species, principally distinguished by the pecularities in their feelers.

MUSCA, a name given to such persons among the Romans as officiously thrust themselves into the company of their superiors and those who despised them, by finding means of getting admittance to entertainments without invitation, and without a welcome: so that muscæ were the same as parasites, who were frequently by the Greeks termed Μυῖαι. See PARASITE.

MUS'CADEL, *adj.* } Fr. *muscat, muscadel,*
MUS'CADINE. } *muscadin;* Ital. *moscatello,* either from the fragrance resembling the nutmeg, *nux moschata,* or from *musca,* a fly; flies being fond of these grapes.—Johnson. A kind of sweet grape, sweet wine, and sweet pear.

He quafft off the *muscadèl,*
And threw the sops all in the sexton's face.
Shakspeare.

MUSCADINE, or MUSCADEL, a rich wine of the growth of Provence, Languedoc, Cividad, &c. The method of making muscadine at Frontignac is as follows:—they let the muscadine grapes grow half dry on the vine; as soon as they are gathered, they tread and press them immediately, and tun up the liquor, without letting it stand and work in the fat; the lee occasioning its goodness.

MUSCHENBROECK (Peter de), a distinguished natural philosopher and mathematician, born at Utrecht about 1700. He was first professor of these sciences in his native university, and afterwards invited to the chair at Leyden, where he died full of honors in 1761. He was a member of several academies; particularly that of Sciences at Paris. He wrote several works in Latin, all of which show the greatest penetration. He was also very consummate in the knowledge of law. His course of natural philosophy was translated into English in 2 vols. 8vo.

MUSCI, mosses, one of the seven families or classes into which all vegetables are divided by Linné in the Philosophia Botanica. The ancients took the moss of trees to be the effect of a disorder or discomposure of the texture on the bark; or at most a kind of little filaments arising from the bark: but the moderns find, by several observations, that mosses are all real and distinct plants, whose seed, being extremely small, is inclosed in little capsulæ; which bursting of themselves, the seed is carried off by the winds; till, falling into the inequalities of the bark of trees, it is there stopped, takes root, and feeds at the expense of the tree, as mouldiness does on bread, &c. What botanical writers strictly understand by the word moss is a class of plants appearing of an inferior rank to the common vegetables; the less perfect genera of which have been supposed to be wholly destitute of flowers or seeds, or any thing analogous to either, and to consist of simple, similar, and uniform parts; the genera a little above these have some diversity of parts, resembling those which serve other plants for fructification. The more perfect genera of the mosses not only consist of different parts, but have also their appropriated organs, containing a pulpy matter, which becomes dry, and assumes the form of a fine powder, composed of granules, each of which is either a seed or granule of farina, serving for the propagation of the species. The imperfect mosses are distinguished from the others by their appearance to the naked eye; they are either in form of a fine lanugo or down covering the surface of different bodies; or of slender filaments, or foliaceous bodies, floating about in the water; or are filaments of a tougher texture, hanging down from the branches of old trees; or little shrubs, or single horns, growing erect on the parched earth of mountains and heathy places; or as broad and foliaceous bodies, spreading themselves over the dry bark of trees or rocks, without any pedicle or other support. The perfect kinds of mosses are found in the shape of small but regular plants, divided into several branches, and clothed with leaves: these are of various forms and structures; some broad and thin, others slender as hairs; some pellucid, others opaque; some smooth, others hairy. From the alæ of these leaves in some kinds, and from the summit of the stalks in others, there arise heads of various figure and structure, but all unicapsular; some of these are naked, others covered with a calyptra or hood; some stand on long pedicles, and others are placed close to the stalks. These heads are called capsulæ, and contain their seeds or farina, and their pedicles setæ, in the mnia, hypna, brya, and polytricha,

&c. These capsules in some are covered with a calyptra; in others they are naked.

This tribe of plants, as well as the mushrooms, ferns, and sea-weeds, are still imperfectly known. Dillenius, professor of botany at Oxford, was the first who attempted an arrangement of them. In his Catalogus Plantarum circa Gissam, published at Frankfort in 1719, and afterwards in his Historia Muscorum, published at Oxford 1741, he divides the mosses into sixteen genera. This arrangement, however, includes the lichens, some of the fuci, and other plants which belong to very different families. The work, however, is valuable, in having introduced the knowledge of upwards of 200 plants, which were unknown before Dillenius: it is also of all his works the best executed, both for the descriptions and figures, and may serve as a model to such authors as intend to publish in detail the history of any particular family of plants. Micheli, in his Nova Plantarum Genera, published at Florence in folio, in 1629, divides the mosses into two sections, from the figure and situation of their flowers. These sections comprehend together sixteen genera, amongst which are improperly arranged several of the lichens and other sea-weeds. The discovery of the seeds of the mosses, though made by Dillenius in 1719, is claimed by Linné, who did not begin to write till 1735. In Ray's method the mosses formed the third class; in Tournefort's they constitute a single genus, by the name of muscus, in the first section of the seventeenth class, which comprehends the mosses, mushrooms, and some of the algæ or sea-weed, and is distinguished by the name of aspermæ, or plants without seed; the seeds of the mosses not having been detected by Tournefort. In the Linnæan they constitute the second order of the class cryptogamia, which contain all those plants in which the parts of the flower and fruit are either wanting, or not conspicuous. The characteristics are, 1. Antheræ or tops without filaments or threads. 2. The male flower, constituted by the presence of the tops, placed apart from the female, either on the same or distinct roots. 3. The female flowers distinct and without any pistillum. 4. The seeds devoid of both lobes, or cotyledones, and proper coverings; so that they exhibit the naked embryo. This order is subdivided into eleven genera, from the presence or absence of the calyx, which on these plants is a veil or cover like a monk's cowl, that is placed over the male organs or tops of the stamina, and is denominated calyptra, from the sexes of the plants, which bear male and female flowers, sometimes on the same, sometimes on distinct roots; and from the manner of growth of the female flowers, which are sometimes produced singly, sometimes in bunches or cones. These distinctions are mostly borrowed from Dillenius, whose merit in developing this part of the vegetable kingdom Linné acknowledges. The manner of seeding of mosses in general may be more clearly understood, from the description of that genus of them which has been traced through all its stages, and to which most of the others, though every genus has its distinct fructification in some respects, bear a very great general analogy. This genus is the hypnum. The species of this are very numerous and common; but that particular one which was the subject of these observations is the short branched silky kind, common on old walls; and called by that author in his history hypnum vulgare, sericum, recurvum, capsulis erectis cuspidatis. The head of this moss appears to the naked eye a small, smooth, brownish-yellow, oblong body, about a ninth of an inch long; this is covered at its upper end with a membranaceous calyptra or hood, in shape resembling an extinguisher, or a funnel inverted. When this calyptra is taken off, and the head viewed with a microscope, the surface of it is seen to be ridged with longitudinal striæ. The basis of the head is of a deep orange color, and more opaque than the rest; and the top is bounded by an orange colored ring, swelling out something beyond the surface of the contiguous parts of the head. Good glasses show that in this head there are not wanting the parts essential to the fructification of what are usually called the more perfect plants. This ring is truly a monophyllous undulated calyx, within which arise sixteen pyramidal fimbriated stamina; these are of a pale greenish color, and are loaded with a whitish oval farina. The stamina all bend towards each other from their bases, and almost meet in a point at the top. This is their appearance when the head is nearly ripe; and immediately under the arch formed by these stamina is a cylindric hollow pistillum, through which the farina makes its way, and is dispersed among the seeds in the head; the fruit is a large capsule, filling every part of the membrane, which shows itself on the outside of the head, and in most places is contiguous to it; this capsule is filled with perfect and very beautiful seeds; they are round, transparent when unripe, but afterwards opaque, and of a very beautiful green, which color they retain even when dried. When this head is first produced from the plant, the stamina are very slender, and stand erect; the head is scarce any thicker than the stalk, and the calyptra covers it all over to shield the tender substance of the farina from external injuries. As the farina afterwards swells in the stamina, the seeds in the head increase also in bulk, and by their increase the head is more extended in thickness; and the stamina are by these means separated farther and farther from each other at their bases, but bend inwards toward their points, so as to form a kind of arched covering over the stigma of the pistillum which is single; and from hence the farina falls as it ripens into the head, and impregnates the seeds. See Botany.

Musci is likewise the name of the fifty-sixth order in Linnæus's Fragments of a Natural Method. See Botany.

MUSCICAPA, the fly-catcher, a genus of birds belonging to the order of passeres. The bill is flatted at the base, almost triangular, notched at the upper mandible, and beset with bristles; the toes generally divided as far as their origin. The species are very numerous. Dr. Gmelin enumerates ninety-two, Latham ninety-seven. Of these we shall only describe seven, viz.—

1. M. carolinensis, or caribonensis, the cat-bird, is somewhat bigger than a lark: length eight inches; bill black; the upper parts of the body and wings of a deep brown; the under ash-colored: the crown of the head is black; the tail blackish; the legs are brown. This species is found in Virginia in the summer season; where they frequent shrubs rather than tall trees, and feed on insects: their cry resembles that of a cat, whence the English name given by Catesby.

2. M. crinita, the crested fly-catcher, is about the size of a lark; the head is crested, and of a dull green; the hind part of the neck and back are of the same color; the under parts from the chin to the breast of an ash-color, and thence to the vent yellow; the legs are black. These inhabit Carolina and Virginia in summer; build there, and depart in autumn.

3. M. flabellifera, the fan-tailed fly-catcher, is in length six inches and a half; the head is black, which color descends on the back part lower than the nape, whence it passes forward in a narrow collar to the throat; the chin, throat, and sides of the neck, except where this collar passes, are white; and over the eye is a white streak like an eye-brow: the upper parts of the body are olive-brown; the under parts yellowish rust, growing whitish towards the vent; the tail is longer than the body; the two middle feathers black; the others are white; the legs are dusky. This species inhabit the south isle of New Zealand, where they are seen constantly hunting after insects. They fly always with their tails in shape of a fan. They are easily tamed, and will then sit on any person's shoulder, and pick off the flies. They have a chirping kind of note, and are called by the natives diggo-wagh-wagh.

4. M. grisola, the spotted fly-catcher, is about five inches three quarters long. The head is large, of a brownish hue, spotted obscurely with black; the back is of a mouse-color; the wings and tail are dusky; the breast and belly white; the throat and sides under the wings dashed with red; the legs and feet are short and black. It is a bird of passage; appears here in spring; breeds with us, and departs in September. It builds its nest against any part of a tree that will support it, often in the hollow caused by the decay of some large limb, hole in a wall, &c., also in old posts and beams of barns, and returns to the same place season after season. It lays four or five pale eggs marked with reddish. It feeds on insects, and collects them on the wing. When the young can fly, the old ones retire with them into thick woods, where they frolic among the top branches; dropping from the boughs often quite perpendicular on the flies that sport beneath, and rising again in the same direction. They will also stand on the top of some stake or post, whence they spring forth on their prey, returning still to the same stand for many times together. They feed also on cherries.

5. M. Pondiceriana, the Pondicherry or Coromandel fly-catcher, is rather bigger than a sparrow. The general color of the upper parts is a cinereous grey; the throat, breast, and belly, white; the legs black. It inhabits the coast of Coromandel, where, from the sweetness of its song, it is called the Indian nightingale.

6. M. rubra, the summer red bird of Catesby, is a most beautiful species, somewhat bigger than a sparrow: the bill is yellowish, the eyes are black, the legs dusky, the male is wholly of a scarlet color, except the tips of the quill-feathers, which are of a dusky red; the color of the female is brown tinged with yellow. They inhabit Carolina and Virginia in summer.

7. M. rubricollus, purple-throated fly-catcher, is about the size of a blackbird. The whole plumage is black, except the chin, throat, and fore part of the neck, on which is a large bed of beautiful crimson, inclining to purple; the legs are black. These birds inhabit Cayenne and other parts of South America, where they are found in flocks, and precede, in general, the toucans in their movements. They feed on fruits and insects, are lively and always in action. They for the most part frequent the woods, like the toucans; and where the first are found the others are seldom far off.

MUS'CLE, *n. s.* MUS'CULAR, *adj.* MUS'CULARITY, *n. s.* MUS'CULOUS, *adj.* } Fr. *muscle;* Ital. *musculo;* Lat. *musculus.* A fleshy fibre, or bundle of fibres, enclosed by a common membrane: muscular means relating to or performed by the muscles: musculous, abounding in muscles or muscular strength: muscularity, the state of having muscles, or being strong in the muscles.

The uvea has a *musculous* power, and can dilate and contract that round hole, called the pupil of the eye, for the better moderating the transmission of light. *More.*

The guts of a sturgeon, taken out and cut to pieces, will still move, which may depend upon their great thickness and *muscularity.* *Grew.*

By the *muscular* motion and perpetual flux of the liquids, a great part of the liquids are thrown out of the body. *Arbuthnot.*

The instruments of motion are the *muscles,* the fibres whereof, contracting themselves, move the several parts of the body. *Locke.*

With eye askance
I view the *muscular* proportioned limb
Transformed to a lean shank. *Cowper.*

MUS'CLE, *n. s.* Fr. *mousle;* Lat. *musculus.* A bivalve shell-fish.

Of shell-fish, there are wrinklers, limpets, cockles, and *muscles.* *Carew's Survey of Cornwall.*

It is the observation of Aristotle, that oysters and *muscles* grow fuller in the waxing of the moon. *Hakewill.*

Two pair of small *muscle* shells were found in a limestone quarry. *Woodward on Fossils.*

MUSCLE, in zoology. See MYTILUS.

MUSCLE, in anatomy. See ANATOMY. The motion of the muscles of animals has been thought a matter of such importance that an annual lecture upon it was founded by Dr. Croone, one of the original members of the Royal Society of London. The investigation of the subject has accordingly exercised the pens of many very learned and ingenious men; notwithstanding which it still remains involved in much obscurity. Dr. Blane of the Royal Society considers as muscles, not only those large masses of flesh which compose so great a part of the bulk of the body, but likewise all the minuter organs subservient to circulation, nutrition, and secre-

tion; since, not only the heart itself, but the whole vascular system and the intestines, owe their action to certain powers of irritability and contractility peculiar to muscular fibres. The first and most obvious considerations with respect to the muscles is the regular organisation of their fibres in a parallel direction. In this they are distinguished from every other matter of a fibrous structure, whether vegetable or mineral, by a certain degree of moisture, tenacity, and elasticity, entirely peculiar to themselves. The fibres of the muscles visible to the naked eye are composed of others discoverable by glasses, and these of others of fibres still smaller; neither has any person been able to discover the ultimately fine fibres of a muscle, which are not composed of others. Some have indeed imagined that they have been able to do this, but their observations have been found fallacious; and it is now universally allowed that the fibres are divisible beyond what the best assisted sight can trace, and are to all appearance uniform. In this regular and fibrous organisation they resemble the crystals of salts, many of which are found composed of fibres more and more fine, and which, like those of the muscles, can never be ultimately traced. It is evident that the cause of muscular motion cannot be referred to mechanism, which is itself only a secondary principle. Some have had recourse to a fluid conveyed into the fibres of muscles, by which they were swelled, and thereby shortened. One of the most plausible of these hypotheses supposes this fluid to be the blood; but this is plainly a petitio principii, for in order to set the blood in motion muscular motion is necessary. Other fluids have been supposed to have this effect; but even the existence of these has not been proved, and indeed the most solid objections might be brought against all the theories that have hitherto been invented.

Dr. Blane considers muscular motion as referrible to an original law of animated matter, whereby its particles are endowed with an attractive power, for which no cause can be assigned, any more than for gravitation, cohesion, or chemical affinity. If the shortening of a muscular fibre, said he, depend on this increased power of attraction between its particles, the effect will be to add to the power of cohesion in the fibre; and to determine this he made the following experiment:—Having taken the flexor muscle of the thumb of a man newly dead, while yet warm and flexible, he appended a weight to it, continually augmenting it until the muscle broke; and this he found was done when 26 lbs. had been added: yet a living man of the same apparent strength and age could with ease lift a weight of 38 lbs. by the exertions of the same muscle. 'It is farther in proof of this fact,' he adds, 'that in the case of a violent strain, from muscular contraction in the living body, it is the tendon that gives way; whereas we have seen that in the dead body the muscle is the weaker of the two. It is also well known that, in cases of over exertion, the muscular fibres themselves do not give way, though the strongest tendons, such as the tendo Achillis, and even bones, such as the knee-pan, are broke by their living force, which, in such instances, must be many times greater than the strength of the dead fibres. There is a case related in the Philosophical Transactions by Mr. Amyand, wherein the os humeri was broken by an exertion of the muscles. Every one has heard of fractures happening from very slight accidents. These occur most probably from a jerk of the muscles concurring with the external violence. The sensible increase of hardness in a muscle, when in a state of contraction, may also be considered as a proof of an increased attraction of its particulars to each other at that time.'

'Contraction of a muscle produces no change in its density, and animal life differs from inanimate matter in this respect, as well as in most of its other properties and laws. One purpose in nature for muscles always preserving the same density may be, that, as some of them act in confined cavities, inconveniences might arise from their occupying more space at one time than at another. In the extremities of crustaceous animals, for instance, which are filled with muscles, a change of density would be apt to burst them. Another circumstance, in which the contractions of muscles differ from simple elasticity is, that the former, however frequent and violent, does not produce any heat, as collision and tension are known to do. This may admit of some cavil with regard to animals of warm blood; for one of the theories with regard to animal heat is, that it arises from the perpetual vibration of muscular fibres, particularly those of the vascular system; but this is not the case with respect to animals of cold blood, in which the actions of life are equally vigorous. The principal phenomena, therefore, of muscular motion are, the shortening of the fibres, the lateral swell, the increase of cohesion and hardness, and the unchanged density and temperature. As there is no alteration in the density of a muscle, in passing from relaxation to contraction, this change cannot consist in the approximation of the integrant parts of the fibres, but must depend on some other circumstances in the intimate dispositions of the particles. In attempting to conceive in what this consists, the following explanation may be offered. It is probable that the regular structure of solid bodies depends on the polarity and shape of their integrant parts. Now all bodies, except such as are spherical, must have a long and a short axis; and let us imagine the fibres of muscles to be composed of spheroidal particles, we may then conceive relaxation to consist in their being disposed with their long axis in the line of their fibres, and contraction to consist in their short axis being disposed more or less in that direction. This will not only account for the decurtation and uniform density, but for the lateral swell, and also for the increased hardness and cohesion; for though the particles do not approach or recede, as in bodies simply elastic, yet their power of attraction will be increased by their centres being brought nearer, and by being applied to each other by more oblate surfaces. This hypothesis accords with what has been before proved concerning the unchangeable density; for what is lost in one dimension is gained in another; and

the cause for there being no increase in temperature depends probably on the same circumstance by which the density is preserved unaltered.' But in the prosecution of this subject we are involved in the universal difficulty. This is the action of stimuli, by which the muscles are exerted to contraction, and upon which all the phenomena of life depend.

The Dr. concludes his subject with considering the muscles as mechanical powers. 'As they constitute the strength of animals, it may be proper to consider the relation of their strength to their bulk, and the relation of the bulk and strength of the body to the density and cohesion of its own materials; and to the bulk, density, and cohesion of the external inanimate bodies with which it is conversant. It has been demonstrated by Galileo that in similar unequal bodies of a cylindrical or prismatic shape, such as the limbs of animals nearly are, the ratio of their efforts to break by their own weight is in the quadruplicate ratio of their lengths; but that the resistance they make to the same force is only in the triplicate ratio of their lengths. It follows from this that, in order to endow the limbs of animals with the same relative force, it is not only necessary that the bones should possess an increased proportion of thickness in order to give an adequate increase of what may be called the dead strength; but a similar increase of living strength is necessary by a suitable addition of muscular power in order to keep pace with the increased size of the bones. Now we observe, in fact, that in the large sized animals, such as the bull and the elephant, the thickness both of their bones and muscles becomes greater in proportion to the length of their limbs than in the smaller animals, and they are therefore of a less elegant form. But nature has not carried this so far as to compensate for the disadvantage arising from the increase of size; for the greater animals have not the same proportional strength, in relation to their bulk, that the smaller animals have. It has been computed that a flea can draw from seventy to eighty times its own weight, whereas a horse cannot with ease draw more than three times his own weight. This disproportion between size and strength is very observable in different individuals of the human species; for tall men are not muscular, even in the simple proportion of their stature.' Considering the manner in which the muscles act upon the bones into which they are inserted, and considering the bones as levers, the muscles seem to act upon them at a very great disadvantage, being always inserted much nearer the fulcrum than the weight to be raised. Thus the two muscles of the arm, named biceps and brachiæus internus, in order to support in the hand a weight of one pound, with the fore arm at right angles to the humerus, must exert a power equal to ten pounds. Another circumstance which tends to waste the power is the obliquity with which they are inserted into their bones; so that the greater part of the force is expended in pressing one bone against another at the articulation, and only a small part of it in making the flexures and extensions. These disadvantages, however, are compensated by a number of conveniencies, which could not have been obtained on any other plan. We must distinguish between those actions which consist in pressure and those which depend on percussion; for, as the momentum of this last depends on velocity, it is evident that there must be a great advantage from the insertion of the tendon being near the centre of motion, as greater velocity with less expense of contraction will thus be communicated to the extremity. The muscles, for instance, which are attached to the olecranon, in performing those actions with the hand which require rubbing, act with a disadvantage exactly proportional to the inequality of the distance from their insertion to the joint of the elbow, and that from the same joint to the hand. This is an act of pressure. But in the case of percussion, as in the act of using a hammer, there is an evident advantage resulting from the velocity communicated to the extremity; for in order to have produced the same velocity, with the insertion at a greater distance from the centre of motion, a much greater degree of contraction would have been necessary, and our author shows that fatigue principally depends on a contraction of the muscles. 'If any one,' he says, 'will take the trouble of comparing the fatigue of the biceps muscle, in bearing a weight in the hand with the elbow joint bent to a right angle, with that of bearing the same weight for the same length of time with the joint at an acute angle, he will be sensible how much the degree of fatigue depends on the extent of contraction; and, by attending to the relative situation of muscular fibres, it will appear that Nature, in distributing the fibres of muscles obliquely, has had it in view not only to increase their number, but to save contraction.' In considering the actions of the various muscles in producing the different actions of the body, we find scarcely one produced that can be called direct. In some instances we find two muscles, or two sets of muscles, co-operating, so that the motion effected by them shall be in the diagonal of their direction. This is the case of the oblique muscles of the abdomen in some of their actions, and of the intercostal muscles in all theirs. Sometimes different portions of the same muscle combine in like manner to produce a similar effect; and in all the long muscles, however simple their origin and insertion may be, there is an internal obliquity of their fibres with regard to one another; for these do not run from end to end, but there are parts of the tendon running into the belly of the muscle, so as to divide it into penniform and rhomboidal portions. This distribution of the fibres takes off from the length; but, as it takes place in those cases where the origin and insertion are at a considerable distance, this can be afforded; and this, as well as the waste of power in consequence of oblique action, is more than compensated by the increased strength from the fibres being multiplied; for, in consequence of this structure, there is an extent of tendon afforded sufficient for the insertion of a greater number of fleshy fibres. The Dr. illustrates this principle in the mechanism of muscular action from the example of fish; a species of animals which exert greater muscular powers than any

other. 'The muscles of most fish,' says he, 'consist of regular series of oblique short fibres, forming those strata which every one must have observed in their muscular substance. Their motions are more simple and limited than those of land animals, but much more vigorous; for a fish in the sea has to make its way through a medium about 1000 times more dense than air, and with more rapidity than those which inhabit the land. Nature, therefore, instead of giving them muscles whose fibres would run straight from one end of their body to the other, has multiplied their numbers by distributing them into short and oblique portions. I have seen the sword of a swordfish sticking in a plank which it had penetrated from side to side; and when it is considered that the animal was then moving through so dense a medium, and in the same direction with the ship, we must form a high conception of its muscular power.'

For tables of the various muscles of the human body, with their various uses, see our article ANATOMY.

MUSCLE SHOALS, an expansion of the river Tennessee, about 250 miles from the mouth of the river, and about the same distance from the whirl, or suck, where the river branches through the Great Ridge, or Cumberland Mountain. The expansion extends about twenty-five miles, is two or three miles wide, and receives its name from the number of soft shell turtles and fresh water clams found here.

MUSCULUS (Andrew), a Lutheran divine, who was professor of divinity at Francfort on the Oder, in the sixteenth century, and wrote several books on theology. He died in 1580.

MUSCULUS (Wolgfang), a learned protestant divine, born at Dieuze in Lorraine, in 1497. He joined the Benedictines, and was esteemed a good preacher; but, having embraced Luther's doctrines, was obliged to fly to Strasburg, where he married. After this he suffered great hardships, and was obliged to work for his bread; but at length was made ministering deacon of the chief church in Strasburg; whence he removed, in 1527, to Augsburg, where he prevailed on the magistrates to abolish the popish worship. When Augsburg was taken by Charles V. he retired to Berne, where he was appointed professor of divinity, and died in 1563. He was a man of deep erudition, and translated several works of the Greek fathers into Latin. He also published comments on the Scriptures.

MUSCULUS, a military machine, made use of by the Romans to cover and protect the soldiers while they approached and undermined the walls of besieged places, or filled the ditches. It seems to have resembled the testudo in form, but was smaller in size. See TESTUDO.

MUSE, *n. s.* & *v. n.* } Fr. *muse, muser;* Belg.
MUSE'FUL, *n. s.* } *muse, muysen;* Teut. *mus;* Span., Ital., Port. and Lat. *musa;* Gr. μουσα. Anciently a goddess, of whom there were nine, supposed to preside over poetry and the fine arts (see below): hence the power or genius of poetry; deep thought or attention: to muse is, to ponder; think deeply; be engrossed or absent in mind; to be lost in wonder: museful, thoughtful; wrapt in silent thought.

Farisees herden the puple *musynge* of hym these thingis, and the princis and farisees senten ministres to take him. *Wiclif. Jon.* 7.

My mouth shall speak of wisdom; and my heart *muse* of understanding. *Psalm* xlix. 3.

All men *mused* in their hearts of John, whether he were the Christ or not. *Luke* iii. 15.

Her face upon a sudden glittered, so that I was afraid of her, and *mused* what it might be. 2 *Esdras* x. 25.

If he spake courteously, he angled the people's hearts; if he were silent, he *mused* upon some dangerous plot. *Sidney.*

The tidings strange did him abashed make,
That still he sat long time astonished
As in great *muse*, no word to creature spake.
Faerie Queene.

St. Augustine, speaking of devout men, noteth, how they daily frequented the church, how attentive ear they give unto the chapters read, how careful they were to remember the same, and to *muse* thereupon by themselves. *Hooker.*

Cæsar's father oft,
When he hath *mused* of taking kingdoms in,
Bestowed his lips on that unworthy place,
As it rained kisses. *Shakspeare.*

Why hast thou lost the fresh blood in thy cheeks;
And given my treasures and my rights of thee,
To thick-eyed *musing* and cursed melancholy? *Id.*

Do not *muse* at me,
I have a strange infirmity. *Id. Macbeth.*

The sad king
Feels sudden terror and cold shivering,
Lists not to eat, still *mutes*, sleeps unsound.
Daniel.

Begin, my *muse*. *Cowley.*

He was filled
With admiration and deep *muse*, to hear
Of things so high and strange. *Milton.*

The *muse*-inspired train
Triumph, and raise their drooping heads again.
Waller.

On these he *mused* within his thoughtful mind.
Dryden.

We *muse* so much on the one, that we are apt to overlook and forget the other. *Atterbury's Sermons.*

Lodona's fate, in long oblivion cast,
The *muse* shall sing, and what she sings shall last.
Pope.

Man superiour walks
Amid the glad creation, *musing* praise,
And looking lively gratitude.
Thomson's Spring.

But Nith maun be my *muse*'s well,
My *muse* maun be thy bonnie sel;
On Corsincon I'll glowr and spell,
And write how dear I love thee. *Burns.*

Now waving grain, wide o'er the plain,
Delights the weary farmer;
And the moon shines bright, when I rove at night
To *muse* upon my charmer. *Id.*

I again perceive
The soothing influence of the wafted strains,
And settle in soft *musings* as I tread
The walk, still verdant, under oaks and elms,
Whose outspread branches overarch the glade.
Cowper

Me now, of these
Deep *musing*, high ambitious thoughts inflame
Greatly to serve my country, distant land,
And build me virtuous fame; nor shall the dust
Of these fallen piles with show of sad decay
Avert the good resolve. *Byron.*

MUSEIA, Grecian festivals in honor of the muses, celebrated with games every fifth year, particularly by the Thespians. The Macedonians also observed a festival of the same name in honor of Jupiter and the Muses, which lasted nine days, and was celebrated with stage plays, songs, and poetical compositions.

MUSES, deities among the Pagans, supposed to preside over the arts and sciences. Hence it was usual for the poets, at the beginning of a poem, to invoke the aid of these goddesses. The Muses are said to have been originally only singers and musicians in the service of Osiris, or the great Egyptian Bacchus, under his son Orus; but in succeeding times they were deified, and called the daughters of Jupiter and Mnemosyne, or Memory. Diodorus Siculus says that Alcman of Messene, a lyric poet, who flourished in the twenty-seventh Olympiad, 670 years B.C., makes them the daughters of Uranus and Terra. It has been asserted by some ancient writers, that at first they were only three in number; and that their names were Melete (meditation), Mneme (memory), and Aœde (song or music); but Homer, Hesiod, and other mythologists, admit of nine; and Hesiod, in his Theogony, names them all. Each of them presides over some art or science, as music, poetry, dancing, astronomy, &c. By some they are called virgins, because the virtues of education appear unalterable; they are called Muses, Μυσαι, from μαω, to enquire or explain mysteries, because they taught things the most curious and important.

In a relievo, on a sarcophagus in the Capitoline Gallery at Rome, the nine Muses are represented in the following order:—

Clio is first, and distinguished by the roll or book in her hand, or with the longer bolder pipe (Hor. i. od. 12, v. 2). Her office was to celebrate the actions of departed heroes, though Statius makes her descend to lower functions, from the old notion that every thing penned in hexameters was an epic poem. Stat. 1. Sylv. 2. v. 10. Thalia was the muse of comedy and pastorals (Virgil, Eclogue 6, v. 2), and is distinguished by the comic mask in her hand, and her pastoral crook. Terpsichore has nothing to distinguish her. Ausonius gives her the cithara. On the medals of the Pomponian family, three muses have stringed instruments in their hands, but we do not know them from one another; and are besides used to call the cithara, barbiton, and testudo by the common name of lyres. These three muses are, in the relievo, the third, or Terpsichore, and the fifth and seventh, which appear to be Erato and Polyhymnia; though that cannot be determined till the names and shapes of the stringed instruments come to be better known.

Euterpe presided over music, and played on two pipes (tibiæ) at once, as in the remarks before Terence's plays. By these pipes she is distinguished, though sometimes she holds the fistula or calami, in her hands, and is so described by Ausonius. Hor. i. od. 1, v. 33. Erato, who presided over the amorous kinds of poetry, is neatly attired and looks pretty though thoughtful. She is represented at times pensive, but in other instances full of gaiety, as she appears on gems; both which characters, though directly opposite, suit with the ever-varying moods of lovers, and consequently are proper to their patroness. Ovid invokes Erato pleasantly enough in his Art of Love, and likewise in his Fasti for April, which among the Romans was considered as more peculiarly the lover's month. But Virgil appears to invoke her, in his Æneid, before a field of battle, with less propriety, unless indeed it was because the war was occasioned by a woman.

Calliope is called by Ovid the chief of the muses; and by Horace Regina, as skilful on all instruments. The tables in her hand mark her distinguishing character, which was to note down the worthy actions of the living. The books in ancient times somewhat resembled the rolls in the offices for old records; and the form now in use for books was then only used for tablets (pugillares) or pocket-books, called by Catullus pugillaria, and by Ausonius pugillar bipatens. Polyhymnia is specified by some stringed instrument in her hand, perhaps what the Romans called the barbiton, for which we have no name. Urania presided over astronomy, and is distinguished by the celestial globe at her feet and the radius in her hand. In statues the globe is sometimes in her hand, and sometimes placed on a column before her. Melpomene was the muse of tragedy, and was held, in fact, to preside over melancholy subjects of all kinds. She is distinguished by the mask on her head, which has occasionally been placed so far backward that it has been mistaken for a second face, as may be seen in Montfaucon 1. pl. 59.

The palm-tree, the laurel, together with all the fountains of Pindus, Helicon, Parnassus, &c., were sacred to the muses. Sometimes they were depicted as dancing in a chorus, probably to intimate the near and indissoluble connexion existing between the liberal arts and sciences.

MUSE'UM, *n. s.* Gr. μουσεῖον. First applied to a temple of the Muses at Alexandria; a repository of learned curiosities.

It is not unfrequent with us to speak of cabinets of animals, cabinets of birds, of fishes, reptiles, and other similar articles, as a mode of expressing such an assemblage of natural history as may not be of sufficient importance to deserve the epithet of a *museum*. *Dr. A. Rees.*

MUSEUM originally signified a part of the palace of Alexandria, which took up at least one-fourth of the city. This quarter was so called on account of its being set apart for the muses and the study of the sciences. Here were lodged and entertained the men of learning; who were divided into companies or colleges, according to the sciences of which they were the professors; and to each of these houses or colleges was allotted a handsome revenue. The foundation of this establishment is attributed to Ptolemy Philadelphus, who here placed his library. Hence museum is now applied to any place set apart as a repository for things that have an immediate relation to the sciences.

MUSEUM ASHMOLEAN, a noble building at Oxford, erected at the expense of the university, at the west end of the theatre, on which side it

has a magnificent portal, sustained by pillars of the Corinthian order. The front, which is to the street, extends about sixty feet, where there is this inscription over the entrance in gilt characters, Museum Ashmoleanum, schola naturalis historiæ, officina chymica. It was begun in 1679, and finished in 1683, when a valuable collection of curiosities was presented to the university by Elias Ashmole, esq., which were the same day deposited there; several accessions have been since made to it; among which are hieroglyphics and other Egyptian antiquities, an entire mummy, Roman antiquities, altars, medals, lamps, &c., and a variety of natural curiosities.

Museum, British. The British Museum, as the only *open* literary establishment in London, deserves our particular notice. To the disgraceful cupidity which marks the conduct of the age, our literary and even religious temples, like those of Jerusalem, are occupied by 'money changers,' who watch the gate like Cerberus, and like him are only to be passed by a bribe: not so this great national establishment, where persons of all ranks in society are freely admitted on merely giving their names; and, although upwards of two thousand visitors have been received in the course of five or six hours, yet no comparative injury has resulted to any of the curiosities it contains.

The building in which our national collections are deposited is situated in Great Russel Street, Bloomsbury, and was formerly called Montagu House, on account of its having been the residence of the dukes of Montagu. It was built by Ralph, the first duke of that title, in the reign of Louis XIV., under the direction of Peter Puget, a celebrated French architect, who came from Paris for the purpose. The principal building, which is on the north side of a spacious quadrangle concealed from the street by a lofty brick wall, is 216 feet in length, and fifty-seven feet high. The two wings are appropriated to the residence of the officers of the establishment. The alterations in progress for receiving his late majesty's library are of so peculiar and nondescript a character, that we must wait their completion before we venture to describe them. The exterior is of no positive order of architecture; but in the interior, the hall is spacious, the staircase ample, and the rooms not only lofty, but the ceilings of several of them are painted by Rousseau and Charles de la Fosse. The great staircase, the decorations of which have been recently restored, was painted by these two artists. The ceiling, which represents Phaeton petitioning Apollo for leave to drive his chariot, was painted by de la Fosse, who was eminent for the beauty and chasteness of his coloring; the landscapes and architectural decorations were by Rousseau, whose skill in perspective is perpetuated in many buildings in Paris, as well as in this staircase.

The British Museum is rich in MSS., printed books, sculpture, and the curiosities of nature and art; the collection of manuscripts is said to be the most numerous and most valuable of any in Europe. It was commenced by Henry VIII. who was anxious to found a royal library, and on the suppression of the religious houses purchased such manuscripts as Leland and others had rescued from the spoils of the monasteries; this library, which was considerably increased by his successors, continued to be kept in one of the royal palaces until the reign of George II., who presented it to the British Museum.

The Harleian MSS. are a collection formed by Harley, lord Oxford, and increased by his son; they are bound up in 7639 volumes, and include, besides distinct treatises, nearly 40,000 original rolls, letters patent, signs manual, charters with their confirmations, warrants, deeds, and other instruments connected with the history or topography of the country. Among these there is a finely illuminated copy of Hardyng's Chronicle, much more perfect than Grafton's edition. In this copy, Hardyng, who served Hotspur, and was with him in all his battles, has inserted the letter of defiance sent to king Henry IV. by the earl of Northumberland, his son Henry Hotspur, and his brother the earl of Worcester, previous to the battle of Shrewsbury. The library also contains a very old copy of William of Malmsbury's elaborate treatise de Gestis Regum Anglorum, which was formerly preserved with the most religious care at Rochester; several copies of the Dunstable Chronicle, one of which is beautifully illuminated, and another adorned with the blazon of the arms of several emperors and kings. The library is rich in heraldic collections, and includes genealogies and memoirs of most of the British monarchs, a large collection of royal letters and mandates, and a curious volume which formerly belonged to lord treasurer Burleigh. It contains a register of the grants, &c., which passed the privy seal, signet, or sign manual during the reigns of Edward V. and Richard III., including 2378 distinct documents. There are also in this collection several volumes formerly belonging to Sir Simond d'Ewes, the Suffolk antiquary, Stow the historian of London, Mr. Charles the Lancaster herald, and the MSS. of Fox the martyrologist. This valuable collection of MSS. was purchased by government for the sum of £10,000, and it is much to be regretted that the printed books belonging to the Harley library were not purchased at the same time. They were sold to Osborne the bookseller for £13,000, which was £5000 less than the binding had cost the earl of Oxford.

The Cottonian collection of MSS. is the next in number and value, founded by Sir Robert Cotton, the friend of Camden, Lambard, and other learned antiquarians of that period; such was the avidity with which he collected books, and the attachment he felt for them, that when he fell out of favor with Charles I., in consequence of his amanuensis having copied a tract which was in his library, written by Sir Robert Dudley, duke of Northumberland, at Florence, in 1613, he was shut from his books, he declared 'that they had broken his heart who had locked up his library from him;' and a short time before his death he addressed a memorial to the privy council, stating that it was the cause of his mortal malady. The obnoxious tract was entitled Propositions for his Majesty's service to bridle the impertinency of Parliaments; but it was en-

culated under the new title of A Project how a Prince may make himself an absolute Tyrant.

The library, which originally consisted of 958 volumes, was, by a fire, in 1731, reduced to 861, of which 105 were damaged bundles in cases; the number of articles, however, are upwards of 26,000. The fire took place when the library was deposited in a house in little Dean's-yard. The books which were removed to the British Museum, in 1753, are arranged in fourteen presses, over which are placed the busts of the twelve Cæsars, with Cleopatra and Faustina. In this collection there is the original Magna Charta, which king John signed at Runnymede, together with the original copy of the articles preparatory to the signing of the great charter, with the seal perfect; the latter was presented to the Museum in 1769 by earl Stanhope.

The Lansdown MSS., purchased pursuant to a vote of parliament of the marquis of Lansdown, in 1807, for the sum of £4325, contain the Burghley Papers, in 122 volumes, including one of Charters and other documents of an early date; and the Cæsar and Kennet papers, formerly belonging to Sir Julius Cæsar, judge of the admiralty to queen Elizabeth, and to Dr. White Kennet, bishop of Peterborough. They are bound up in 1245 volumes, and are rich in original letters, and historical, biographical, and heraldical documents.

The collections of Sir Hans Sloane and Dr. Birch are also large; that of the former, containing 4100 volumes, principally on physic, natural history, and natural philosophy, with several journals of voyages, and some oriental MSS. Those of Dr. Birch, many of which are copies of valuable papers in private collections, are, in number, 337, chiefly on history, biography, divinity, and literature.

The Hargrave MSS., purchased in 1813, consist of 499 volumes, which are almost exclusively devoted to law. The MSS. of Dr. Burney, which, together with his library and printed books, were purchased for £13,500, contain the most complete and valuable copies of Homer's Iliad, a series of the Greek orators, the Greek Gospels of the tenth and twelfth centuries, and many other classical works.

These are the principal collections of MSS.; they are, however, far from including all that are deposited in the Museum, as many have been added by gift, bequest, or purchase, among which are twenty-four volumes of MSS., principally oriental, belonging to Brassey Halhed, esq. M. P. A collection of MSS. and rolls, consisting of sixty-two articles, relating to Kent, purchased of Mr. Hasted, the historian of the county. Fifty-seven volumes of public acts, &c., relating to the history and government of England from the year 1105 to 1608, collected by Thomas Rymer, but not printed in his Fœdera. Sixty-four volumes of rolls of parliament, which, together with Rymer's papers, were presented by the house of lords. Forty-three volumes of Icelandic MSS., presented by Sir Joseph Banks. Forty-one volumes, containing the decisions of the commissioners for settling the city estates after the fire of London, presented by Thomas Cowper, esq. A collection of forty-seven volumes, relating to the history of Ireland, presented by the Rev. Jeremiah Milles, dean of Exeter. Sir William Musgrave's MSS., forty-four volumes, thirty-two of which consist of an obituary, the rest being a collection of biographical adversaria, autographs, original warrants, catalogues of portraits, &c., which were bequeathed by the baronet.

The MSS. of the Rev. William Cole, M.A. This gentleman, although a clergyman of the established church, was a rank and intolerant Catholic; his MSS., which are principally topographical, are interlarded with so many coarse and pointed personalities, that, in bequeathing them to the museum, he ordered they should be sealed up, and not opened until thirty years after his death. Mr. Cole had originally written only on one side of his MSS., but economy afterwards prompted him to fill up the other, so that the volumes contain the most singular admixture of subjects; thus, on the cartulary of some monastery, we frequently find a receipt for making good soup, an entry respecting a servant, a tirade against Wilkes and liberty, the price of hay and corn at Cambridge market, or the number of the last lottery ticket he had purchased. Thirty-eight volumes of MSS., and nine of drawings, relating to the history and topography of Sussex, by Sir William Burrel, to which John Fuller, esq., of Rose Hill, has added several collections on the same subject, made by the Rev. William Hayley, of Brightling. Twenty-seven volumes of music, by the old composers, presented by James Mathias, esq.; and twenty-four volumes on the history of this delightful science, which, with a large collection of printed books, were bequeathed by Sir John Hawkins: there are also several other MSS. presented by Mr. Cracherode, Dr. Askew, and others.

The library of printed books, though by no means complete, is very extensive, and is, perhaps, the richest in the world, not only in early typography, but in curious works of a more recent date. His majesty, George III., presented a most valuable collection of pamphlets, relating to the civil wars, which had been commenced by Charles I., and prosecuted by him, even when compelled to quit London, and seek refuge, when he could no longer resist the power which so long threatened him, in the country. The library of printed books, belonging to Dr. Burney, is particularly valuable; it contains a collection of newspapers, from the year 1603, until the time of his death, in 1817. This collection, which is by no means complete, extends to several thousand volumes. The collection of materials for a history of the stage, by the same learned gentleman, amounting to between 300 and 400 volumes, is valuable. The collection of prints is large, and includes the finest specimens of ancient arts.

In sculpture, the British Museum is particularly rich. The Townley collection, which was formed by Charles Townley, esq., during a residence of many years at Rome, consists of numerous splendid terracottas and marbles. Several fine pieces of ancient sculpture, formerly belonging to Sir Hans Sloane, Mr. Burke, and other collectors, have been added. There is a

fine bas relief, representing the Apotheosis, or deification of Homer, which for many years adorned the Colonna palace at Rome; a colossal head of Hercules, dug up at the foot of Mount Vesuvius, where it had been buried by the lava. Independent of the Egyptian marbles, and the Elgin collection, there are in the museum, forty-six terracottas, forty-five Roman sepulchral antiquities, and 225 Greek and Roman sculptures. Among the Egyptian antiquities are two very fine mummies, and fifty-six sculptures, most of which had been collected by the French, during Buonaparte's campaign in Egypt, and came into the possession of the English army, in consequence of the capitulation of Alexandria. Among these are a large Egyptian sarcophagus, used by the Turks, at Grand Cairo, as a cistern, and called the 'Lover's fountain;' and the Rosetta stone with three inscriptions, recording the services which Ptolemy V. had rendered his country. To this collection several valuable articles have been contributed by modern travellers, particularly the head and upper part of the body of a colossal statue, brought from the ruins of the Memnonium, and presented by Mr. Salt, and the late Louis Burckhardt.

Twenty-three bas reliefs, representing the battles of the Centaurs and Lapithæ, and the combat between the Greeks and the Amazons, also enrich this gallery. They were found in the ruins of the temple of Apollo Epicurius, which was built by Ictinus, a contemporary of Pericles; but the most valuable collection is that formerly belonging to the earl of Elgin, formed during his embassy to the Ottoman Porte, and purchased by government for £35,000. These sculptures consist of fifteen of the metopes, and the exterior frieze of the cella of the Parthenon, with numerous other relics of antiquity from that celebrated temple, as well as from that of Erectheus. They are generally believed to have been executed from the designs of Phidias, the celebrated Athenian sculptor. Lord Elgin has been very harshly treated, for having despoiled Athens of these matchless productions of ancient art. The muse of Byron, most powerful in its hate, has perpetuated his abhorrence of the spoliation, in a poem, called The Curse of Minerva; and some of our travellers have recorded their sentiments on the ruins of the temple itself at Athens; the plaster wall, on the west side of the temple of Minerva Pollias, bearing the following inscription, cut in very deep characters:—

Quod non fecerunt Goti
Hoc fecerunt Scoti.

The British Museum contains a most extensive collection of minerals, systematically arranged, with numerous specimens of native iron, and fragments of the most celebrated aërolites that have fallen at various periods, either in England or abroad. In one room a British Oryctognostic collection has been commenced, and when complete must be a very valuable contribution to science. The minerals of the counties of England are distinctly classified, so that it may be ascertained at one view, if any, and which of the four classes of earths, metals, inflammable substances, and salts, are to be met with in any part of Great Britain. The counties are arranged alphabetically, though, if space could be obtained, it would be better that they should be classed geographically, when the approximation of the different substances in adjoining counties would more easily be traced.

The collections in zoology, conchology, and ornithology, are not only very complete, but that of entomology contains about 90,000 specimens. The collection of medals and coins, the basis of which was formed by the cabinets of Sir Hans Sloane, and Sir Robert Cotton, has received so many additions, that it is now the most complete of any in Europe.

In another room there is a curious collection of Penates, pateræ, necklaces, ear-rings, Hindu, Chinese, and Japanese idols, specimens of ancient armour, and other antiquities, which formerly belonged to Sir William Hamilton, together with the celebrated Barberini, or Portland vase, the most ancient and the most beautiful specimen of sculpture in glass that is known to exist. These are a few of the curiosities of this great national depository, the whole of which are open to the public, with the exception of the library; to which, however, access for the purposes of study is not difficult.

MUSGRAVE (Dr. William), a learned physician and antiquary, born at Charlton-Musgrave, in Somersetshire, about 1657. He studied at New College, Oxford. Having distinguished himself by his skill in medicine and natural philosophy, he was elected F. R. S.; and being made secretary, in 1684, he continued the Philosophical Transactions from No. 167 to No. 178 inclusive. He took his degree of M. D. in 1689; and, being admitted a member of the college of physicians, settled at Exeter, where he practised physic with great success. Being a man of extensive learning, he wrote several valuable works; as, 1. De Arthritide Anomalâ sive Interna Dissertatio. 2. De Arthritide Symptomatica Dissertatio. 3. Julii Vitalis Epitaphium, cum commentario. 4. De Legionibus Epistola. 5. De aquilis Romanis Epistola. 6. Inscriptio Temconensis, cum commentario. 7. Geta Britannicus, &c. 8. Belgium Britannicum. He died in 1721.

MUSGRAVE (Sir Richard), an Irish baronet and author, born about 1758. Having married a lady of the Cavendish family, he obtained, through her connexions, the place of collector of the excise for Dublin, a seat in the Irish parliament, and a baronetcy. He died in 1818.

MUSH'ROOM, n. s. } Fr. *mousseron*; old
MUSH'ROOMSTONE. } Fr. *muscheron*. A species of AGARICUS or BOLETUS (which see), growing often on dunghills and uncultivated ground. It has become a metaphorical term of reproach for an upstart or low-bred man: mushroomstone is, a kind of fossil. See LYNCURIUM.

Mushrooms come up in a night, and yet they are unsown; and therefore such as are upstarts in state, they call in reproach *mushrooms*.
Bacon's Natural History.

While he is rotting in this gaol, his young son Jehoiachim starts up in his throne; like to a *mushroom*, that rises up in a night and withers in a day.
Bp. Hall.

Tully, the humble *mushroom* scarcely known.
The lowly native of a country town. *Dryden.*

Fifteen *mushroomstones* of the same shape.
Woodward.

M U S I C.

MU'SIC, *n. s.* Mu'sical, *adj.* Mu'sically, *adv.* Mu'sicalness, *n. s.* Music'ian. } Fr. *musique;* Italian and Lat. *musica;* Greek μουσικη, harmony or melody. The science of melody and harmony; harmonious or melodious instruments, or where such entertainments prevail. The other derivatives follow these senses.

When she spake,
Sweet words, like dropping honey, she did shed;
And 'twixt the pearls and rubies softly brake
A silver sound, that heavenly *musick* seemed to make.
Faerie Queene.

The merry birds
Chanted above their cheerful harmony,
And made amongst themselves a sweet consort,
That quickened the dull spirit with *musical* comfort.
Id.

The man that hath no *musick* in himself,
Nor is not moved with concord of sweet sounds,
Is fit for treasons. *Shakspeare. Merchant of Venice.*

Though the *musicians* that should play to you,
Stand in the air a thousand leagues from hence;
Yet strait they shall be here. *Id. Henry IV.*

A painter may make a better face than ever was; but he must do it by a kind of felicity, as a *musician* that maketh an excellent air in *musick*, and not by rule. *Bacon's Essays.*

Such *musick*
Before was never made
But when of old the sons of morning sung.
Milton.

Sweet bird that shun'st the noise of folly,
Most *musical*, most melancholy,
Thee chauntress, oft the wood among,
I woo to hear thy even song. *Id.*

Now look into the *musick*-master's gains,
Where noble youth at vast expence is taught,
But eloquence not valued at a groat. *Dryden.*

Neither is it enough to give his author's sense, in poetical expressions and *musical* in numbers. *Id.*

The praise of Bacchus then the sweet *musician* sung;
Of Bacchus ever fair and ever young. *Id.*

Any continual sound, as the *music* of birds, or a fall of waters, awakens every moment to the mind of the beholder, and makes him more attentive to the several beauties of the place that lie before him.
Addison.

Several *musical* instruments are to be seen in the hands of Apollo's muses, which might give great light to the dispute between the ancient and modern *musick.* *Id.*

Valentine, *musically* coy,
Shunned Phædra's arms. *Id.*

We have dancing-masters and *musick*-masters.
Arbuthnot and Pope.

By *musick* minds an equal temper know,
Nor swell too high, nor sink too low;
Warriours she fires with animated sounds,
Pours balm into the bleeding lover's wounds.
Pope.

What *musick*, and dancing, and diversions, and songs, are to many in the world, that prayers, and devotions, and psalms are to you. *Law.*

And who on the globe can be found,
Save your generation and ours,
That can be delighted by sound,
Or boast any *musical* powers? *Cowper.*

And as the spot where they appear he nears,
Surprised at these unwonted signs of idling,
He hears—alas! no *music* of the spheres,
But an unhallowed, earthly sound of fiddling!
Byron.

Introduction.

Music is the art of combining sounds in a manner agreeable to the ear. This combination may be either simultaneous or successive; in the first case it constitutes harmony, in the last melody. But though the same sounds, or intervals of sound, which are employed in the construction of some of the ancient melodies, give pleasure when heard in succession, they will not always produce the same effect when accompanied with harmony; yet the principles which constitute perfect and imperfect harmony are mostly, if not entirely, the same with those of modern melody. By perfect harmony we do not here mean that plenitude, those complex modifications of harmonic sound, which are admired in practice; but that harmony which is called perfect by theoricians and artists; that which results from the coalescence of simultaneous sounds produced by vibrations in the proportions of minor thirds, perfect fifths, and octaves, or their replicates. By imperfect harmony is to be understood all dissonances requiring resolution into perfect harmony. When we would investigate the principles from which these happy modifications of sound result, and by which they are determined; or when we would explore the sensations, whether mental or corporeal, with which they affect us, they are found to constitute a science, which is not only extensive but profound. It has been observed that the ancient definitions of music were not proportioned in their extent to our present ideas of that art; but Rousseau betrays a temerity inconsistent with the philosophical character, when he thence infers that their ideas were vague and undetermined. Nor can we adopt his Egyptian etymology of the word music. The established derivation from musa could only be questioned by a paradoxical genius. That music had been practised in Egypt before it was known as an art in Greece is indeed a fact which cannot be questioned; but it does not thence follow that the Greeks had borrowed the name as well as the art from Egypt. If the art of music be so natural to man that vocal melody is practised wherever articulate sounds are used, there can be no reason for deducing the idea of music from the whistling of winds through the reeds that grew on the Nile. And, indeed, when we reflect with how easy a transition we may pass from the accents of speaking to diatonic sounds; when we observe how early children adapt the language of their amusements to measure and melody, however rude; when we observe that they even apply a kind of natural melody to the lessons they are taught to read; when we consider how early and universally these practices take place, there is no avoiding the conclusion, that the idea of music is connatural to man, and implied in the original princi

ples of his constitution. The principles on which it is founded, and the rules by which it is conducted, constitute a science. The same maxims when applied to practice form an art.

Music may be divided into the mechanical and the expressive. The first is limited to the mere mechanism of sounds, and reaches no farther than the external senses, without carrying its impressions to the heart, and can produce nothing but corporeal sensations more or less agreeable. The second by lively and accentuated inflections, and by sounds which may be said to speak, expresses all the passions, paints every possible picture, reflects every object, subjects the whole of nature to its skilful imitations, and impresses even on the heart and soul of man sentiments proper to affect them in the most sensible manner. 'This,' says Rousseau, 'is the genuine lyric and theatrical music, and was that which gave double charms and energy to ancient poetry; this is what, in our days, we exert ourselves in applying to the drama, and what our singers endeavour to execute on the stage. It is in this music alone, and not in harmonics or the resonance of nature, that we must expect to find accounts of those prodigious effects which it formerly produced.

'But, in fact, all music which is not in some degree characterised by these pathetic and imitative powers, deserves no better name than that of a musical jargon, and can only be effectuated by such a complication and intricacy of harmony as may confound, but cannot entertain, the audience. This character, therefore, ought to be added as essential to the definition of music.' Whilst moral effects are sought in the natural effects of sound alone, the scrutiny will be vain, and disputes will be maintained without being understood; but sounds, as representatives of objects, whether by nature or association, introduce new scenes to the fancy, and new feelings to the heart; not from their mechanical powers, but from the connexion established by the Author of our frame between sounds and the objects which, either by natural resemblance, or unavoidable association, they are made to represent.

It would seem that music was one of those arts which were first discovered; and that vocal was prior to instrumental music; for it is probable that music was originally formed to be the vehicle of poetry. We are told by ancient authors that all the laws, maxims, and exhortations to virtue, the characters and actions of gods and heroes, the lives and achievements of illustrious men, were written in verse, and sung publicly by a choir to the sound of instruments; and it appears from the Scriptures that such was often the custom among the Israelites.

The English, from the invasion of the Saxons to that era in which they imbibed the art and copied the manner of the Italians, had a music which neither pleased the soul nor charmed the ear. The primitive music of the French deserves no higher panegyric. Of all the barbarous nations, the Scots and Irish seem to have possessed the only kind of music calculated to interest the feelings of future generations. The first, from its varied expression, enables us to understand in a measure the extraordinary virtues ascribed by the different writers of antiquity to the Grecian modes. The other, composed upon the principles of modern composition, is of a less varied description.

The primitive music of the Scots may be divided into the martial, the pastoral, and the festive. The first consists either in marches, which were played before the chieftains, in imitation of the battles which they fought, or in lamentations for the catastrophes of war and the extinction of families. These wild effusions of natural melody preserve several of the rules prescribed for composition. The strains, though rude and untutored, are frequently terrible or mournful in a very high degree. The port or march is sometimes in common, sometimes in triple time; regular in its measures, and exact in the distance between its returning cadences; most frequently, though not always, loud and brisk. The pibroch, or imitation of battles, is wild and abrupt in its transitions, from interval to interval, and from key to key: various and desultory in its movements; frequently irregular in the return of its cadences; and, in short, through the whole, seems inspired with such fury and enthusiasm, that the hearer is irresistibly infected with all the rage of precipitate courage, notwithstanding the rudeness of the accents by which it is kindled. That species of Scottish music which we have styled festive, seems now limited to reels and country dances. These may be either in common or triple time. They most frequently consist of two strains; each of these contain eight or twelve measures. They are truly rhythmical, and possess a manœuvre and expression peculiar to themselves. To these the pastoral forms a striking contrast. Its accents are plaintive, yet soothing; its modulations natural and agreeable; its rhythmus simple and regular; its transitions, at least, for the most part, from one concinnous interval to another; its movements slow, and may be either in common or triple time. It scarcely admits of any other harmony than that of a simple bass. A greater number of parts would cover the air and destroy the melody.

Dr. Franklin, writing to lord Kaimes on this subject, says, 'Give me leave, on this occasion, to extend a little the sense of your position, 'That melody and harmony are separately agreeable, and in union delightful;' and to give it as my opinion, that the reason why the Scotch tunes have lived so long, and will probably live for ever (if they escape being stifled in modern affected ornament), is merely this, that they are really compositions of melody and harmony united, or rather that their melody is harmony; I mean, the simple tunes sung by a single voice. As this will appear paradoxical, I must explain my meaning. In common acceptation, indeed, only an agreeable succession of sounds is called melody; and only the coexistence of agreeable sounds, harmony. But since the memory is capable of retaining for some moments a perfect idea of the pitch of a past sound, so as to compare it with the pitch of a succeeding sound, and judge truly of their agreement or disagreement, there may and does arise from thence a sense of harmony between the present and past sounds, equally pleasing with that between two present sounds. Now, the construction of the old Scotch

tunes is this, that almost every succeeding emphatical note is a third, a fifth, an octave, or some note that is in concord with the preceding note. Thirds are chiefly used, which are very pleasing concords.

'That we have a most perfect idea of a sound just past, I might appeal to all acquainted with music, who know how easy it is to repeat a sound in the same pitch with one just heard. In tuning an instrument, a good ear can as easily determine that two strings are in unison by sounding them separately as by sounding them together; their disagreement is also as easily, I believe I may say more easily, and better distinguished when sounded separately; for when sounded together, though you know by the beating that one is higher than the other, you cannot tell which it is. I have ascribed to memory the ability of comparing the pitch of a present tone with that of one past.

'Farther, when we consider by whom these ancient tunes were composed, and how they were first performed, we shall see that such harmonical successions of sounds were natural and even necessary in their construction. They were composed by the minstrels of those days, to be played on the harp, accompanied by the voice. The harp was strung with wire, which gives a sound of long continuance; and had no contrivance like that of the modern harpsichord, by which the sound of the preceding note can be stopt the moment a succeeding note begins. To avoid actual discord, it was therefore necessary that the succeeding emphatic note should accord with the preceding, as their sounds must exist at the same time. Hence arose that beauty in those tunes that have so long pleased, and will please for ever, though men scarcely know why.'

These observations are for the most part true as well as ingenious. But the transition in Scottish music, by consonant intervals, does not, as Dr. Franklin imagines, arise from the nature of the instruments upon which they played. Besides it is more than probable that the ancient British harp was not strung with wire, but with the same materials as the Welsh harps at present; and these strings have not the same permanency of tone as metal; so that the sound of a preceding emphatic note must have expired before the subsequent accented note could be introduced. Those who are acquainted with the manœuvre of the Irish harp, know well that there is a method of discontinuing sounds no less easy and effectual than upon the harpsichord. When the performer finds it proper to interrupt a note, he has no more to do but return his finger gently upon the string immediately struck, which effectually stops its vibration.

The principles upon which the melodies of Scotland are constructed are coeval with the first systems of sounds invented by the earliest musicians upon record.

PART I.

HISTORY OF MUSIC.

The ancient history of music, even among the most cultivated nations, is now entirely lost, or so unhappily obscured that we can make but few certain or satisfactory discoveries in it. And, as no annals could be transmitted to posterity of that music which prevailed among such people as are called barbarous, our accounts of it must be still less authentic and satisfactory than those of the former. Even at periods which are more recent, and may therefore be thought more within the sphere of our investigation, we are at a loss both for the eras and the authors of some essential improvements in music. Yet those parts of its history which are either already known, or may be discovered, if related at full length with proper illustrations, would produce a work little inferior in size to the whole extent of that Encyclopædia, of which it is only to constitute a part. All, therefore, which can be expected, is to give a short and cursory detail of its primary state, and its most important revolutions so far as history enables us.

With respect to the origin and discovery, or as some have called it the invention of music, we read in St. Thomas Aquinas, that the first man possessed every science by means of images placed in him by the author of the universe, and that they were not acquired by his experience. Lucretius ascribes it to the whistling of the winds in the hollow reeds. Franckinus to the various sounds produced by the hammers of Tubal Cain. Cameleon Pontique and others have been ridiculed for ascribing it to the singing of birds, as Zarlino to the sound of water. Diocles, too, has been cited as the discoverer of music, having accidentally struck different sized vases in a pottery, and observed sounds of different degrees of acuteness and gravity to issue from them. Authors have, however, agreed in ascribing to Jubal the son of Lamech the discovery of musical sounds, and the theory of their portions to Pythagoras.

The origin of instrumental music, says a late writer, appears to have been at a period much prior to the date of authentic history; and, when we look for its epoch or its discoverer, we are carried at once into the wild regions of fable and mythology. The god Mercury, or Hermes, is said to have been the inventor of the lyre, by distending strings of different tensions and diameters upon the shell of a tortoise which he found upon the shore. The first exhibition of the fistula, or shepherd's pipe, is ascribed to Pan. But of these persons and their actions little or nothing can be ascertained with proper evidence. The Chinese maintain the prior right to the invention of instrumental music, and attribute it to the act of blowing the pith out of the bamboo.

But whatever credit may be given to these most probably vague opinions, we only know that observation and reflection, in the earliest ages must have proceeded in proportion as the activity of the mind was excited by interesting objects. The notes, though not always appreciable, of the nightingale, cuckoo, thrush, skylark, and blackbird, would, independently of the instinctive powers originally implanted in man, to sing as to speak, rejoice, and laugh, sufficiently teach him the difference between grave and acute sounds, and excite him to imitate and prolong such sounds, though as yet he was unacquainted

with the principles of the diatonic scale, thus constituting in the earliest ages the first principles of singing.

But music, like other sciences, has its foundation in nature; its principles are the gift of God implanted in our constitution; we neither learned it from the singing of birds nor the chiming of hammers. Its rules are strictly the result of mathematical observation, and the fruit of reflection bestowed upon the subject, by musicians of every age and every climate, whether as it regards melody or harmony. This art, therefore, forms a body of science which it has taken ages to construct As we are ignorant of the name of the inventor of the first specimen of harmony, so are we also of the first composer of melody: the imperfection of the rules established or proposed by the first observers of sounds being forgotten in the more perfect ones of succeeding generations.

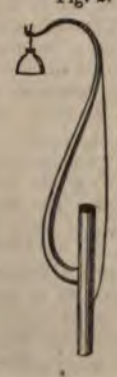
Confining ourselves to observations principally of a practical nature, we will merely remark that the ancient Greeks, from whom we, through the Romans, derive our music, had two distinct species of it: one corresponding to the various inflections of the human voice, called by us melody of speech, and the other precisely agreeing with our notions of singing; the former consisting of mathematical divisions of sound into quarter tones on certain parts of our scale, called by the ancients genus spissum; and the latter, to which we claim the reader's attention, into half-tones, and whole tones, called diatonic.

It is obvious that a system either of eight or four sounds, varying in their intervals, must have been adopted, of which one formed the principal one; also, that some given sound, natural or artificial, must have been used in the earliest ages, with a view of regulating the pitch of the voice. The lyre served for this purpose, both in singing and haranguing the multitude; it was tuned according to the nature of the voice, or of the piece to be sung or recited.

A species of monochord, termed the lyre of one string, served, like the pitch-pipe of the moderns, to ensure a given sound, or as we term it a key-note, to which all the other sounds bear a certain relation. It was formed, according to several authors of reputation, after the following manner, or, as they express it, after the model of Diana's bow, as in fig. 1; also as seen upon various ancient marbles as in fig. 2, with a weight attached to the string to secure a certain tension. Instead of a weight Blanchini gives a bell, and not, perhaps improperly; since, in the earliest ages of counterpoint, we find a bell was used for the same purpose. Hence the expression tone, or tones, of the ancients, i. e. key-notes of their different modes.

Fig. 1.

Fig. 2.



The dichord, called by Athenæus, the pectis, or lyre of two strings, is represented as in fig. 3,

Fig. 3.

Fig. 4.

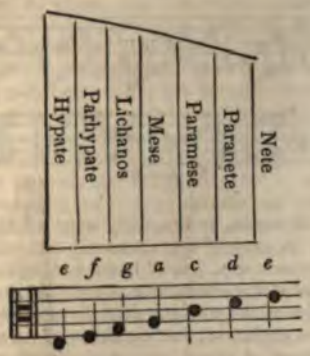
or as in fig. 4., and was tuned with the double view of regulating the voice, and of marking the key-note with its fourth and fifth; all the intermediate sounds being left to be intonated by the singer.

The trichord, as is shown in plate VII. Music, fig. 1, taken from a medal in the possession of the late duke of Brandenburg, we are expressly told was tuned to the sounds E, F, G, upon the bass-staff, forming three key-notes of as many different modes. The strings of these lyres, about a foot and a half in length, were made of thread, till the discovery of the entrails of animals for that purpose by Linus.

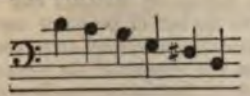
The lyre of four strings, as in fig. 2, is called by many authors, the lyre of Mercury, and appears to have been variously tuned, viz. E F G A, also C F G C; the first arrangement expressing a system of four sounds, composed of one half-tone and two tones, forming a diatonic tetrachord, and the latter the perfect consonances of the fourth, the fifth, and the octave, which being the most natural combination of sounds, and therefore the least difficult to express by signs, was doubtless the original. Boethius was of this opinion. As to the first disposition of the strings of this lyre, history informs us that the sounds E F C A upon the bass staff not being sufficient to express every essential sound, three others were added below, D C B thus forming together two conjoined tetrachords, hereafter to be explained.

The lyre, or what is termed by various learned writers the heptachord of Orpheus, appears as in fig. 3, plate VII.; it was tuned to the following ascending intervals, viz. E F G A C D E forming a diatonic tetrachord, a perfect fourth from the E below, and a perfect fifth from the E above. Of the disposition of the strings of this lyre, we read that Olympus passing over the Lichanos, and preluding upon the strings C, A, F, constituting

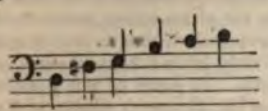
minor and major thirds, originally termed paramese, mese, and parhypate, thus:



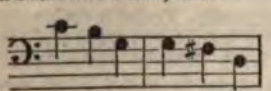
(for the string called trite, by Pythagoras, was not at that time admitted into the system, and which, when introduced, altered the position of the above terms,) he observed the beauty of the effect, and forming a system of sounds by the then novel method of transposing this paramese and mese, and adding a major third below, formed the following scale of notes, thus:



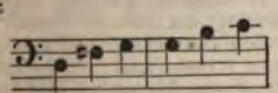
Or thus:



consisting of conjoined tetrachords, combining the thirds peculiar to the lyre of Orpheus, and a species of tetrachord, termed by him enharmonic, not a system of sounds proceeding by quarter tones, unknown to the earliest Greeks, but implying sweetly melodious, composed of a major third and a half tone, thus:

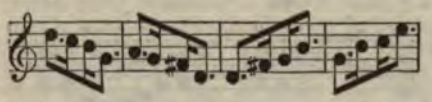


Or thus:

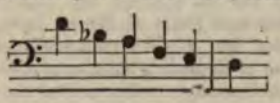


partaking, consequently, of neither of the ancient genera, or systems of sounds described in the scale of Pythagoras, which consisted of diatonic tetrachords, thus: B C D E, E F G A, A B ♭ C D | chromatic tetrachords, thus: B C C ♯ E, E F F ♯ A, A B ♭ B ♮ D, and enharmonic tetrachords, thus: B B × C E, E E × F A | A A × B ♭ D.

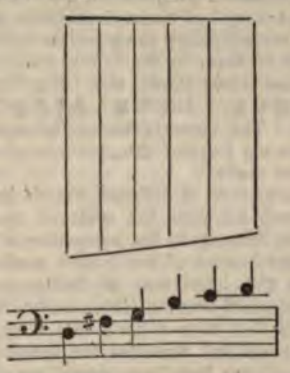
Now every one conversant with the nature of Scottish music will perceive that the following arrangements of sounds, immediately derived from the lyre of Orpheus, and systems of Olympus, are as peculiar to Scottish, as the emphatic note placed upon the unaccented part of the musical measure is peculiar to Polish airs, for example:



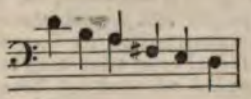
Dr. Burney misrepresents the system of Olympus altogether, not only by placing the lyre in a wrong position, and describing the system by a scale not in existence, but by giving, instead of a major, the melody of a minor triad, thus:



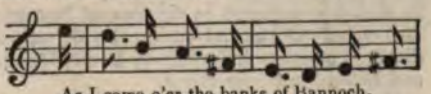
calling it the old Scottish scale in a minor key, but which, on reference to the various collections of Scottish melodies, is, decidedly not the case; that system being only what may be termed a mutilated descending minor scale, characteristic no more of Scottish than of other melodies in minor modes. But what is remarkable, by changing this system into a major one, effected only by inverting the order of sounds, or placing the longest strings of the lyre nearest rather than farthest from the performer, thus:



i. e. ascending instead of descending precisely by the same degrees, then descending by minor thirds, and a tone, thus:

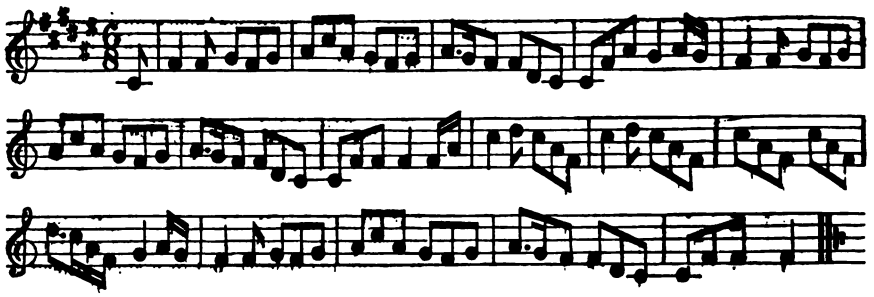


which are the natural consequences of the ascending passages, we obtain the fundamental principles upon which a great number of Scottish melodies are constructed, as for example:



As I came o'er the banks of Bannoch.

which, from their having no fourth nor seventh intervals, in modern modes, and playing in the key of F sharp major, may be performed upon the short levers only of the pianoforte clavier, thus:



'Ye Banks and Braes of Bonny doon,' 'Auld Lang Syne,' &c. See Preston's edition of Thomson's, also of Bremner's Scottish melodies.

Campbell, though well aware of the peculiar style of some of the melodies of his nation, was not sufficiently acquainted with the history and theory of music to account for the whole of them upon fundamental principles. He was, however, the first to observe the powers of the short levers to express many of the melodies of Scotland, as also to express a minor, as well as a major scale, which he terms primary major and minor scales, thus: major F♯ G♯ A♯ C♯ D♯ F♯, minor D♯ F♯ G♯ A♯ C♯ D♯; taking, as usual, the relative minor a third below, or a sixth above the major mode. But, to show more immediately the derivation of these remarkable scales of sound, we will follow the principle of Rousseau, and place them in the tetrachordial order of tones and minor thirds, thus: F♯ D♯ C♯ | C♯ A♯ G♯, | D♯ C♯ A♯ | A♯ G♯ F♯ | D♯. The tunes 'John of Badengone,' and 'Saw ye my Peggie,' &c., are composed upon the latter mode.

These systems of different sounds happening to correspond with the scale of an ancient Sticcado, formerly in the possession of the late Monsieur Arnaud of the French academy, i. e. without the admixture of half-tones, it has been supposed that the Chinese admitted of no intervals less than a tone into their musical system; and that, therefore, the species of Scottish music we have been describing was either derived from the Chinese, or that the Chinese must have composed their music entirely after the manner of the earliest Scottish music. This is erroneous; for it is well known that this singular race of people had divided the octave into twelve semitones, termed lu, from time immemorial. Indeed every thing tends to prove that the Chinese had cultivated and brought to considerable perfection the principles of music long before the Egyptians, from whom the Greeks as well as the Romans derived theirs; a circumstance sufficiently attested from the drawing of the dichord, see plate VII. fig. 4, taken from an obelisk constructed in the time of Sesostris, now among the ruins of Rome, also of various drawings of harps discovered by Bruce, Denon, and Belzoni in Upper Egypt.

Having explained the manner in which musical intervals were first supposed to have been discovered, and of their consequent formation into the earliest systems of sound upon record, it now remains to treat of others not less remarkable. But as all music, in this early stage of history, partook in part of the nature of that adopted in the present day, i. e. of tones and half-tones, major and minor thirds, fourths and fifths, &c. the principles of the modern diatonic scale will be here best explained, that the nature of the modes or systems of sound, so often alluded to by ancient writers, and preserved by St. Ambrose may be properly understood.

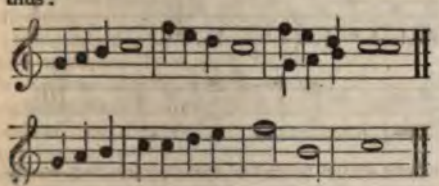
It may appear somewhat paradoxical, but many of the learned in matters of the earliest antiquity are by no means agreed upon the absolute nature of acuteness and gravity of musical sounds; for, whilst some insist that acute ones were produced proceeding to the right, others with equal pertinacity maintain that they were produced to the left of the piano forte clavier, thus, apparently, involving into non-existence no less than one or other of the modern modes, till the scale of Pythagoras was formed and explained, whence philosophers not musicians, and musicians not philosophers, determined that all Greek music was written in minor modes, and that the Greeks knew nothing upon the subject of major modes. In proof of this assertion a quotation from Dr. Gregory's edition of Euclid will suffice. 'As the ideas of acuteness and gravity have in nature no necessary connexion, it has happened accordingly that the most ancient of the Greek writers looked upon grave sounds as high, and acute ones as low; and that this connexion was afterwards changed to the contrary by the less ancient Greeks, and has since prevailed universally. Probably the latter connexion took its rise from the formation of the voice in singing, which Aristides Quintilianus thus describes: γινεται δε η μεν βαρος καταδυν εκ φερομενη τυ πνευματος, η δ' οξυτης εκ τυ ανω ερμενη. Gravity takes place if the breath is carried upwards from the lowest part of the throat, but acuteness if it rushes forth from the higher part.' Beattie, too, upon this subject, very pertinently remarks, that 'to express the local elevation of objects by what we call high notes, and their depression by low or deep notes, has no more propriety in it than any other pun. We call notes high or low with respect to their situation in the written scale. There would be no absurdity in expressing the highest notes by characters placed at the bottom of the musical staff, and the lowest notes by characters placed at the top of it, if custom or accident had to determine. And there is reason to believe that something like this actually obtained in the musical scale of the ancients. At least it is probable that the deepest or gravest

sound was called summa by the Romans, and shriller or acutest ima; which might be owing to the construction of their instruments; the string that sounded the former being perhaps highest in place, and that which sounded the latter lowest. Yet some people would think a song faulty if the word heaven was set to what we call a low note, or the word hell to what we call a high one.' As it will hereafter appear, the explanation given by Pythagoras to the minor system was considered sufficient for that of the major one. This circumstance, together with others immediately connected with it, will tend to show that the ancient Greeks not only admitted of minor and major modes, but of ten others, besides those already described.

It will be recollected that the disposition of the strings, as given to the lyre of Mercury by Boethius, represents the perfect consonances of the fourth, the fifth, and the octave, and that the intermediate sounds D, E, and A, B, were left to the singer intuitively to intonate. These notes correspond to our major diatonic scale, thus: C D E F G A B C, composed of two disjoined tetrachords, differing only from the scale ascribed to Pythagoras, inasmuch as the notes of the disjoined tetrachords ascend by the same degrees the conjoined tetrachords descend, viz. by two tones and one half-tone, thus:

A G F E
E D C B which system, including the note A below (see page 271), corresponds with our descending minor scale, called by the ancients æolian, hereafter to be explained.

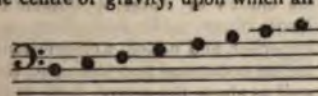
Our system also admits of conjoined tetrachords from the frequent occurrence of the following passages, the ground work of modern, as well as in a measure of ancient harmony, thus:



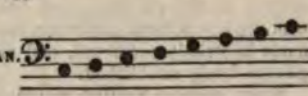
the key note, C, as the sun in the planetary system, forms the centre of gravity, upon which all other sounds revolve; a system, or rather a language, at once the most natural to be conceived, and easily impressed upon the mind of every human being possessing a natural talent; or what is more generally termed an ear for music. To these arrangements of sounds, of which one forms the antecedent, and the other the consequent of a phrase, may be traced those daily melodic productions of amateurs totally ignorant of the principles of composition, the first parts of which prove often, on trial, more interesting than those of experienced musicians.

Viewing, as we do, the principles of melody, solely through the medium of two harmonic combinations of sound, we perceive that the places the half tones occupy in the scale is not a matter of caprice, but established by the Author of nature, which is likewise the case with every other note forming the diatonic major scale; were it otherwise, no two persons, accompanying themselves with the harmony of that scale, could sing the same intervals alike, nor would it be possible for harmony to exist as a science. We therefore recognise the intervals between the third and fourth, and seventh and eighth, as the places only for the half tones of the major, and, reckoning from acute to grave, between the third and fourth, and sixth and seventh intervals of the minor scale, making, in all cases, a series of sounds, rising or falling from any given pitch to its octave, by the diatonic degrees of five tones and two half tones, as in the examples 20 and 56. But such are our narrow notions upon the subject of music that we entertain no ideas of melody independently of harmonic rules; and, in the event of our meeting with these half tones in different situations than those prescribed by the major and minor scales, which is often the case in ancient melodies, we are taught to consider them as merely of an artificial description, or as constituting the art of composition. The ancient Greeks thought differently. Their views upon this, as indeed upon every other subject, were of a more enlarged and sublime description; and as, in all their works, they copied nature, they discovered, from her unerring principles, twelve species of the octave, naming each after different nations, the supposed inventors of them, viz.

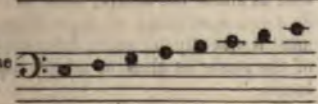
DORIAN.



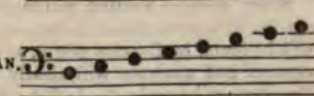
HYPO-DORIAN.



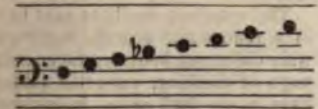
PHRYGIAN, derived from the Orphean lyre.



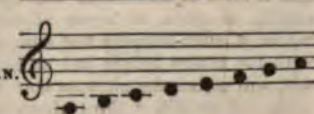
HYPO-PHRYGIAN.



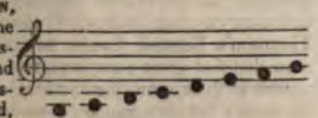
LYDIAN.



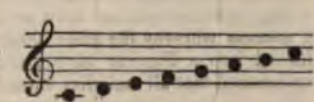
HYPO-LYDIAN.



MIXT-LYDIAN, derived from the union of the ascending and descending systems explained, p. 7.



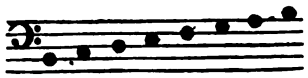
HYPO-MIXT-LYDIAN.



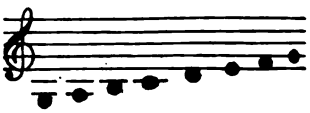
ÆOLIAN.

HYPO-ÆOLIAN.

IONIAN.

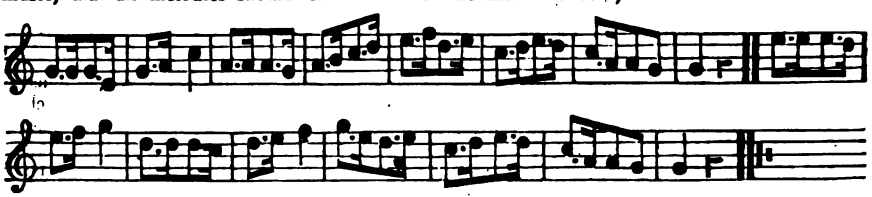


HYPO-IONIAN.

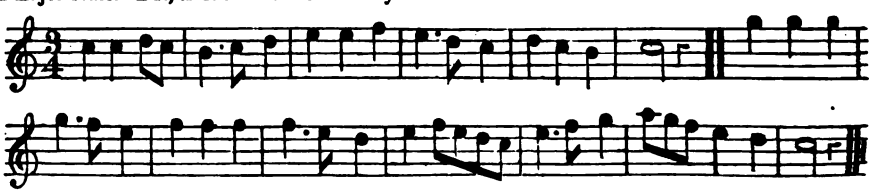


In support of the authenticity of these modes, and, at the same time, for the better understanding of their peculiar melodic powers, as affects the passions of men, we will again avail ourselves of the melodies of Scotland, which, from their decided similarity with the modes in question, must have been written by musicians intimately acquainted with the earliest history of the Greeks, and of the principles of their extraordinary modes. Indeed, such is the nature of these melodies, one would almost be induced to believe that they were known by the Greeks themselves.

It is an axiom, in the composition of modern music, that all melodies should end with the key-note of their harmonic treatment, i.e. if the piece be in D, the ultimate of the melody should also be in D. This is not the case with the generality of Scottish music, for the tune 'Scots wha hae,' as will be seen on reference to its printed editions, ends with the fifth above the harmonic treatment given to it. The notes composing the octave of that fifth being employed in the construction of that song, the half-tones falling between the third and fourth, and sixth and seventh notes, and the melody commencing and ending with its own key-note, instead of the one given to it by its various harmonisers, the melody is written in the mixt-Lydian-mode of the ancient Greeks, thus:



an indubitable proof of its authenticity and peculiar powers; powers not to be expressed invariably ending with the key note of a minor or a major scale. But, to show more effectually the difference between this and the modern or Ionian mode, we will insert our national tune, 'God save the King, thus:

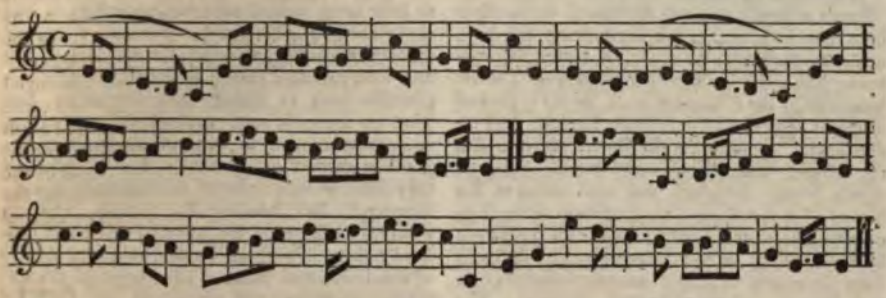


which, if the reader will compare with that of 'Scots wha hae,' and the Grecian scales it will immediately be perceived, that, inasmuch as the ear and mind become satisfied with the key notes of each tune, the unity of each mode is strictly preserved, and their respective powers firmly established.

Every genuine Scottish melody, ending upon a different note to that of its harmonic treatment, will be found of Grecian origin, as the following extracts and analyses will clearly demonstrate. But it must be understood that although in the singing of glees, or pieces of music for four voices, it often happens that one of the singers, with the utmost delight and satisfaction to himself, will sustain the ultimate note as long as his lungs will permit, a third above instead of the key-note of the major or minor mode, it is deemed vulgar and incorrect, and must not be considered a process whereby the piece thus disfigured is turned into a Grecian mode; nor must it be understood that all melodies should be confined within the limits prescribed by each octave; on the contrary, some of them often exceed, whilst others do not reach that extent, partaking, consequently, of the intervals of principal and subordinate, or, to use the technicalities employed by the church of Rome, of authentic and plagal. Hence these modes have been termed perfect, imperfect, and mixed, a circumstance accounting for the occasional appearance of notes below, as well as above the octave, both in Scottish melodies and in subjects of plain chants. The note most frequently sounded determines the nature of the mode or class to which the melody belongs.

The specimen we have next to adduce, will, in a remarkable degree, tend to illustrate the wide difference between the ancient and modern ways of thinking, upon the subject of musical keys, as we shall quote, in support of this hypothesis, no less than Haydn himself. On reference to page 101 of Preston's edition of Thomson's Scottish Songs, vol. iii., it will be seen that that great composer, from the harmonic nature of the specimen given him, as for example Brimner's collection, and to which he was doubtlessly led to conform, considered himself

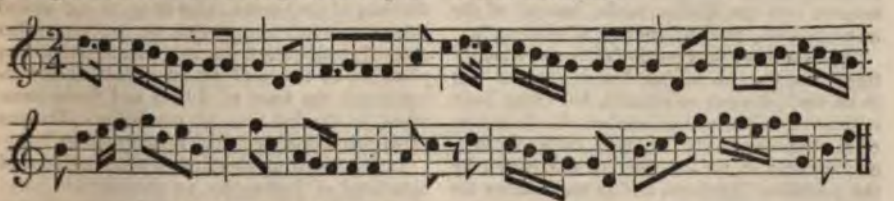
not only obliged to begin the song 'On Ettrick Banks' in one key, but to end it in another of an opposite description; to give, however, something like unity to such incongruity of materials, he splices a symphony to answer the final note of the harmonic treatment! A cure for any doubts we may entertain upon the subject of the existence of Grecian modes, as well as for our predelection in favor of the immutability of the major and minor scales. The tune in question will be found, on reference to the foregoing scales, to be written principally in the Phrygian mode; a mode as remarkable for the singularity and beauty of its intervals, as for rejecting, when employed in the construction of melody, all harmonic support,* the half tones falling between the first and second, and fifth and sixth notes; the lower ones (probably spurious) partaking of the Hypo or subordinate Phrygian, acting as replicates of the Phrygian mode (indicated by slurs), the last three measures occupying the whole extent of the Phrygian mode; indubitable proofs of the original design of the composer not to write in a major or a minor mode, thus:



The Æolian and Hypo-Æolian modes, transposed an octave higher, may express the above sounds, but no idea of a key note could be formed under such nomenclature. The accompaniment given by Haydn to this air begins in B minor and ends in D major. Now the necessity of such anomalous treatment, for neither the major nor minor scale is alone sufficient to express, either melodically or harmonically, the intervals of the above song, proves, beyond all possibility of doubt that such melodies were never intended to be accompanied. Of this description are the following 'O how can my poor heart,' begun in B ♭, and ended in E. 'Tibbie Fowler,' begun in D major and ended in D minor.' 'Farewell ye Dungeons' begun in A and ended in E. 'O poortith cauld' (Kozeluch), begun in E ♭ and ended in C minor.

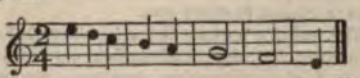
But, if merely to show how far human industry may succeed in giving these airs an accompaniment, it should be founded upon the principles observed in the composition of plain chant (sotto il soggetto) of the Romish church; i. e. partaking only of the intervals peculiar to the modes to which the airs belong. To adduce another instance, in proof of the difference of opinion as to the proper mode of accompanying these airs, we notice that Weber in his arrangement of 'O poortith cauld' has begun as well as ended it in C minor, which, inasmuch as it corresponds in a measure with the Æolian mode, is judicious. Kozeluch, however, thought, or was advised to act differently.

The effect of the accompaniment given by Haydn to the third measure of the air 'O saw ye bonnie lassie' resembles an unexpected shock from a galvanic battery; an effect arising from the violent contortion of two dissimilar modern keys, within the pale of one only mode, which, in this instance is not in F major, with the absolute key of E ♭ introduced and even established in the third measure, a modulation known by every musician to be wrong, but simply in the Dorian mode, thus:



Now this singular melody cannot be in the key of G, because there is no F sharp, nor can it be in C any more than in A minor; the whole of the notes employed in its construction existing in the Dorian scale, and the melody beginning and ending with its own melodic key note. That the reader may judge for himself, as to the propriety of the accompaniment given by Haydn, and of the attempt to express its first four measures in two major modes bearing no affinity to each

* Let any composer harmonise the following passage, viz.



and we predict, that, however ingenious the accompaniment, it will be rejected as an alloy by no means satisfactorily amalgamating with the purity of the melody.

other, the air existing in one mode, we insert the passage alluded to in plate XIV. fig. 2. It were needless to remark upon the utter uselessness of succeeding efforts to accompany these and other similar airs, since, if nature had intended them to receive harmonic support, Haydn could not have failed in his endeavours to give them that uniformity and brilliancy of treatment which characterises all those Scottish melodies of his arrangement, which are proper to receive the principles of harmonic combination.

If we consider the eminently beautiful melody 'Here's a health to those far away,' in no other light than in C major, we must deem the key-note, together with its mode, of trifling importance; but a few moments reflection will show how artfully the composer leads, by his choice of intervals, the ear to anticipate the one and to dwell with pathos upon the other, which is also the mixt-Lydian, the favorite mode, perhaps, of the Scots. Kozeluch was well aware of the beauty of this melody; his treatment of the key-note resembles the purity of a twelfth produced by a generating string: a treatment far different from the enormous mass of accompaniment given to it by some of its pretended admirers. The powers of the mixt-Lydian mode, to express the intervals of the above song, can be doubted by no one. 'The little gems,' 'Och pretty Kate,' 'A highland lad,' 'Saw ye Johnnie coming,' if we may use the expression, are too Grecian not to be noticed. The following airs will also be found to have been constructed independently of harmonic rules, the final note of each indicating its own key-note, and that without the necessity of any formal introduction of the fourth of the key to establish, as in modern composition, its final cadence, viz. 'Our good king,' 'There's my thumb,' 'And O for one and twenty,' &c.

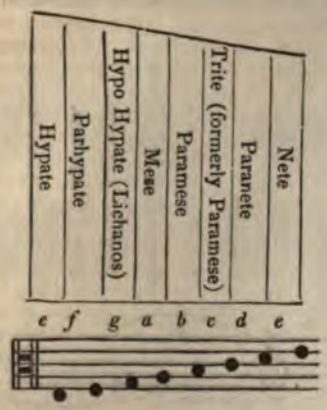
The intelligent musician, in his search for other specimens, will not fail, in his comparison of the melodies with the modes, to observe, occasionally, various spurious notes, introduced either by lovers of ornament ignorant of the principles of the modes, or by the first arrangers of them, or from a desire to accommodate them as much as possible to the rules of modern composition; as, for example, introducing the major seventh into the Æolian mode, instead of the minor seventh, the characteristic of that mode.

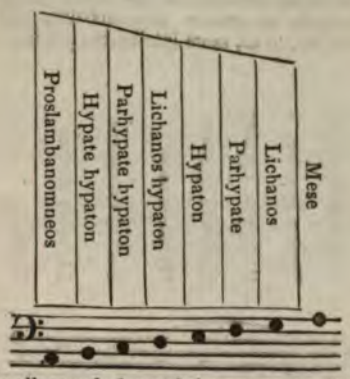
We have been thus particular in our description of the Grecian modes, feeling assured that in no work, ancient or modern, have they been noticed as fundamental principles in the formation of intelligible melody. Indeed, except for their employment in the chanting of the service by the primitive Christians, and as mere scales for the construction of counterpoint, no notice has been taken of them since the introduction of Christianity. Their celebrity previous to that time is known to every one.

The melodic powers of the Ionian and Æolian modes are, for the present, sufficiently explained. Their further discussion, involving the whole science of harmony, must be deferred till we arrive at that period of history in which we are informed of the introduction of Counterpoint. We will, however, merely observe, that as ten out of the twelve modes evidently require no accompaniment, and that as the intervals only of the mixt-Lydian-mode, and such as are employed in the tunes 'A highland lad,' and 'Saw ye Johnnie,' can alone be brought to amalgamate with the principles of modern harmony, it can no longer be a matter of surprise that so much should have been said by the ancient Greek and Roman writers upon the subject of melody, and so little upon that of harmony, according to our acceptation of that word. Nor can it appear extraordinary that, amongst the writings of the ancients, passages should have been thought applicable both to melody and harmony. For what are intervals employed in melody, requiring no accompaniment to support, but entirely dependent upon the key-note? And in what do they differ when employed in simultaneous combination? But whether the Greeks, who so wisely discriminated the melodic value and distinct powers of so many modes, as independently of the diminished fifth, to have rejected the following arrangement of the octave, viz. B C D E F G A B from the number of their authentic modes, could really know nothing of the harmonic powers of the Æolian and Ionian modes, together with the ascending major seventh, given by us to the former, he must be a first rate classic as well as a thorough musician to prove. It would, however, be desirable, that all interested in the science of music should peruse the ancient writers upon the subject, keeping in view the distinct powers of the modes, separating, at the same time, the fundamental, or rather musical principles of declamation, as practised by the ancients; an art which, as it was totally of a different nature from the Dithyrambic species, formed the rock upon which the majority of writers have split.

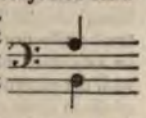
Such is the scantiness of the materials afforded the musical historian, that with the exception of some extraordinary tales upon the powers and effects of the different modes, and of the adoption of other divisions of sound than those already described, principally to define the various inflections of the human voice in speaking, and to bring, as much as possible, to perfection the rules of declamation, we have but little of importance, or rather of an intelligible nature, to notice till the time of Euclid and Pythagoras, when, for the first time, all musical sounds were explained by mathematical demonstration.

In the following description of the celebrated octachord of Pythagoras, so often alluded to in the writings of the ancients, the reader will not fail to recognise the old Phrygian mode, derived from the ancient lyre of Orpheus, and therefore doubtlessly sung ages before the time of Pythagoras. It is, however, remarkable as showing the adoption of a new term to express the string originally designated Paramese, thus:





Pythagoras had established certain rules to find out the mathematical proportions of the consonances, when accidentally observing, as he passed a blacksmith's shop, that four hammers striking upon an anvil produced consonant sounds, as tuning forks would do if of proper sizes, he had them slung, and as they produced, when struck, precisely the same sound they emitted when in contact with the anvil, he had them weighed, when finding the smallest was six, the next eight, the third nine, and the largest twelve pounds, corresponding to the proportions he had previously adjudged between the consonances, he concluded that the octave should be divided into twelve semitones. Pythagoras also, we relate the events as they are told us, perceiving that the extreme sounds of two conjoined tetrachords produced a dissonance, viz. added a note below, calling it proslambano menos, implying an added string, i.e. A, the first space upon the bass staff, thus:

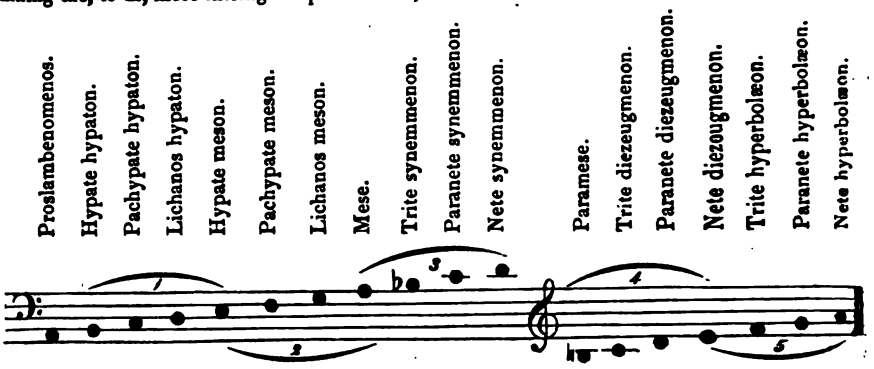


As all sounds beyond the octave, in modern harmony, are replicates of the primary one, the lyre, simple as it appears, was capable of expressing every essential sound. No wonder, then, that it should have been held, by the ancient Greeks, in such esteem. But, as it did not reach the whole extent of the human voice another octave was added. This circumstance gave rise to the term flat, as the alteration of the diatonic into the chromatic tetrachord introduced that of sharp, thus: E F F ♯ A, consisting of a half-tone, a minor semitone, and a minor third; the term flat arose from the necessity of making a half-tone from the mese A, the fifth line bass staff, thus: A B ♭ C D, to form a diatonic tetrachord, and a perfect fourth from the F below, thus: F B ♭. The system of conjoining tetrachords, of which the fourth was always a perfect one, formed, together with the new enharmonic or quarter-tone division of sound, the sum and substance of the Greek immutable system, the double octave from A, the first space bass-staff to A, the second of the treble staff; thus, as divided into five hexachords by Forkell, viz.

The Diatonic, Chromatic, Enharmonic Scale of the ancients.

28	Nete hyperbolæon (second space treble staff)	*a*
27	Paranete hyperbolæon diatonos	*g*
26	Paranete hyperbolæon chromatice	*g* flat or F sharp.
25	Paranete hyperbolæon enharmonios	*f*
24	Trite hyperbolæon	*e* × enharm. F ♭.
23	Nete diezeugmenon	*e*
22	Paranete diezeugmenon diatonos	*d*
21	Paranete diezeugmenon chromatice	*d* flat *c* sharp
20	Paranete diezeugmenon enharmonios	*c*
19	Trite diezeugmenon	*b* × enharm. C ♭.
18	Paramese (space above the bass staff)	*b* natural.
17	Nete synemmenon (space below the treble staff)	*d*
16	Paranete synemmenon diatonos	*c*
15	Paranete synemmenon chromatice	*c* flat *b* natural.
14	Paranete synemmenon enharmonios	*b* flat.
13	Trite synemmenon	*a* × enharm. *b* flat.
12	Mese	*a*
11	Lichanos meson diatonos	*g*
10	Lichanos meson chromatice	*g* flat *f* sharp.
9	Lichanos meson enharmonies	*f*
8	Parhypale meson	*e* × enharm. *f* flat:
7	Hypate meson	*e*
6	Lichanos hypaton diatonos	*d*
5	Lichanos hypaton chromatice	*d* flat *c* sharp.
4	Lichanos hypaton enharmonios	*c*
3	Parhypale hypaton	*b* × enharm. *c* flat.
2	Hypate hypaton	*b* natural.
1	Proslambanomenos (first space bass staff)	A

Excluding from this extraordinary system the enharmonic or quarter tone division, and retaining the, to us, more intelligible portion of it, we obtain the celebrated system of Aristoxenus, thus:



The inversion of this order of sounds produces the modern major system, thus:

Aristoxenus, considering the ear the sole arbiter of musical intervals, was opposed to Pythagoras, who, on the contrary, thought the ear no more capable of deciding upon their nature than the eye of forming a circle without compasses. Ptolemy, endeavouring to steer a middle course, did but little service to the cause he espoused. There were other chiefs of sects, as Epigonus, Damon, &c.: the former was the inventor of an instrument called after him the Epigonium, mounted with forty strings.

Such was the state of the fundamental scale of music up to the time of Guido Aretinus, who flourished in the eleventh century, when the principles of music underwent a thorough reformation. Of the most celebrated writers of the ancients, Aristoxenus, Euclid, Nichomacus, Alypius, Martianus, Capella, Guadentius, Bacchius the elder, Aristides, and Ptolemy, are the principal; editions of whose works have been given to the public with notes by Meibomius and Dr. Wallis.

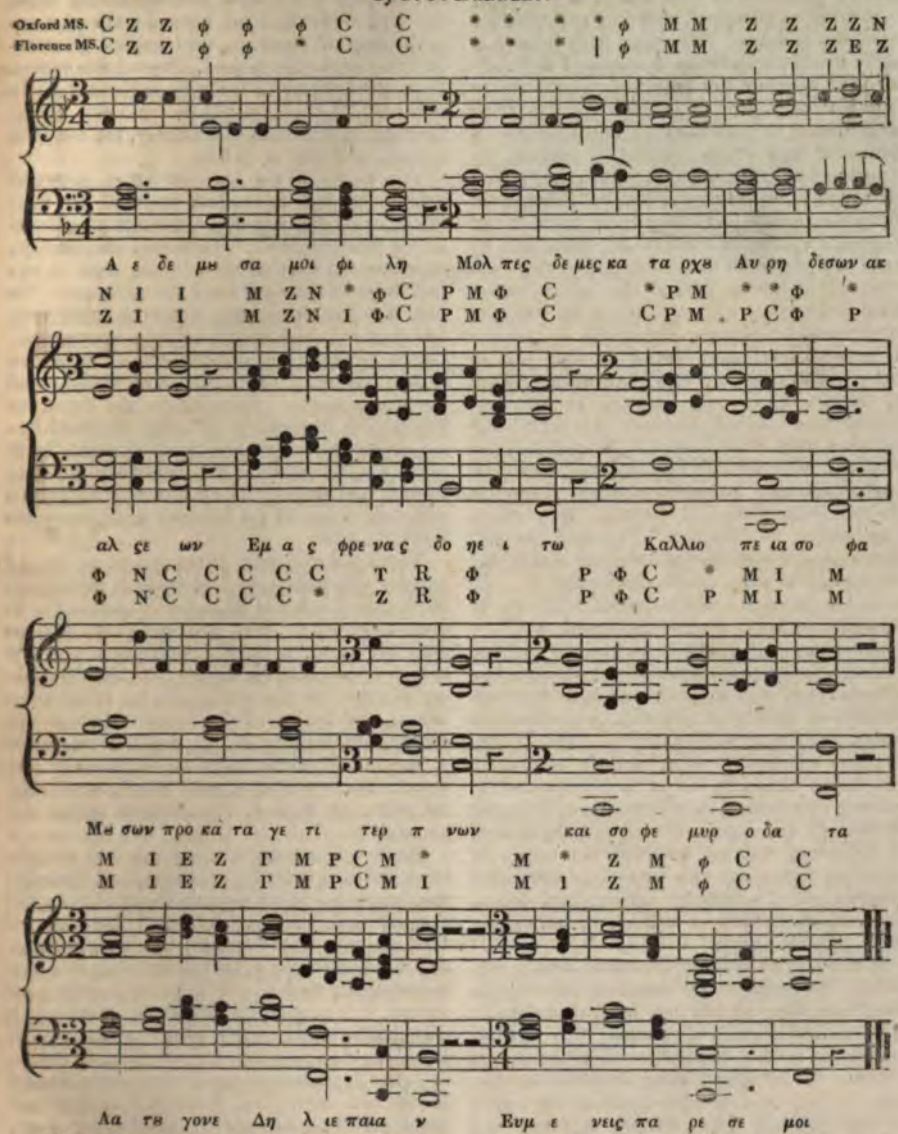
Of the various specimens of ancient Greek music, mentioned by different writers, but four, in their supposed original notation, have been transmitted to us. For their elucidation we are chiefly indebted to the exertions of Monsieur Burette. Three of them are hymns addressed to Calliope, Apollo, and Nemesis; they were found among the papers of the celebrated archbishop Usher, in Ireland. As the musical note, generally speaking, is set to each syllable of the poetry, they are termed Syllabic compositions: not melismatic, a species of music said, though incorrectly, to have been unknown to the ancient Greeks. The fourth specimen was found in a monastery near Messina by Kircher, the words consisting of the first eight verses of the first Pythic Ode by Pindar; the musical characters corresponding to those attributed by Alypius to the Lydian mode, which Plato tells us was so peculiarly adapted to inspire tender affections, that he forbad the use of it in his republic.

As a specimen of the intervals with which the ancient melodies are said to have been composed, we select Dr. Burney's version of Burette's translation of the hymn to Calliope. See plate XIII. fig. 4. We are aware, however, that, although originally written in the Lydian mode, the tender affections of the reader will be the last to be awakened in its performance. No two notes, with the exception of the seventh line, connecting so as to form even the shadow of a musical idea throughout the piece, a circumstance quite sufficient to disprove its genuineness.

The intervals chosen for the translation of this hymn being of Phrygian instead of the Lydian import, it may well have been cited in disproof or ridicule of the boasted virtues of Grecian music, as also of its utter impracticability of receiving harmonic support.

Following, however, the majority of opinions expressed upon the subject of the intervals as they constitute the different Grecian modes, and viewing their varied powers through the medium of nature rather than of speculations of authors determined to make all Greek music of an unintelligible nature, we are enabled to present our readers with a translation of this once celebrated hymn in a shape both genuine and satisfactory. The Lydian powers maintaining still their influence over mankind, all the quotations and hypotheses, entertained by a variety of writers, in proof that Grecian music was of a nature totally opposite from that of the present day, are overturned.

The Hymn to Calliope, translated from the original Greek characters and harmonised by J. F. Dannely.



Whilst many critics, supported by various authors of reputation, will be disposed to doubt the genuineness of this specimen, together with its harmonic treatment, there will not be found wanting advocates backed by Doni, Zarlino, Tevo, Eximenes, Stillingfleet, and a host of other equally celebrated authors, to support it. Besides these authorities, we may cite in support of this translation the admissions of Vadre Martine; Burette and Kircher, who, though foremost to deny to the ancient Greeks the perfect knowledge of harmony, have, together, condescendingly admitted, that they did employ occasionally the consonances of the fourth, the fifth, the third, and the octave. To remove any doubt arising in the mind of the reader, as to the musical import of the characters, were easily effected by analogy. For instance, an antiquary, succeeding so far in his attempt to decypher the hieroglyphics of Cleopatra's needle as to make out a sentiment at once beautiful and complete in all its parts, thinks himself justified in using the same means for the translation of the remainder, and no doubt arises in the mind of any one as to the genuineness of the effects produced, or of the fitness of the means employed, if they enable the antiquary to decypher the whole of those hieroglyphics with equal consistency and truth. Paley's description of the stone found upon the desert aptly serves to illustrate the justness of this conclusion.

That instinct which teaches us to intonate the intervals of our diatonic major scale with justness, without the help of mathematical theorems,

must have been known to the ancient Greeks from the perfection of their organs, and happier disposition, as compared with ours to receive the principles of music. Why then deny them that which teaches individuals, ignorant of the rudiments of harmony, but possessing a good ear, to sing a third above, or a sixth below a given subject, sung or performed by instruments? A chorus of forty voices, singing in octaves, accompanied by instruments playing in unison with the voices, could not always have been considered grateful or satisfactory either to the mind or ear. Fugues, a species of artful music, considered by some the perfection of modern music, and other compositions of the present day, which, rather than as the efforts of men, inspired by genius to invent melodic phrases, one would be induced to believe, from their similarity, were cast in one common mould, would have been rejected by the ancient Greeks, because, in all their works, they copied nature. As their compositions were characterised by a moderate use of dissonances, we may conclude that all subordinate parts were intended intimately to support the principal design or melody. The voices employed in the chorusses of the ancients were tempered one with another, forming that happy assemblage of sweet sounds at all times insuring perfect expression. Inconcinnous intervals or dissonances, being an embellishment of nature whereby she gives beauty to the concinnous ones, or consonances, they must always have been employed, since, without such means, in the composition of melody or harmony, no continuity of design could have been produced. The Greeks therefore employing such intervals as seventh and fourth considered them as dissonances, requiring, as in modern theory, ultimately to ascend or descend one degree, to complete the melody or harmony, without knowing the cause, or troubling themselves with reasonings upon such progressions of sounds by mathematical deductions, which, in musical matters, are not exactly to be depended upon.

It will undoubtedly appear extraordinary that, during the number of centuries the Greeks flourished, they should not have discovered a more simple method of notation than the one explained in the description of their musical chords. These names, being found too troublesome for general use, were succeeded by letters of the alphabet, some turning upwards, and others side-ways, some cut in halves, &c., thus:

Vocal.	Instrumental.	Vocal.	Instrumental.
7	⊢	Z	⊏
⊤	T	Γ	N
R	L	Ʊ	Z
Φ	Fi	E	λ
C	C	⊖	η
P	⊂	⊖	η
M	⊓	ɹ	λ
I	⊲	M	⊓
Θ	V	I	⊲

As all analogy in the modes, we are told, was out of the question, these signs were augmented to the number of 1860, a circumstance fully warranting Plato's observation that it required three years hard study to know the musical characters and to play a tolerable accompaniment upon the lyre. The Romans followed this plan up to the time of Boethius, who made a great reduction, employing instead, fifteen Latin letters. Pope St. Gregory in his turn reduced them to eight, viz. A B C D E F G H, the letter H expressing, as at present in Germany, the sound B natural, as B that of B flat.

The music of the ancients being governed entirely by the rhythmical structure of their words, or of the long and short syllables composing them, thus: – ∪. The Greeks were perhaps unacquainted with the art of using signs to express both variety and duration of sound. To suit, therefore, the precise nature of these long and short syllables, we are obliged, in our translations of the ancient specimens of music, to change the time alternately into Binary and Ternary measure. Nevertheless the hymn to Calliope is susceptible of being expressed according to the rules of modern rhythm. As it will serve to show more immediately in what consists the difference of the two methods, we insert the hymn in the modern form, see plate XIII. fig. 5.

The more extended phraseology, in certain parts of this arrangement, reminds us strongly of the nature of some of Beethoven's movements in three-eight time. But, associating the sounds with the word, it must be confessed that the system of changing the time, to suit the rhythmical structure of the word, adds to, rather than lessens, the beauty of the hymn. Indeed the oftener it is heard in the original form, the more it will be found to resist the attention of the hearer. The sevenths, marked thus †, are worthy the genius of Mozart; the asterisks denote the cæsuras.

Much was expected, upon this and various other subjects, from the manuscript of Philodemus presented to his majesty George IV. by the king of Naples, discovered among the ruins of Herculaneum and Pompeii, but unfortunately destroyed in the process of unrolling. From the contents, however, of a few fragments preserved, it is considered to have been merely a dissertation upon music after the manner of Boethius. Whether future excavations will bring to light other manuscripts of the ancients, buried for the last 1900 years, is a matter of great importance to the science we treat upon, since without them, or others from different sources, little can be known for certain as to the degree of perfection to which the Greeks and Romans brought their music.

But if the Greeks were deficient in the art of notation, more particularly of instrumental music, it must be allowed that their melopœia comprised every thing that could be desired in respect to the invention of melody in its application to poetry. Of the extraordinary effect upon the minds and passions of men accustomed to sounds produced from musical instruments, particularly when accompanying sentiments of the noblest description, and sung by the wisest philosophers, poets, and musicians of the first order, some of them may be too easily imagined to be doubted.

ic, in the time of Aristides Quintilianus, have formed a considerable branch of education, since it was divided into the following branches, viz,

- Music
  - Contemplative
    - Natural
      - Physical
      - Arithmetical
    - Artificial
      - Harmonical
      - Rhythmical
      - Metrical
        - Sounds
        - Intervals
        - Systems
        - Species
        - Modes
        - Mutations
        - Melopæia
  - Active
    - Practical
      - Melopæia
      - Rhythmical
      - Poetical
    - Enunciative
      - Organical
      - Odical
      - Hypocritical

music of the ancient Romans being con- principally to declamation and dancing, er saltation, they added nothing to the les of Grecian music, but merely translated eek authors upon the subject; and, as the les of their declamation were expressed entuation, accents were adopted for its n. Thus, when words were set to music, mans as well as the Greeks had only to n to the quantity, and to place an accent each syllable. These accents, therefore, ined the degree of acuteness as well of the duration of sounds employed inging or recitation of their verses. Ne- ess the actor had the privilege of declaim- re or less slowly; since Cicero, writing to , observes, that, relaxing in the time of lamation, he obliged the person who ac- nied him to relax also in the time of the of his flute. Kircher pretends to have ed many compositions of Horace and , and to have given a key to the transla- them, but neither one nor the other are o be relied upon. Of the genuineness of ody, 'Jam satis terris,' however, we are by many learned writers in matters of iterature antiquity.

most ancient instrument upon record is nese hiscen, or hinen, in form of an egg with five holes, without reckoning the hure: three at the bottom and two at . Vere Amiot traces this instrument 3000 efore the Christian era, i. e. before the f Koang-ty. Other ancient instruments e *testudo*, having the base made of the a tortoise, and the sides occasionally of orns, the origin of the lute, see plate VII. The *nebel*, an ancient Hebrew instrument with gut, supposed by Luther to be the of twelve or more strings, plate VII. fig. lebrew *harp*, figs. 7 and 8; a triangular ken from a monument in the city of s, fig. 9.

tripod or Pythagorean lyre, representing nds of the three modes in which the ome called trimeres was sung, is shown II. fig. 10, viz. the Dorian, the Phrygian Lydian. The performer played upon trument seated, turning it, according to the mode required, with his foot, playing with the fingers of his left hand, and with a plectrum in the right. The plectrum was made of metal or other hard substances, as a dog's tooth, a jaw bone, or the horn of a goat. To these lyres succeeded others of the same species, but more sonorous from their forms, see plate VIII. figs. 1, 2, the latter being taken from a Sarcophagus, now in the British Museum.

An antique lyre, fig. 3. The chelys, the origin of the guitar, fig. 4.

The ancient lyre preserved in the British Museum clearly indicates, by its windlass, the manner with which the strings of this ancient instrument were tightened and slackened; the lyre, fig. 6, shows that short as well as long strings were used to ensure more effectually the various degrees of the octave. The levers attached to the lyre with a plectrum, fig. 5, could have been used for no other purpose than to wind the strings round the windlass.

These instruments were played with the points of the fingers. The word psallere signifying to touch with the extremity of the fingers; hence the psalterion, an instrument of thirty strings tuned in octaves, resembling the natural voices of men and boys blended together, termed magadizing. The kinner, upon which David played before Saul, in the shape of the Greek delta, is thus exhibited by Kircher after a specimen in the Vatican, plate VIII. fig. 7.

To these succeeded others provided with scrolls and necks, as the Egyptian dichord, to tighten or slacken the strings. The violin, supposed of modern invention, appears to have been common even in the time of Caligula, and was played with a bow, mounted with horse hair. The neghinoth of the Hebrews, mounted with three strings only, has also been supposed of the same species. The form of the violin appears upon some medals of Nero, and in Argolis's account of the ancient games of the circus, mounted with four strings and a bridge to elevate them for the bow. In the paintings of Philostratus, Orpheus is represented holding a bow in the right hand, and a violin in the left. The appearance of this instrument upon ancient marbles is of rare occurrence, probably from its less picturesque form as compared with the lyre.

Although the little figure of Apollo playing upon a kind of violin with something like a bow, and supposed by Addison and others to be an antique, may have been disproved by Winkleman, it does not follow that the violin should have been unknown to the ancients; on the contrary the nature of the hurdy-gurdy, the sambuca or barbiton of the ancient Greeks, sufficiently attests the previous adoption of the violin or some such instrument: the bow was drawn by the hand across the string long before the friction of a wheel was fixed upon for that purpose. The ancient violin differed from the modern one only in the neck, which was much shorter.

The flute, by having been ascribed to Apollo, Pallas, Mercury, and Pan, sufficiently vindicates its own antiquity. Hyagnis, 1500 years before Christ, is named as the first performer of celebrity. Athenæus gives to Numidius the invention of the flute of one tube; to Silenus that of several tubes; to Marsyas the flute with a reed. Phrygian flutes, as the Monaulos of Egypt, were curved and intonated with a reed, as the modern hautboy, see fig. 8, plate VIII. The ancients kept their reeds in boxes called glossocomeia, reed or tongue boxes. Another species of Egyptian flute, taken from a dancing figure found at Eschmin, is seen in fig. 9. The avena, made of an oaten straw, was blown at the top. The aolamus pastoralis composed of reeds united together, fig. 10, plate VIII.; to this a horn was sometimes attached, as in fig. 11, in the shape of a lituus. The fistula Panis composed of reeds tied together as in plate IX., fig. 1. Foster in his voyage round the world found an instrument of this kind in the Friendly Islands. The Chinese have a similar one called the Ching. See CHING. Various ancient flutes are shown, plate IX. figs. 2, 3, 4, 5, 6, 7. Fragments of flutes formed of bones have been also discovered in the ashes of Herculaneum, and preserved in the vatican, and are represented in figs. 9, 10, plate IX.

When the process of forming artificial tubes was known, flutes were made of box wood, ivory, copper, and even gold. The most ancient flute of the Hebrews was the agada, the form shown plate IX. fig. 11. This instrument, being used at ceremonies of a different nature from that in which the lyre was employed, was made so with a view of imitating the various compasses of the human voice, varying in size as shrill or deep sounds were required. Wind instruments possessing deep tones, increasing in size towards the bottom, were termed horns, as the seven mentioned in Joshua, made of a bull or ram's horn. A species of lituus made of metal is shown plate IX. fig. 12, another of the monaulos, derived probably from the Chinese kiend, shown fig. 1, plate X.. The cornu ventorium, the origin of the serpent, made of metal, was of nearly the modern form, see plate X. fig. 2. A curious specimen of a horn with two mouthpieces, as if to be blown by two persons, is seen fig. 3. Bass flutes, or kinds of bassoons, the two latter with one key each, are shown in figs. 4, 5, 6, plate X. The singular instrument fig. 7 is supposed to have been a flute. Dr. Burney considers the instrument fig. 8, to have been the clangor tubarum, used by Alexander the Great. This as well as the next specimen, fig. 9, was dug from the ruins of Herculaneum, and is made of ivory, much in appearance of an organ pipe. The projections or keys, originally termed bombykas, upon these tubes, were moveable, to alter their diapason or extent, as shown in figs. 10 and 11. Figs. 1, 2, 3, plate XI., are other flutes of the ancients.

From instruments having no such projections, different degrees of sound were produced by the motion of the mouth, as from the trumpet. The sackbut, of the trumpet species, was also found among the ruins of Herculaneum or Pompeii, the lower part made of bronze, the upper part and mouth-piece of solid gold. In quality of tone it has not been equalled by any of modern manufacture. This instrument is in the possession of his present majesty. A lituus or octave trumpet, late in the possession of Sir Joseph Banks, is shown in fig. 4, plate XI.

At the Olympic games the trumpet-players expressed an excess of joy, when they found their exertions had neither rent their cheeks nor burst their blood-vessels; some idea may be formed of the noisy and vociferous style of music which then pleased.

On the precise nature of the ancient double flutes, derived from the Egyptians, and of which varieties specimens are shown in figs. 5, 6, 7, 8, 9, 10, 11, 12, authors are by no means agreed. The symphony, a concert resulting from two equal flutes, was composed of unisons, when the fingers of each hand stopped the same holes. From expressions annexed to the titles of some of Terence's comedies, we learn that they were represented to the sound of equal and unequal flutes, right and left. The Andria was accompanied with equal flutes right and left; the Self-tormentor with unequal flutes. The performer played upon two flutes at the same time, and placed round his mouth a bandage, that the cheeks might not protrude, and for the better management of the breath. The right flute with two bores produced low sounds, the left had several bores and produced high sounds. Double flutes, the tubes of which were of different lengths, as seen in figs. 13, 14, if intonated together would produce sounds of different pitch. Some authors consider the larger tube to act as the drone of a bagpipe, others that both tubes were used to represent together the sounds of two different modes, thus: E F G A B C D E / C D E F G A B C producing harmonic combinations of thirds. But, as the subject of the piece performed often required a change of mode, others consider that these tubes were sounded alternately, and that they were joined together, because that was the most expeditious way of accompanying the actor or singer.

The traverse or German flute was known to the ancients. The flute used by Ismenias, a celebrated Theban musician, cost at Corinth three talents, or £581 5*s*. The ancients were not less extravagant in gratifying the ministers of their pleasures than ourselves. Amœbæus, a harper, was paid an Attic talent, or £193 15*s*. per day for his performances. Roscius had 500 sestertia, or £4036 9*s*. 2*d*. sterling a-year. The beautiful Lamia, who was taken captive by Demetrius, when he vanquished Ptolemy Soter, and

who captivated her conqueror, with many other female musicians, are recorded by ancient authors in terms of admiration. The philosophers of Greece were not inattentive to the theory of music. This science became the source of various sects, and of much diversity of opinion. The founders of the most distinguished sects were Pythagoras and Aristoxenus. Clonas is named as the first composer of celebrity for the flute. A bronze mouth-piece from Herculaneum is shown in fig. 15; the organ pneumaticum, fig. 16; the tibia utricularis, fig. 17.

Other species of instruments, common to the ancients, were of a rhythmical nature, being used to mark the cadence and rhythmical divisions of their dances, verses, and of airs accompanying them, as the *tabret*, the origin of the tambourine; the *sistrum*, plate XII. figs. 1 and 2; the *ludere catenas*, fig. 3; the *cymbals*, fig. 4; the drum, &c. From the enormous sizes of the ancient theatres, Vitruvius informs us, that vases, corresponding to the degrees of the octave, were placed in different parts of them, see plate XII. fig. 5; and to which the voice of the singer was occasionally directed for assistance in the distribution of its tones. This accounts for the necessity of adopting, on certain occasions double flutes, such as shown in fig. 11, instead of single ones, also of the performer's wearing bandages (fig. 12); quantity, not quality, of tone, being the principal object of their care. History informs us of several individuals who have died in their efforts to display their powers on their respective instruments.

The walls of Herculaneum and Pompeii abound with beautiful forms of organs, and we often meet with descriptions of them in the writings of the ancients, as the clepsydra, &c. They were, however, reserved for the cabinets of the curious, and not generally introduced into churches till the beginning of the ninth century, when they were of the form of fig. 6, the bellows resembling those used in blowing fires. In the Anthologia, ascribed to the emperor Julian, who flourished in the year 364, is seen the following account of an organ:—'I see reeds of a new species, the growth of another, a brazen soil, such as are not agitated by the wind, but by a blast from below their roots, whilst a robust mortal, running with swift fingers over the concordant levers, makes them, as they swiftly dance, emit melodious sounds.' In the gardens of Mathei, in Rome, a figure in bas-relief is seen of a cabinet organ, of which the bellows are, in appearance, like those before described, blown by a man behind the cabinet, and the clavier played by a woman. In the epistle of Dardanus, ascribed to Hieronymus, an organ is represented with twelve pairs of bellows, the wind-chest formed of the skins of two elephants, the noise from which might be heard at the distance of 1000 paces; Mersennes considers it a species of bag-pipe, and to be the origin of the organ. It does not appear, however, that any of the ancient organs comprised more than one set of pipes. Fig. 7 is an ancient species of triangle; fig. 8 the horn mentioned by Virgil; fig. 9 a vertical fiddle; fig. 10 an Egyptian lyre; fig. 13 an ancient guitar.

By comparing the accounts of Diodorus Siculus and of Plato, says the ingenious Mr. Morison, there is reason to suppose, that in very ancient times the study of music in Egypt was confined to the priesthood, who used it only on religious and solemn occasions; that, as well as sculpture, it was circumscribed by law; that it was esteemed sacred, and forbidden to be employed on light or common occasions; and that innovation in it was prohibited: but what the style or relative excellence of this very ancient music was, there are no traces by which we can form an accurate judgment. After the reigns of the Pharaohs, the Egyptians fell by turns under the dominion of the Ethiopians, the Persians, the Greeks, and the Romans. By such revolutions, the manners and amusements of the people, as well as their form of government, must have been changed. In the age of the Ptolemies the musical games and contests instituted by those monarchs were of Greek origin, and the musicians who performed were chiefly Greeks.

'The curious relict of antiquity called the Dichord deserves to be described because it affords better evidence than, on the subject of ancient music, is usually to be met with, that the Egyptians, at so very early a period of their history, had advanced to a considerable degree of excellence in the cultivation of the arts. By means of its neck, this instrument was capable, with only two strings, of producing a great number of notes. These two strings, if tuned fourths to each other, would furnish that series of sounds called by the ancients heptachords, which consists of a conjunct tetrachord as B, C, D, E: E, F, G, A; if tuned fifths, they would produce an octave, or two disjunct tetrachords. The calascione is tuned in this last manner. The annals of no other nation than Egypt, for many ages after the period of the obelisk at Heliopolis, exhibit the vestige of any contrivance to shorten strings during the performance by a neck or finger-board. Father Montfaucon observes, that after examining 500 ancient lyres, harps, and citharas, he could discover no such thing.'

'The Hermes of the Egyptians,' continues Mr. Morison, 'surnamed Trismegistus, or thrice illustrious, who was, according to Sir Isaac Newton, the secretary of Osiris, is celebrated as the inventor of music. No one person ought strictly to be called the inventor of an art which seems to be natural to, and coeval with, the human species; but the Egyptian Mercury is without doubt entitled to the praise of having made striking improvements in music, as well as of having advanced in various respects the civilisation of the people, whose government was chiefly committed to his charge.'

'The monaulos, or single flute, called by the Egyptians photinx, was probably one of the most ancient instruments used either by them or any other nation. From various remains of ancient sculpture, it appears to have been shaped like a bull's horn, and was at first, it may be supposed, no other than the horn itself. Before the invention of flutes, as no other instruments except those of percussion were known, music must have been little more than metrical. When the art of refining and lengthening sounds was discovered,

the power of music over mankind, from the agreeable surprise occasioned by soft and extended notes, was probably irresistible. At a time when all the rest of the world was involved in savage ignorance, the Egyptians were possessed of musical instruments capable of much variety and expression. Of this the astonishing remains of the city of Thebes, still subsisting, afford ample evidence. In a letter from Mr. Bruce, ingrossed in Dr. Burney's History of Music, there is a particular description of the Theban harp, an instrument of extensive compass, accompanied with a drawing taken from the ruins of an ancient sepulchre at Thebes, supposed by Mr. Bruce to be that of the father of Sesostris.

'On the subject of this harp, Mr. Bruce makes the following striking observation: 'It overturns all the accounts of the earliest state of ancient music and instruments in Egypt, and is altogether, in its form, ornaments, and compass, an incontestable proof, stronger than a thousand Greek quotations, that geometry, drawing, mechanics, and music, were at the greatest perfection when this harp was made.'

'It cannot be doubted, according to Mr. Bruce, that during the reigns of the Ptolemies music must have been much cultivated. The father of Cleopatra, the last of that race, derived his title of auletes, or fluteplayer, from his excessive attachment to the flute. Like Nero, he used to array himself in the dress of a tibicen, and exhibit his performance in the public musical contests.

'The Scriptures afford almost the only materials from which any knowledge of Hebrew music can be drawn. Moses, who led the Israelites out of Egypt, was educated by Pharaoh's daughter in all the literature and elegant arts of that country. The taste and style of Egyytian music would therefore be infused into that of the Hebrews. Music appears to have been interwoven through the whole tissue of religious ceremony in Palestine. The priesthood seem to have been musicians hereditarily and by office. The prophets accompanied their inspired effusions with music; and every prophet seems to have been accompanied by a musical instrument. Music, vocal and instrumental, constituted a great part of the funeral ceremonies of the Jews. The number of flute-players in the processions amounted sometimes to several hundreds, and the attendance of the guests continued frequently for thirty days.' *Josephus*, l. 3, c. 9.

The Hebrew language abounds with consonants, and has so few vowels that in the original alphabet they had no characters. Their instruments of music were chiefly those of percussion; so that, both on account of the language and the instruments, the music must have been coarse and noisy. The vast numbers of performers, too, whom they collected together, could, with such language and such instruments, produce nothing but clamor and jargon. Josephus says, there were 200,000 musicians at the dedication of Solomon's temple.

Cadmus, with the Phœnician colony which he led into Greece, imported at the same time various arts into that country. That chief discovered gold in Thrace and copper at Thebes, where it is still termed cadmia. Of these materials, and of iron, they formed instruments of war. These they struck against each other during their dances at sacrifices, by which they first obtained the idea of instrumental music. Such is the origin of that species of music in Greece, produced by instruments of percussion. The invention of wind instruments is attributed to Minerva; and to the Grecian Mercury is assigned the honor of many discoveries probably due to the Egyptian Hermes, particularly the invention of stringed instruments.

It has been imagined that the occupation of the first poets and musicians of Greece resembled that of the Celtic and German Bards, and the Scalds of Iceland and Scandinavia. They sang their poems in the streets of cities and palaces of princes. They were treated with high respect, and regarded as inspired. Such was the employment of Homer. His poems exhibit the most authentic picture of the times of which he wrote, and in which he lived. Music is always named throughout the Iliad and Odyssey with rapture. The instruments most frequently named are the lyre, the flute, and the syrinx. The trumpet appears not to have been known at the siege of Troy. From the time of Homer till that of Sappho only a few fragments remain of the works of those poets and musicians who flourished between those periods. During the century which elapsed between Sappho and Anacreon, no literary productions are preserved entire. From Anacreon to Pindar there is another chasm of nearly a century. Subsequent to this time, the works still extant of Æschylus, Sophocles, Euripides, Plato, Aristotle, Aristoxenus, Euclid, Theocritus, Callimachus, Polybius, &c., produced all within less than 300 years, distinguished this illustrious period, as that in which the whole powers of genius seem to have been exerted to illuminate mankind. Then eloquence, poetry, music, architecture, history, painting, sculpture, like the spontaneous blossoms of nature, flourished without the appearance of labor or of art. The poets, epic, lyric, and elegiac, were all likewise musicians, so strictly connected were music and poetry for many ages.

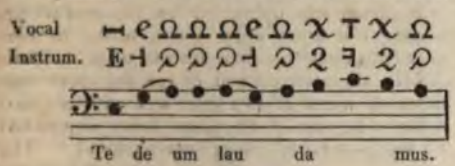
The invention of notation and musical characters marked a distinguished era in the progress of music. Terpander is the celebrated poet and musician to whose genius music is indebted for this. He flourished about the twenty-second olympiad, or A. A. C. 671. Before that valuable discovery, music, being entirely traditional, must have depended much on the memory and taste of the performer.

The Romans, from their first origin, were possessed of a peculiar species of music. It was rude and coarse; but, as soon as they opened a communication with the Greeks, they borrowed their music and musical instruments. The excessive vanity of Nero, with respect to music, displayed in his public contentions with the most celebrated professors of the art in Greece and Rome, is well known. See NERO. The solicitude with which that detestable tyrant attended to his voice, throws some light on the practices

of singers in ancient times. He lay on his back, with a thin plate of lead on his stomach. He took frequent emetics and cathartics, abstained from all fruit, and such meats as were held prejudicial to singing. He desisted from haranguing the soldiery and the senate; and established an officer (Phonascus) to regulate his tones in speaking.

Most nations have introduced music into their religious ceremonies. That the art was early admitted into the rites of the Egyptians and Hebrews, and constituted a considerable part of the Grecian and Roman religious service, appears from many ancient authors. It soon obtained an introduction into the Christian church, as the Acts of the Apostles discover in many passages.

Saint Ambrose, in order to establish certain principles upon the subject of plain chant, then falling into great disrepute, selected out of the twelve Grecian modes, four of them, viz. the Dorian, the Phrygian, the Lydian, and the Mixt-Lydian mode (see page 267). Upon these modes the psalms and other parts of the divine service were chanted or sung, and the melodies of the Victima Paschals, Plange Lingua, the inno or sacred song, and the dies iræ composed; compositions then of established reputation. The music of the primitive Christians, it is generally understood, consisted only of melody, and, as no other rhythm was observed by them than that of discourse, it was purely syllabic, partaking of recitative, till the time of St. Ambrose and St. Augustin, who first introduced the system of singing two or more notes upon one syllable, thus: with Meibomus's translation.



This ancient composition, though composed so early as the year 350, is still performed in the Roman church, but, unfortunately for the cause of music, we have not been able as yet to ascertain the precise nature of the instrument that was used to accompany the singing of it. But, of whatsoever nature this instrument partook, we are positively informed that species of interludes and finales, or instrumental conclusions of chants, were adopted in the time of St. Ambrose from the following remarkable passage taken from his works, 'that not being able to find words worthy of pleasing God, we ought to address him with confused notes of jubilation; for to whom belongs such jubilation without words, if not to the ineffable Being? and how should we celebrate the ineffable Being, when we neither can be silent, or find how to express our transports, unless it be in inarticulate sounds?'*

But, as the limits of the foregoing modes were found of too confined a nature, pope St. Gregory, the restorer of ecclesiastical music in the West, extended these means, and, for that purpose, availing himself, as it is fabulously recorded, of divine inspiration, revealed to him by a dove, or rather of the observations of Boethius, who wrote a treatise upon music, employed all the intervals of the ancient Greek double octave (see page 267), and thereby restored the four subordinate modes termed Hypo-Dorian, Hypo-Phrygian, Hypo-Lydian, and Hypo-Mixt-Lydian (see page 267); the Proslambanomenos of which was fixed upon the lowest clear and firm note of the voice, or instrument, that was supposed to be the deepest settled pitch in nature, adopted freely to express it.

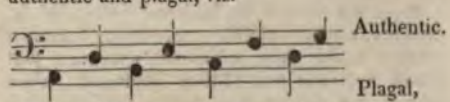
Modes were now by way of distinction termed authentic and plagal, i. e. principal and subordinate; the former being harmonically divided, that is, by a fifth from the lowest, and a fourth from the highest, thus:

	A D		D A
Authentic fifths	E B	authentic fourths	B E
	F C		C F
	G D		D C

And the latter arithmetically divided, i. e. by a fourth from the lowest and a fifth from the highest note, thus:

	A D		D A
Plagal fourths	B E	Plagal fifths	E B
	C F		F C
	D C		G D

Hence the eight celebrated ecclesiastical modes, distributed throughout Christendom, as the foundation of church-music, the sounds of which were expressed generally in notes of equal value, varying only as the words accompanying them required a long or short syllable. The fourth and fifth intervals of these modes were made perfect by the application, occasionally, of a flat, or a sharp, or by transposition. The following is a representation of their key notes divided into authentic and plagal, viz.



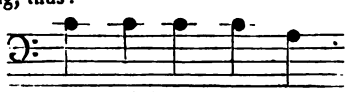
or, classed into equal or unequal, thus:

1	3	5	7	Authentic.
2	4	6	8	Plagal.

* It has been asserted that harmony must have been unknown to the ancients, because each of their musical characters, vocal or instrumental, was the sign only of one sound. May it not also be said, and indeed with much more propriety, in after ages, that harmony was unknown to us: from our adoption of the word chord, to express a union of sounds of different pitch, as, for example, the chord of the fourth implying the union of the fourth, the fifth, and octave, &c.? St. Ambrose introduced music into the church to attract the Gentiles, and to induce the Christians more willingly to assist in the celebration of divine service. Antiphonics were introduced by St. Ignatius, bishop of Antioch. St. Athanasius interdicted the use of music in the churches of his diocese, admitting that more attention was paid to the music than to the word of God; but it was however found, soon afterwards, to accord with devotional feeling.

It must be understood that the sounds of these modes, as performed according to the principles of modern temperament, are not exactly such as were adopted by the primitive Christians, since, we are told, that, whatever the ancient Greeks may have done, they positively tuned their intervals by perfect fifths, and that without the least temperament, the greatest proof that can be given of their ignorance of harmony: combinations of thirds upon this principle being insufferable to the ear, for which reason they have been treated by some writers as dissonances. It must also be understood that the early Christians, in their application of the principles of Greek music to their sacred writings in prose, instead of poetry, sacrificed its rhythm, and metre: the force and energy of Grecian, also of modern music.*

With these extended means pope St. Gregory composed and added to the chants of the mass, and Hallelujah by Galasius, the Introitus, Kyrie Eleison, the Antienne, Offertory, Litanies, and other pieces. He also framed a code of laws, and, for their strict observance, established, in various parts of Europe, musical schools, where all choral books were corrected, and the pupils, consisting only of orphans, taught accompanied with an instrument. To the singers particular dresses were assigned, together with funds for their support; this happened in the year 590, when, as the manner in which part of the divine service was performed partook absolutely neither of singing nor speaking, it is inferred that it was read after the manner of the ecclesiastical accentuation, or of the reading of the gospel and epistles observed in cathedrals, called psalmodizing, thus:



Quis infirmatur, &c,

upon the principles of which St. Ambrose, however, wrote in his work upon Rhythmus in the year 390.

From the time of St. Ambrose to that of St. Gregory, a period of 200 years, nothing is known relative to the cause of music, excepting that popes Sylvester and Hillary instituted public schools for singing and that about this time music was reckoned amongst the number of fine arts; the fathers of the church cultivating it as capable of elevating the soul and devotional feeling. But, for the honor of music, it has been observed that it was the first of the arts, having preceded the rest in order of time; and that it is much more so that it will exist when they can no longer be of any use, and survive when all others shall be forgotton. The musicians assembled in the form of a semicircle round the altar, sang with sweetness and devotion, in chorus, in which popes, and other dignitaries of the church, deemed it an honor to join; the singing master stood in front, or in the middle, holding a stick, a sign of authority given him by the pope, in his left hand, and beating time with his right. When one singer only was employed to give out the psalm, his station was in the middle of the church; if two, each at the top of the aisles.

The Gregorian, or chant of the choir, called also the Roman chant, because adopted by the church of Rome, and from thence introduced into the eastern church, was adopted in England by St. Augustin, contemporary with St. Gregory in the year 590, and afterwards in Germany by St. Boniface. It subsisted with more or less success till the year 787, when, through the ignorance and incapacity of its teachers in general, it became so corrupted that its principles were scarcely to be recognised. Pope Vitalianus in 658 introduced the organ into the Roman churches to accompany the singers; Leo II. in 688 reformed the singing of the psalms and hymns, accommodating the intonation of them to the manner in which they are sung or performed at the present day. St. Dunstan, an eminent musician, first furnished the English churches and convents with an organ; which seems to have been an improvement of the hydraulicon or water organ of the Greeks. The first seen in France was sent from Constantinople in 757 by the emperor Constantine as a present to king Pepin.

To correct the abuses arising from the excessively ornamental staccato style, introduced by the singers and described by the holy fathers as imitative of the chatterings of magpies rather than of men assembled for the purpose of praising their Maker, it was ordered in the council of Valentia of 811 that the principles of plain chant should be rigorously observed.

Notkerus was upbraided by his master for singing two notes upon one syllable. In the year 850, under the pontificate of pope St. John XXII., an easier method of reading music by means of a staff of two lines was adopted, the different degrees of the octave being expressed by breves in the following manner, thus:

such was the desire to cultivate the principles of music in England, that, in 885, king Alfred the Great, established a musical professorship at Oxford, and, following the example of other sovereigns, sent to Rome for music masters to teach his subjects the principles of plain chant, which, from the choice of its teachers being made with more discrimination, flourished till the time of Guido Aretinus in the eleventh century, when the principles of music underwent a thorough reformation. It must, however, be remarked that something more than the mere acquirement of a few crotchets and quavers was necessary in these times to make a musical professor.

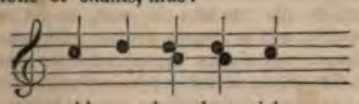
During the dark ages, no work of genius or taste in any science was produced in Europe; and except in Italy, music was equally neglected. In the middle ages, when the most fertile provinces of Europe were occupied by the Goths, Huns, Vandals, and other barbarous tribes, whose language was as harsh as their manners were savage, no improvement of music is to be looked for.

Franco is the first upon record who entertained the idea of counterpoint, an art which has since

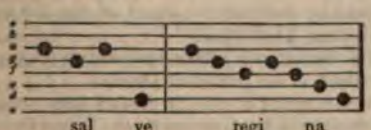
* This species of prosaic music prevailed, in a measure, till the year 1700, Pergolen being the first to introduce into his compositions the principles of rhythm, as observed in the classical works of the present day.

experienced gradual and imperceptible improvements, far exceeding the powers of any one individual. The term counterpoint, or contra punctum, denotes its etymology and import. Musical notation was at one time performed by small points; and the present mode is only an improvement of that practice. Counterpoint, therefore, denotes the notation of harmony or music in parts, by points opposite to each other. The improvements of this acquisition kept pace at first with those of the organ; and both were employed chiefly in sacred music, till the thirteenth century, when secular music began to be cultivated.

From the general introduction of organs into the church it is natural to conclude that some ideas of harmony, according to our acceptation of that word, should have been entertained by their admirers and inventors; and it is somewhat remarkable, after what has been said upon the subject of the Orphean lyre, that the first union of sounds adopted as most grateful to the ear, should also have been minor thirds; they were however but sparingly used, and only in the conclusions of chants, thus:



called organising. Several methods producing harmony were also adopted, such as placing a holding note a fourth below, or a fifth above, the vocal part, or both, which was termed doubly organising. This method was afterwards adopted for voices only, hence the expressions seen in ancient compositions, discant double treble, quadruple discant, de medius, &c. These and other unions of different sounds, as the harmony of, or belonging to, the major sixth, &c., ascribed to Franco of Cologne, or Paris, also to Guido Aretinus in the year 1066, gave birth to modern harmony and temperament. Franco introduced notes of different lengths, as the semibreve long, and maxima, thereby giving a proportionate value to the breve introduced by St. John Damascenus. Guido Aretinus improved the musical staff of two lines already mentioned, as also of another of eight lines which was found in a manuscript in the library of St. Saviour, in Messina, with the names of the lines placed at the head of it, thus:

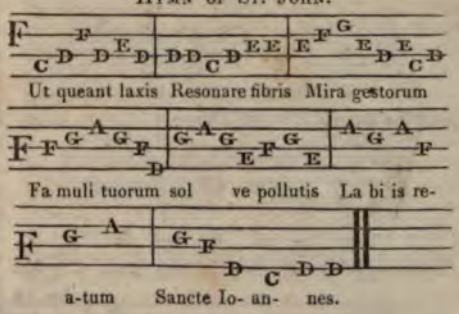


also as described by Gerbert, thus:

tris sempiternus / /
pa / / fi
/ es / li
Tu / tris sempiternus / / / us
pa / / fi
/ / fi
Tu / / us.

in the formation of one of four lines, and making use of the interstices, thus:

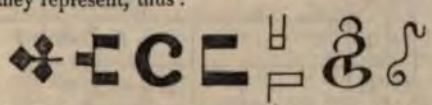
HYMN OF ST. JOHN.



the letters (sometimes points) representing the music to which Sappho and Horace are said to have set many of their odes. Another method expressing the sounds F and C by a red and a green line, thus:

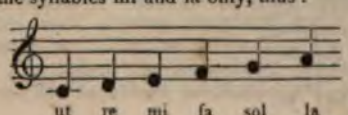
red
green

when it was deemed unnecessary to mark the intermediate lines or spaces. To express the nature of higher or lower sounds than the staff provided for, the red line was placed below the green one. The necessity of that occasional transposition of colored lines caused the introduction of the F, C, and G cleffs, providing the means of expressing the compass of bass, tenor, and treble, voices upon one staff only; these cleffs were originally of the following forms, partaking somewhat of those of the letters, or sound, they represent, thus:

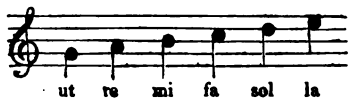


the F cleff was also expressed in the following manner, viz. the last figure representing the shape of an ancient key. The placing of these cleffs upon any line of the staff gave it a name, and thereby determined the acuteness and gravity of the rest. Hence the term cleff, or key, to unlock or unfold.

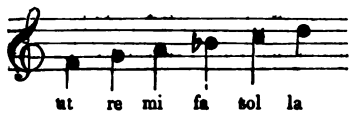
For the purpose of ascertaining with precision the nature of the half-tones in the octave, forming the major diatonic scale, a difficulty felt at the present day in singing music at sight, Guido Aretinus changed the eight letters into six syllables, viz. ut-re-mi-fa-sol-la, and turned the ancient Greek tetrachords into hexachords, i. e. into systems of six sounds instead of four; thus, by an ingenious method, copied from the Greeks, marking by their divisions into cantus naturalis, cantus B durum, and cantus B molle, the characteristic half-tones of the major diatonic scale, by the syllables mi and fa only, thus:



called the cantus naturalis, because the syllables correspond to the letters they represent; the cantus B durum is thus expressed, viz.



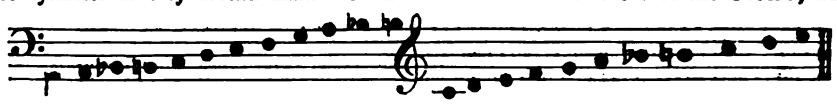
and the cantus B molle, thus:



These syllables as they ascend mark the first word of each line composing the hymn of St. John, which was sung by the disciples of Guido Aretinus, as an exercise to establish in the mind the various degrees of the hexachord, thus:

Ut-queant laxis
Re-sonare fibris
Mi-ra gestorum
Famuli tuorum
Sol-ve pollutis
La-biis natum. SANCTE JOHANNES.

But, as will easily be perceived, Guido Aretinus, for the accommodation of this system called mutation of syllables, deemed it necessary to add a note below the proslambanomenos, and five others above the double octave of the Greeks; thus:



calling the first or lowest note by the Greek letter gamma, thus: Γ, implying G also ut: hence the expression gamut, or gamma-ut, formed of seven hexachords, as shown in the following scheme, viz.

20	E						la
19	D					la	sol
18	C					sol	fa
17	H						
17	B					fa	mi
16	A				la	mi	re
15	G				sol	re	ut
14	F				fa	ut	7
13	E			la	mi	6	
12	D		la	sol	re		
11	C		sol	fa	ut		
10	H			mi	5		
10	B		fa				
9	A	la	mi	re			
8	C	sol	re	ut			
7	F	fa	ut	4			
6	E	la	mi	3			
5	D	sol	re				
4	C	fa	ut				
3	BH	mi	2				
2	A	re					
1	G	ut					
		1					

which, says Guido Aretinus, in his Letters on his Micrologus, not only taught the principles of singing in one month, but, amongst other wonderful things, to modulate the subject into systems neither heard nor seen,* and by which the student in one, or at most two years, will become a greater adept in the science of music than by any other method in ten. The utility of this work, however, did not fail to create many invidious rivals, whose malevolent representations alienated the friendship of his patron, the abbot of Pomposa, and he was banished as an exile from that monastery. This method of solmisation, the ground-work of all classical compositions, was adopted with great success by one whose name will ever be dear to Englishmen, and whose works, from the number as well as merit of them, will at all times be reckoned amongst the brightest ornaments of the British school. We allude to the late Samuel Webbe. This scheme, it will be observed, not only teaches the precise value of intervals, but the first principles also of modulation, showing, by its various hexachords, the origin of our terms the tonic, dominant, and sub-dominant, a plan essential to all who would sing with discrimination. The Italians still adopt these principles of solmisation, and, in the designation of the keys into which their compositions are effected, they invariably use the expressions A la mi, C sol fa ut, &c., which, in no way satisfactorily can be explained, than by reference to the foregoing table. These principles were also explained by the different joints of the left hand as in plate XIII. fig. 3.

The figures and points representing the sounds explained in the preceding scheme.

At this epoch of musical history may be dated the decline of the Grecian modes in general.

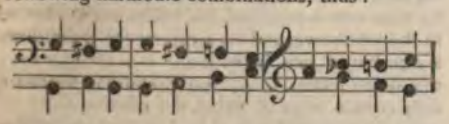
The harpsichord is supposed to have been invented before the time of Guido Aretinus, since without some such instrument neither he nor Franco could have put into practice their notions upon the principles of harmony. Soon after this period the compass of instruments in general use was extended from C below gamma to C above E la of Guido Aretinus's scale, forming a compass

* The intelligent musician will not fail to understand the drift of this remarkable sentence.

of four complete octaves; and this arrangement of sound constituted, for many ages, the whole extent of instruments in general use, such as the clarichord, clavictherum, virginal, and monochord, all of which came under the denomination of spinets; a word derived from spina, a thorn, or little quill, or piece of metal with which the strings of these instruments were made to sound. Ornamental methods of playing are said by Rees to have originated from the shortness of the sounds produced from these instruments, being introduced to occupy, by reiteration of the same notes, the space of time required by long ones, that the ear might not lose their connexion. In nunneries the strings of the clarichord were occasionally covered with cloth, that the sounds might not disturb the dormitory. Organs were afterwards contrived to produce the same number of notes, when the tympanon, epigonium, and other instruments, began to decline, as spinets, in their turn, have yielded to the modern pianoforte and organ. The former comprising a diapason of six octaves and a half. But the extremes of acuteness and gravity, which the ear has been found susceptible of appreciating, exceed nine octaves, viz. from C the third octave below the second space C bass-staff, to C the fourth above the third space, C, of the treble staff. The first making thirty-two vibrations in a second, and the last 16384. The pianoforte, or as originally termed the hammer harpsichord, was invented in the year 1711 by B. Christofalti, a harpsichord maker in Venice, but was not generally introduced till the year 1790, when its strings consisted entirely of brass.

Plain chant, expressed upon a staff of four lines, and two clefs, was the only species of music thought worthy of the speculations of the learned, and no mention was made of musical rhythm, with the exception of St. Ambrose, till the time of Franco, though it was constantly observed in the tongues of the vulgar. The metrical feet introduced by Franco were distinguished into five modes, or elements of rhythm, but, from want of examples, they are in no way satisfactorily to be explained.

In the time of the crusades, music, as all other arts, was neglected, little being known than that Walter Odington, a monk of Evesham, in 1240, and Handlo Marchetti, in 1283, had improved its theory, from their frequent employment of the following harmonic combinations, thus:



consisting of the admixture of dissonances and consonances. These interesting specimens of harmony taken from a manuscript dedicated to Charles, king of Sicily, in 1283, and preserved in the Vatican, the earliest perhaps in which the characters of flat and sharp are introduced, chromatic counterpoint, major and minor semitones, and dissonances, enable us to form some idea of the first efforts of genius in the art of harmony, when every thing depended upon instinct, guided solely by the ear; when it was essential that genius should create at every step, and when the least of its inventions was more meritorious than the greatest efforts of the present day, produced by reminiscences. Marchetti also wrote upon the subject of measured music. Intervals of thirds and sixths, about the end of the thirteenth century, were deemed more harmonious and better suited for church music than fourths or fifths or faubourdons of psalmody, consisting of simple counterpoint in four parts, but which had its charms nevertheless, in these gothic times, and subsisted for several centuries. Pope St. John XXII., in 1316, issued a bull denouncing the use of harmonic combinations of thirds and sixths, together with the abuse of crowding the majesty and simplicity of the Roman chant with too many parts, excepting only upon certain parts of divine service, when the addition of a few melodiously harmonious passages of thirds, and sixths, and octaves, should accompany the subject of plain chant; and that the instruments should perform strictly in unison with the different voices, i. e. alla capella. But these and other improvements, though rejected by the church, were eagerly adopted by the votaries of profane music.

One of the principal causes of the advancement of the art of music was the introduction of Italian lyric poetry. When prince Conrad marched against Charles I., king of Sicily, in 1268, a chorus of women sung in the streets, accompanied with cymbals, tambourines, flutes, violins, and other instruments. All Italy was now filled with fiddlers, singers, mimics, and buffoons, called guillare, and gioccollare, also of minstrels and poets of considerable repute, but to whom Dante was so far considered superior, that he was styled the creator of Italian verse, which, like the strains of Tasso, were recited by heart, by the common people. Nevertheless the melodies to which Italian verse was generally sung partook of the principles of plain chant, till the time of Scocchetti, the contemporary and friend of Dante, who was a good poet as well as an excellent musician. This is ascertained from a title of a species of ballad cited by Crescembini, in which we read the words by Dante, and the music by Scocchetti, Parole di Dante e suoni di Scocchetti. Casella, the meeting of whom is described in the purgatory with so much feeling, was also an excellent musician and friend of Dante. All verses now sung, were defined by poets, fictitious oration set to music. The most ancient melodies of Italy, composed to Italian words, are to be seen in a manuscript collection of sacred songs preserved at Florence, entitled Laudi Spirituali; they are a species of canticles in praise of God, and of the virgin, saints and martyrs. One of these is remarkable not only as showing the first dawnings of modern rhythm, keeping, or, in other words, connexion of melodic design of Italy, but as containing a note hitherto never described; for the principles of composition were so strictly confined within the limits prescribed by Guido Aretinus, that, even in profane music, all other intervals of half-tones were considered as licenses. See plate XIII. fig. 1.

The natural love of measured melody, which time and experience produce, says the ingenious

Mr. Webbe, throws the voice into song, the gesture into dance, the speech into numbers. Thus music becomes a language, and, as such, it has its orthography, its punctuation, its prosody, its grammar and poetry, cæsural pauses, hemistichs, and periods, a certain number of which constitutes an air, as a paragraph is composed of various sentences. We may read, recite, and declaim in music as in all languages of convention. United with poetry, as in the songs of the troubadours, minstrels, druids, and bards, it assists in a sensible manner all poetical description. These songs were accompanied, as a matter of course, with musical instruments, as the harp, viol, bagpipe, and psalterion, which are but imitations of the human voice produced by frequent trial and experiment. But unfortunately for the history of music, the religion of the bards did not permit the principles of their arts and sciences to be written, and the moment the arts and sciences began to flourish the reign of the bards was destroyed.

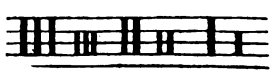
As the lyre was the favorite instrument in Grecian poetry, so the harp held the same place in the estimation of the poets who flourished in this period. A poet of the fourteenth century, Machau, wrote a poem on the harp alone; in which he assigns to each of its twenty-five strings an allegorical name; calling one liberality, another wealth, &c. The instrument which frequently accompanied, and indeed disputed the pre-eminence with the harp, was the viol. Till the sixteenth century this instrument was furnished with frets; after that period it was reduced to four strings: and still under the name of violin holds the first place among treble instruments. The viol was played with a bow, and differed entirely from the vielle, the tones of which were produced by the friction of a wheel; the wheel performed the part of a bow.

British harpers were famous long before the conquest. The bounty of William I. to his joculator or bard is recorded in Doomsday book. The harp was the favorite instrument for many ages, under the British, Saxon, Danish, and Norman kings. The fiddle, however, is mentioned so early as 1200 in the legendary life of St. Christopher. The ancient privileges of the minstrels at the fairs of Chester are well known. The extirpation of the bards of Wales by Edward I. is likewise a familiar incident. But his persecuting spirit seems to have been limited to that principality; for, at the ceremony of knighting his son, a multitude of minstrels attended. In 1315, under Edward II., such extensive privileges were claimed by the minstrels, and so many dissolute persons assumed that character, that it became necessary to restrain them by express laws. The father of genuine English poetry, who in the fourteenth century enlarged our vocabulary, polished our numbers, and augmented our store of knowledge (Chaucer), entitles one of his poems The History of St. Cecilia, the celebrated patroness of music. Neither in Chaucer, however, nor in any legendary account of this saint, does any thing appear to authcrise the veneration paid to her by the votaries of music. Spelman says, the degree of doctor was not granted to graduates in England before the reign of king John, about 1207; but, in Wood's History of Oxford, that degree is said to have been conferred in music, in the reign of Henry II. The title was created on the continent in the twelfth century.

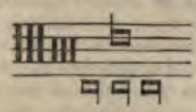
With the exception of the melodies of Scotland, we have no traces of profane music, in past ages, so interesting as those used at the coronation of Petrarch; when he marched to the capitol preceded by twelve maidens of families of distinction, singing verses of his own composition. On this occasion were introduced two choirs of music, vocal and instrumental, playing and singing in sweetest harmony. In the Decameron of Boccacio honorable testimony is borne to instrumental music as terminating the amusements of the day, when, as at present, two styles of music were observed; one composed of plain and popular melodies, easily understood and executed, such as ballads noticed in the ninth day; the other more elaborate and artificial, performed by musicians of experience. As Dante boasted a Casella, so did Petrarch of Bombasia, and Boccaccio of the famous Minuccio D'Arezzo, who sang and played upon the viol. These airs, undoubtedly resembling the songs of the Troubadours, were composed independently of the monotonous principles of plain chant which were felt as revolting to those expectations of genius which excite the invention of melodic phrases. But as the principles of plain chant were too firmly established to sacrifice to the caprice of the day, they were retained exclusively for the church, and music became regularly divided into sacred and profane.

In the year 1353 the principles of rhythm, as established by Franco, were abandoned, and notes of shorter duration, as the crotchet, quaver, and demisemiquaver, were introduced by Jean de Muris, to whom we are indebted for some of the rules regarding movement of parts observed at the present day, but which stood in need of revision.

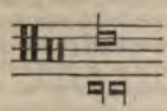
The notes of the long, breve, maxima, and semibreve, having reference to metrical feet, preceded the use of bars to divide measure into equal portions, each having a relative value, i. e. depending upon the nature of the mode, of time, and of prolation; a species of time as strictly observed and beaten as at the present day. By the mode was determined the relation of the maxima to the long, or of the long to the breve; by time was determined the relation of the breve to the semibreve, and the semibreve to the minim, a sign but of late invention. It is obvious that the terms mode, time, and prolation, signified only certain ways of fixing the relative value of notes by a general sign placed at the head of the musical staff, thus: O or C pointed or not pointed, followed by a figure of a 2, or 3, differently combined, or, divided in the centre, thus: Ⴗ ₵ to which were afterwards added different perpendicular lines, varying in number and length, according as the mode was perfect or imperfect; thus—



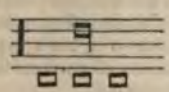
when bars covering three spaces, with reference to the Trinity, denoted that the time was perfect, and the maxima of the value of three longs, and the bars covering two spaces only denoted that the long was of the value of three breves. The modes which fixed the relative value of notes were major or minor, as well as perfect and imperfect. The major perfect mode was expressed by bars covering three spaces, when the maxima was considered perfect, and the measure of three times, thus—



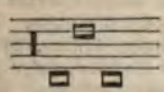
The imperfect major mode was thus expressed, when the maxima was equal to two longs, and the measure of two times, thus—



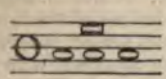
the minor perfect mode was expressed by one bar, occupying three spaces, when the measure was of three times, and the long of the value of three breves, thus—



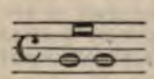
The imperfect minor mode gave to the long the value of two breves, when the measure was of two times only, thus—



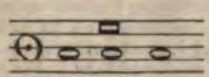
What has been said upon the subject of the mode may be applied to time and prolation, using only notes of shorter duration, in the same proportion when, instead of a bar, a circle, or semicircle, as regards perfect, and imperfect time, and a circle pointed or not pointed, was used to express prolation, perfect or imperfect, thus—



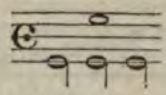
denoting perfect time, i. e. the breve of the value of three semibreves, and the measure of three times. The imperfect time is thus expressed, viz.



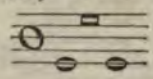
when the breve was equal to two times, or semibreves only; major perfect prolation, thus—



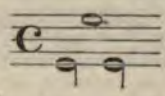
and minor perfect prolation, thus—



Major imperfect prolation thus—



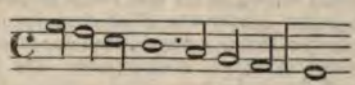
i. e. a measure of two times only; and minor imperfect prolation was thus expressed, viz.—



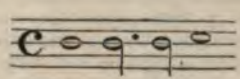
denoting a measure also of two times. The following figures have also been used to express these varieties of mode, time, and prolation, viz.

As every musician conceived himself entitled to introduce any sign his caprice might dictate, it is natural to conclude that the compositions of these times should be somewhat difficult to decypher; one of the greatest is the precise signification of the points, of which some were placed to the left and others to the right of notes, and designated points of perfection, of division, of alteration, of translation, and of augmentation.

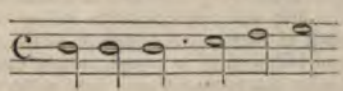
The point placed after a note, the signature of which gave it the value of three times, was called the point of perfection, thus—



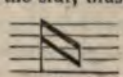
The point placed between two notes, marking two different measures, was called the point of division, thus—



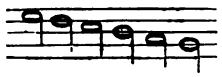
the point intended to double the value of certain notes was called that of alteration, thus—



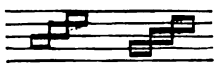
Lastly, when the point was placed after a note of which the sign was not marked, this note was augmented one half, and therefore called the point of augmentation. The ligatures employed by our forefathers were curious, and deserve to be noticed; as showing a short way of writing, and the origin of the slur, thus—



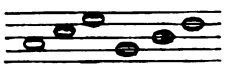
the abbreviation of the following passage, viz.



as the following ligatures, thus—



are abbreviations of the notes, viz.



These ligatures had also their rules, varying as their stems ascended or descended. The value of notes was diminished by blackening or coloring the white ones. This enigmatical manner of writing, it would seem, was adopted, as if the beauty of music could be felt only in proportion to the difficulty of comprehending it, but which, nevertheless, continued till the time of Orlando Lasso.

In the fifteenth century the musical system of Josquin, and the Lexicon of Tinctor, served to explain both the principles and terms employed in the science of music. The fundamental principles of the manuscript lately discovered by the latter author are fully explained in George Dowland's translation of Ornithoparchus.

By instruments comprising a clavier of four complete octaves, as already explained, the multiplicity of parts was facilitated; and every tone being divided, as in the time of Pythagoras, into half-tones, serving as flat and sharp required, a much greater facility was afforded to diminish and augment certain intervals, than was attained in the earliest ages of counterpoint. The long levers of the clavier were called pallets, and the short ones, acting as pedals upon the harp, were designated by the generic term feintes.

So much having been said upon the subject of plain chant, a question naturally arises as to when and by whom were composed the melodies of Scotland, the characteristics of which are perfection of rhythm and unity of melodic design in all the Grecian modes. Tassoni, in his Pensieri, speaking of the abilities of Theophilus the emperor, as a most successful composer, mentions Jacopo (James) king of Scotland, who not only composed in canto, but invented a new style of music, lamentavole e mesta, plaintive and affecting, of a nature totally opposite to all other compositions, and that this style was imitated by Carlo Gesualdo, prince of Venoza, an admission, as coming from an Italian, affording the singular anomaly of Scotland giving laws upon the subject of music to Italy.

But Campbell, who seems to have dived more into the subject of Scottish music than any other writer, observes that the favorite idea that James either invented, or in any considerable degree improved the genuine Scottish melodies, is by no means established on any authentic evidence. Pinkerton is of opinion that none of the songs (words) are older than the fourteenth century, and that the origin of Scottish music must be sought for in that of Scandinavia and Iceland.*

As subsequent to the Christian era, but little has been said upon the principles of rhythm, and as no traces can be found in Italy of any music of a rhythmical nature previous to the production entitled 'Alla Trinita,' a composition, as compared with the worst of Scottish melodies, totally of an inferior description, it is evident that they never were derived nor received the least improvement from Italy. But as they have been traced long before the reign of James I., and as the principles of rhythm from time immemorial were constantly observed in the songs of the common people, it is by no means impossible, that, if not of Iceland, they are of Grecian origin, and that they were transmitted to us by the Romans, the Druids, minstrels, shepherds and highland pipers, preserved by the monks of Montrose, and, probably, by James I., who was too excellent a poet and musician not to feel and appreciate the value of them. Had they been composed since the invention of printing, it is scarcely possible that the names of their composers should not have been regularly canonised. These inestimable gems were doubtless sung unaccompanied, or at most in unison, when the voice, left freely to vibrate upon the ear, the more readily conveyed them to the heart. Indeed had they not in a most powerful manner affected the passions of mankind they would have been forgotten ages ago.

Before the reformation, as there was but one religion, there was but one kind of sacred music in Europe, plain chant, and the descant built upon it. That music likewise was applied to one language only, the Latin. Hence the compositions of Italy, France, Spain, Germany, Flanders, and England, kept pace with each other in style and excellence. All the arts seem to have been the companions of successful commerce, and during the sixteenth century became general in every part of Europe.

In the sixteenth century music was an indispensable part of polite education. There is a collection preserved in MS. called Queen Elizabeth's Virginal Book. Tallis, profound in musical composition, and Bird his admirable scholar, were two of the authors of this famous collection. In queen Elizabeth's reign, the genius and learning of the British musicians were not inferior to any on the continent.

Of the various methods of composing music, a singular custom prevailed to which the singers and composers were obliged to conform, viz. of taking a well known melody for a subject, and, whilst the air was heard in one or other of the parts, remaining voices prolonged or shortened the notes of the subject, strictly, however, pre-

* At a time when the whole of Europe was involved in ignorance, Iceland abounded in learning. Its first discoverer upon record was Naddod, a pirate, in 861, and the Roman Catholic religion was introduced among its inhabitants in 974. They had various musical instruments, one of which, called the long spiel was found there by Sir Joseph Banks.

serving the respective degrees of acuteness and gravity of its intervals, producing imitations, canons, and fugues. This custom subsisted till the time of Zarlino, and Glareanus informs us that, in his time, but little was composed but upon the foundation of some well known melody, and that such compositions as were not composed upon this principle were termed missa sine nomine. Of the melodies used as a foundation for counterpoint, the most celebrated was the song entitled L'Homme Armé, a provincial canzonet composed in the early part of the sixteenth century. Another method, not less remarkable, was also observed, consisting of singing certain parts of the divine service in four parts impromptu upon a given subject, written principally for the tenor called 'chant sur le lure.' But these compositions, however ingenious, afforded more an object of intellectual amusement than of spiritual devotion; the sense of the words was quite out of the question. These abuses were corrected under the pontificate of Marcellus in 1555.

Every means being now employed that science and application could suggest, to bring to perfection the natural powers of harmony, the melody arising from the Ionian and Æolian modes was found to be susceptible not only of greater perfection than that hitherto employed in psalmody, but even of grace, elegance, and of every embellishment that art and genius could furnish. This discovery soon introduced music into good company, and from taverns, and other haunts of the vulgar, it ascended to form the delight of polished society, as also, for the first time, of the speculations of the learned. But unfortunately for the cause of that species of melody which, in the early part of this history, had been proved to be totally independent of harmonic rules, the powers of the other Grecian modes were considered of too feeble a nature to be attended to, and their divisions into plagal and authentic were entirely superseded by the major and minor modes. These modes, adopted solely by those in whom the principles of taste for melody combined with harmony, had developed themselves, are determined by their respective mediants.

Under the pontificate of Marcellus, and, at a time when music, from its degraded state as a science, was upon the eve of being entirely excluded from the celebration of divine service, Palestrina at the age of twenty-six presented to his holiness a mass upon an entire new principle, the success of which procured for him the situation of composer to the church of Rome. His observations upon the principles of harmony produced a complete revolution in the science, not only in Italy but in every part of Europe. He was a pupil of Goudimil of Besançon, a celebrated composer of the French school, which, says Choron, having emanated from the Flemish, and the first that flourished after the arts had fallen, ought to be considered the mother of modern schools.

Palestrina, also, in compliance with custom, produced a mass upon the subject of L'Homme Armé. It was so complicated that Zacconni wrote a commentary upon it, occupying thirteen folio pages of close printing, to explain the notes and to resolve the canons; but even with this assistance few musicians are competent to adjust the parts in score. In 1570 Palestrina renounced this pedantic style of writing; and such was the excellence of his compositions that Cifra, Tharenzio, composers of the first order, and De Porta, considered them as models of perfection. Soriano was an imitator of Palestrina, and a composer of 110 canons upon the subject of Ave Maria Stella. Valentina, however, surpassed Soriano in the composition of a canon called Solomon's Knot, consisting of ninety-six parts: a description of this canon may be seen in Dannely's Portable Encyclopædia of music, a work, which, inasmuch as it combines the whole of the theoretical observations of Catel Choron, and Reicha, together with the principal articles in Roch's German Lexicon, is highly useful to the musical student.

Monteverde, also an imitator of Palestrina, deserves honorable testimony; for, having acquired the excellence of the system of counterpoint adopted by that eminent composer, he ventured to introduce double dissonances as the diminished fifth and minor seventh, for which, although they please the ear and are productive of the finest effects, he had the mortification of being designated an impostor and corrupter of the art.

The most eminent musical theorists of Italy, who flourished in the sixteenth century, besides these already named, were Franchinus Gasierius of Lode, Peter Aaron of Florence, Lewis Fogliano, John Spatatro, John Maria da Terentio, Lanfranco, Stephen Uanneo, Anth. Doni, the most general, voluminous, and celebrated theorists of that period; Vincent Galilei, a Florentine nobleman, and father of the great Galileo Galilei; Maria Artusi of Bologna, Oraseo Tegrini, Peter Pontio, Lewis Zacconi, and Andrew Rota, an admirable contrapunctist. The principal Roman authors were, John Amnuccia, Rugiero Giovanelli, Lucas Marenzio, who brought to perfection madrigals, the most cheerful species of secular music. Of the Venetians, Adrian Willaeri is allowed to be at the head. At the head of the Neapolitans is deservedly placed Rocco Rodio. At Naples, too, the illustrious dilettante, Charles Gesualdo prince of Venosa, is highly celebrated. Lombardy could also furnish an ample list of eminent musicians during the sixteenth century. The chief of them were Constance Porta, Gastoldi, Biffi, Cima, and Vocchi. Francis Corteccia, a celebrated organist and composer, and Alexander Strigglio, a lutanist and voluminous composer, were the most eminent Florentines.

Up to the year 1700 the principles of musical rhythm were but imperfectly understood; much less so, perhaps, than by the ancient Greeks and Romans. For by the continual application of long notes to short syllables, and long syllables to short notes, by Hasse, Handel, &c., as for example—

> Angēls ĕvĕr brīght ănd fāir,
> Wāft hĕr ăngēls thrŏugh thĕ skīĕs.

the cæsural pauses of the poetry were often con-

founded with those of the music. Peigolese, in the improvement of these defects, deserves to be noticed in history. But though it must be confessed that the melody of the moderns, by neglecting the ancient rules of the Melopœia, has acquired a richness and variety, as compared with the few specimens of ancient music handed down to us, it cannot be dissembled that this variety is often maintained in defiance of the general rules of prosody, when the voice is not only made to apply a short note to a long syllable, but even to dwell and run into divisions upon the insignificant particles of language, whilst the most emphatical words are nearly imperceptibly glided over to the entire subversion of the poet's meaning. Music then, instead of aiding poetry, becomes the instrument of rendering it ridiculous, and making sense nonsense.

As early as 1440 an opera, in imitation of Greek tragedy, called the conversion of St. Paul, was publicly performed in Rome. Five years afterwards La Verità Raminga; and in 1574 operas were upon the scale of modern times. The performance of Daphne and Eurydice, by Peri and Arienne, astonished the whole of Europe. The first operas were performed in a cart, with a moveable stage, like the one used by Thespis at Athens, and they attracted the multitude from street to street.

Having, as far as our limits permit, described the nature of musical instruments, and their employment in the formation of the ancient and modern systems of sounds, the leading features of musical history, we pass over events of minor importance, and cursorily notice the introduction in the seventeenth century of the bar to divide musical sentences into equal portions; the addition of the fifth line to the musical staff; and Ludovico Viadona's harmonised scale of the octave, the merits of which will be shown in our principles of harmony and composition. Among the various treatises that have been published on this enchanting science, by the most eminent authors, in the course of the eighteenth century, none has obtained higher or more just applause for method, perspicuity, conciseness, and elegance, than that of M. D'Alembert's translation of Rameau's principles of harmony.

The first theories of music were perhaps as ancient as the age of Pythagoras; nor does history leave us any room to doubt, that, from the period when that philosopher taught, the ancients cultivated music, both as an art and as a science, with great assiduity. But there remains to us much uncertainty concerning the degree of perfection to which they brought it. We shall, therefore, content ourselves with considering the present state of music, and limit our endeavours to the explication of those accessions which have accrued to the theory of music in these later times.

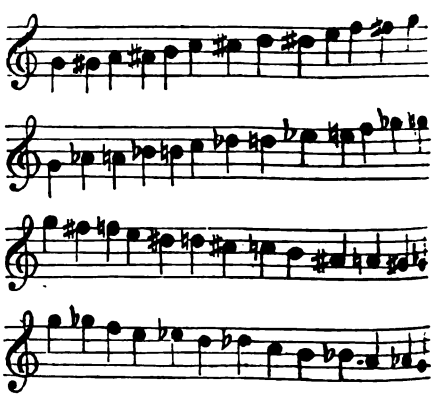
The first compositions upon the laws of harmony which we know are of no higher antiquity than two ages prior to our own; and they were followed by many others. But as none of these essays were capable of satisfying the mind concerning its principles; as they were confined almost entirely to the collecting of rules, without endeavouring to account for them; and neither their analogies one with another, nor their common source, had been perceived: an unenlightened experience was the only compass by which the artist could direct his course. M. Rameau was the first who began to transfuse light and order through this chaos. In the different tones produced by the same sonorous body, he found the most probable origin of harmony, and the cause of that pleasure which we receive from it. His principle he unfolded, and showed how the different phenomena of music were produced by it: he reduced all the consonances to a small number of simple and fundamental ones, of which the others are only combinations or arrangements. He, in short, discovered, and rendered sensible to others, the mutual dependence between melody and harmony. Tartini presented us in 1754 with a treatise of harmony, founded on a principle different from that of M. Rameau. This principle is the result of a most beautiful experiment. If at once two different sounds are produced from two instruments of the same kind, these two sounds generate a third, different from both the others.

But from the great encouragement given by the various conservatories upon the continent, since the publication of these treatises, however excellent and ingenious, they have been superseded by others more efficient for the explanation of musical theory in general; and the theoretical works of Choron, Catel, Momigny, and Beicha, possessing every observation that science and experience could suggest upon the subject of music, little or nothing is left to later theorists but to study and translate them.

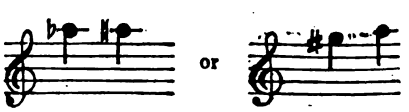
PART II.

THEORY OF MUSIC.

From the twelve degrees of the octave, tuned according to that mode of temperament which gives to each note its natural sound, thus:—

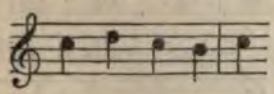


together with others thus—

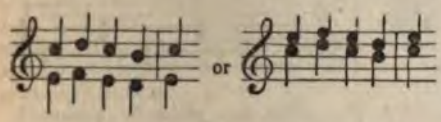


and as represented upon the following portion only of the modern pianoforte clavier, thus—

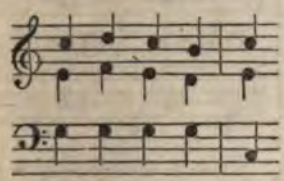
we obtain the twelve major and minor scales, the thirteen harmonic combinations of sounds, every major and minor semitone, and augmented, diminished, perfect, and enharmonic interval; which, as colors to the painter, are the materials for musical compositions: all other sounds, high or low, being considered, and treated, as replicates of the above notes, and as varieties of the diatonic scales, major or minor, whether as regards melody or harmony; the former consisting of a succession of notes capable of being sung by a single voice, or played upon the pianoforte, thus:



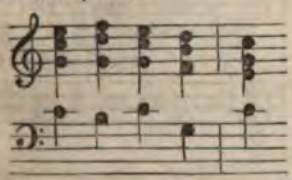
the latter of a combination of notes, sung by two voices, thus—



by three voices, in the following manner, thus—



or by four voices, thus—



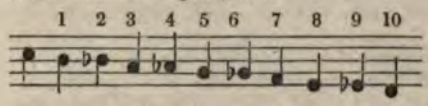
In the foregoing specimens of harmony, in two parts, the lowest of the first forms the highest of the second specimen; this transposition of sounds is employed to produce variety, and is called inversion of intervals, a process by which major intervals become minor ones; minor intervals become major; augmented intervals become diminished, and diminished intervals become augmented. All intervals are known by the number of degrees composing them; and every interval is susceptible of inversion.

Intervals of seconds, of which there are three species, produce by inversion, sevenths, thus:

1. The minor second, as C natural, and D flat, next above, composed of one chromatic degree, produces, by inversion, the major seventh, as C natural, and D flat, next below, which is composed of eleven chromatic degrees (see table of intervals, p. 290).

The number of degrees of any interval diatonic or chromatic, wanted to complete the octave, is called the complement of the octave, which must either make up the number 9, or that of 12: the former by diatonic degrees, when the first note, or root, is called unison, and is reckoned as one; and the latter by chromatic degrees, when intervals are reckoned according to the absolute degrees of which they are composed.

2. The major second, as C, D, next above, composed of two chromatic degrees (see table, p. 290), produces, by inversion, the minor seventh, as C, D, next below, which is composed of ten chromatic degrees, thus—



The intervals, therefore, comprising the major second and minor seventh, reckoned together, make up the number nine diatonically, and that of twelve chromatically.

3. The augmented second, as C natural, D sharp, next above, composed of three chromatic degrees, produces, by inversion, the diminished seventh, as C natural and D sharp, next below, which is the complement of the octave, and composed of nine chromatic degrees.

Intervals of thirds, of which there are four species, produce by inversion sixths of the same number and species, thus—

1. The diminished third, as C sharp, and E flat, the use of which is strictly forbidden excepting upon enharmonic occasions, is composed of two chromatic degrees, and produces, by inversion, the augmented sixth, which is composed of ten chromatic degrees, and used instead of the diminished third;

2. The minor third, as C natural, and E flat, composed of three chromatic degrees, produces by inversion the major sixth, as C and E flat next below, which is composed of nine chromatic degrees;

3. The major third, as C natural, and E natural, next above, composed of four chromatic degrees, produces by inversion the minor sixth, which is composed of eight chromatic degrees, as C natural, and E natural, next below;

4. The augmented third, as C natural, and E sharp, composed of five chromatic degrees, produces by inversion the diminished sixth, as C natural, and E sharp, next below, which is composed of seven chromatic degrees.

Intervals of fourths, of which there are three species, produce by inversion fifths of the same number and species, thus:—

1. The diminished fourth, as C natural, F flat, composed of four chromatic degrees, produces, by inversion, the augmented fifth, as C sharp, F

flat, next below, which is composed of eight chromatic degrees;

2. The perfect fourth, as C natural, F natural, composed of five chromatic degrees, produces, by inversion, the perfect fifth, as C, and F, next below, which is composed of seven chromatic degrees;

3. The augmented fourth, as C natural, F sharp, next above, composed of six chromatic degrees, produces, by inversion, the diminished fifth, which is also composed of six chromatic degrees.

Intervals of fifths, of which there are three species, produce, by inversion, fourths of the same number and species; thus—

1. The diminished fifth, as C natural, G flat, next above, composed of six chromatic degrees, produces, by inversion, the augmented fourth, as C natural, and G flat, next below, which, as before stated, is composed of six chromatic degrees;

2. The perfect fifth, as C natural, G natural, next above, composed of seven chromatic degrees, produces, by inversion, the perfect fourth, as C natural, G natural, next below, which is composed of five chromatic degrees;

3. The augmented fifth, as C natural, G sharp, next above, composed of eight chromatic degrees, produces, by inversion, the diminished fourth, as C natural, and G sharp, next below, which is composed of four chromatic degrees.

Intervals of sixths, of which there are four species, produce, by inversion, thirds of the same number and species, thus—

1. The diminished sixth, as C sharp, A flat next above, composed of seven chromatic degrees, produces, by inversion, the augmented third, as C sharp, A flat, next below, which is composed of five chromatic degrees:

2. The minor sixth, as C natural, A flat, next above, composed of eight chromatic degrees, produces, by inversion, the major third, as C natural, A flat next below, which is composed of four chromatic degrees:

3. The major sixth, as C natural, A natural, next above, composed of nine chromatic degrees, produces, by inversion, the minor third, as C natural, A natural, next below, which is composed of three chromatic degrees.

4. The augmented sixth, as C natural, A sharp, composed of ten chromatic degrees, produces, by inversion, the forbidden interval of the diminished third, as C natural, A sharp, next below, which is composed of two chromatic degrees.

Intervals of sevenths, of which there are three species, produce, by inversion, seconds, thus—

1. The diminished seventh, as C sharp, B flat, next above, composed of nine chromatic degrees, produces, by inversion, the augmented second, as C sharp, and B flat, next below, which is composed of three chromatic degrees;

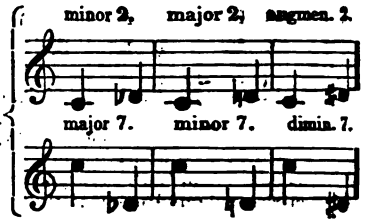
2. The minor seventh, as C natural, B flat, next above, produces, by inversion, the major second, as C natural, B flat next below, which is composed of two chromatic degrees.

3. The major seventh, as C natural, B natural, composed of eleven chromatic degrees, produces, by inversion, the minor second, which is composed of one chromatic degree.

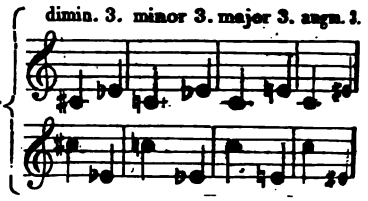
Unisons, as C C, become, by inversion, octaves, as C, C, next above.

The following is a general table of the intervals explained in the foregoing pages.

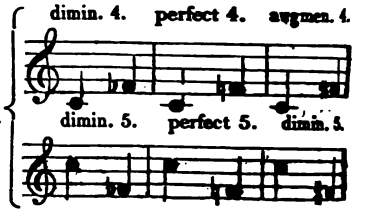
Seconds produce, by inversion, sevenths.



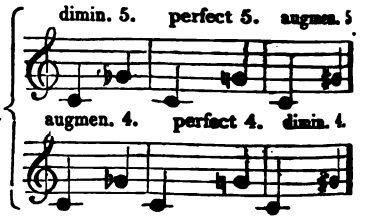
Thirds produce, by inversion, sixths.



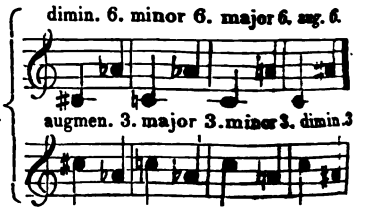
Fourths produce, by inversion, fifths.



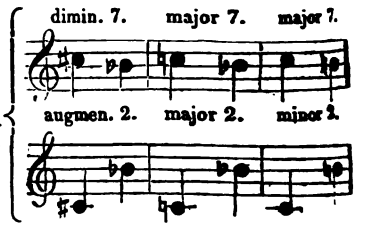
Fifths produce, by inversion, fourths.



Sixths produce, by inversion, thirds.

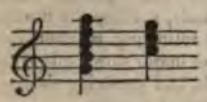


Sevenths produce, by inversion, seconds.

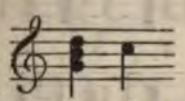


Intervals of which the notes serve to show the number of degrees composing them are consonant and dissonant.

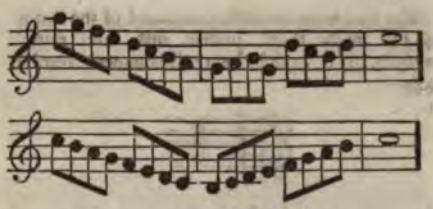
Minor and major thirds and sixths, in the composition of melody or harmony, being of themselves either way satisfactory to the ear, which is the umpire of all musical sounds, are distinguished by the appellation of imperfect consonances; fourths, fifths, and octaves, are denominated perfect consonances, because, by the alteration of either of them by a sharp or flat, they are immediately rendered unsatisfactory to the ear. These and all other chromatic intervals are dissonant, as is the case with seconds and sevenths; and the fourth of the diatonic scale when forming an integral part of the dominant harmony of the seventh; and the sixth, when forming that of the dominant ninth, are also regarded as dissonances requiring to be regularly resolved into the perfect harmony of the Tonic, thus—



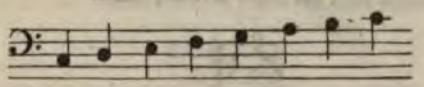
Upon these simple combinations of different sounds, the first of which must be considered the cause, and the last the effect of that cause, the whole science of harmony depends: the powers of the first providing, by the application of a flat, or a sharp, taken in totality, or in part, for every species of harmonic combination used in the present day; as the materials of the latter provide, by the occasional application of a flat to its third note, every sound proper for the resolution of the dissonances arising, directly, or indirectly, from the harmony of the dominant ninth. Thus the lowest note of the foregoing example of the harmony of the dominant ninth, called the dominant root, accompanied only by the major third, and fifth, thus—G B D, affords the modes of the tonic major, perfect harmony C E G; but although the materials of which these intervals are composed be absolutely the same, their effects as employed in succession are of a widely different nature, the first governing entirely the key note of the second which is C, the key note of the passage, thus—



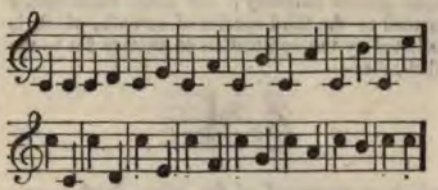
It follows therefore of consequence that every note composing the dominant harmony of the ninth must be considered and treated as a dissonance, excepting the root G: the A cadencing or falling upon G, the F upon E, the D upon C, the B cadencing or rising to C, i. e. from necessity, or according to the principles as established by nature: the G, which is common to both harmonies, forms the link by which they are united. From this simple process, of which the tonic, or key note, C, may be said to be the centre of gravity, upon which all other sounds resolve, we obtain the model and origin of the twelve major diatonic scales; all other major scales being only transpositions of this natural, or primary order of sounds, viz.



The diatonic major scale, also the Ionian scale of the ancient Greeks,



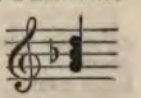
the intervals of which are inverted, both by notes and figures, in the following manner, viz.



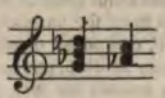
1 2 3 4 5 6 7 8
8 7 6 5 4 3 2 1

consisting of five tones and two half tones, the latter falling between the third and fourth, and seventh and eighth intervals. We postpone other considerations of this diatonic scale till we have developed the whole of the harmonic powers of the dominant ninth.

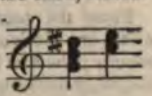
The application of the sign of a flat to the third of the dominant root, thus—



forms the model of the perfect minor harmony; and the same union of different sounds, varied by the addition of another flat, constitutes the softest of all discords, which is the harmony of the minor third and diminished fifth; the acute, as well as the middle, sound forming a dissonance, both of which must be regularly resolved, and in the following manner, viz.

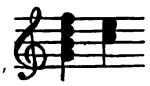


Varying this third dominant combination of sounds, i. e. by placing the sign of a sharp to the highest sound, and omitting the two flats, we have the harmony of the major third and augmented fifth, when the fifth forms the principal dissonance, requiring, together with the third, resolution into perfect harmony, thus.

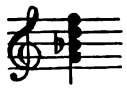


From the harmony of the dominant ninth we have therefore derived four species of combinations of thirds and fifths. From the same source we also derive four species of the harmony of, or belonging to, the seventh viz.

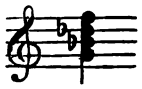
The dominant seventh, composed of the union of the major third, perfect fifth, and minor seventh, all of which, being dissonances, resolve thus—



the application of a flat to the third of the preceding harmony produces the seventh of the second species, composed of the minor third, perfect fifth, and minor seventh, thus—

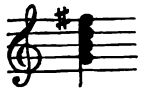


each of which requires, sooner or later, resolution into perfect harmony; the same observations extend to the third species of seventh, which is effected by the application of another flat to the fifth, thus—



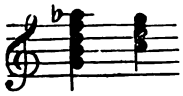
which is composed of the minor third, imperfect fifth, and minor seventh.

The fourth and last species of seventh is produced by raising the seventh interval one half tone, and omitting the flats to the third, and fifth, thus—

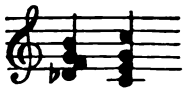


called the harmony of the major seventh, composed of the major third, perfect fifth, and major seventh, which is the harshest of all discords.

Proceeding still by the system of thirds, we obtain the dominant major ninth composed of the major third, perfect fifth, minor seventh, and major ninth, all of which are dissonant, as before explained (see page 291.) By the application of a flat to the ninth interval of this harmonic combination, we have the harmony of the dominant minor ninth, composed of the major third, present fifth, minor seventh, and minor ninth, the whole of which sounds are also dissonant, and resolve in the following manner, viz.—



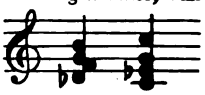
From the harmony of the dominant minor ninth are derived two other combinations of sounds; the first is composed of the harmony of the major third, augmented fourth, and augmented sixth, which is effected by lowering the perfect fifth one-half tone, and omitting the note constituting the minor ninth, when the two gravest notes, as dissonances, descend one degree each, and the highest note ascends as usual, thus—



G is the root of the discord still, though D flat is termed the bass, because sung by the deepest voice, or played by a bass instrument; the second combination consists of the harmony of the major third, perfect fifth, and augmented sixth, when all intervals are dissonant, resolving sooner or later into perfect harmony, thus—

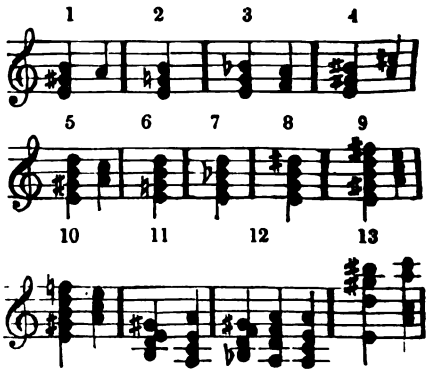
i. e. one after another, for reasons hereafter to be explained. It will be seen that this combination of dissonant sounds is the same as the dominant minor ninth, with the exception of having the perfect fifth one degree, and omitting the root. The last harmonic combination of sounds, making the thirteenth, is expressed in the following manner, consisting of the union of the major third, minor seventh, and augmented fifth, and resolving thus—

It must be observed that the resolutions of the various dissonant harmonies, arising from the dominant ninth, may be immediately effected in minor as well as major perfect harmonies, with the exception of Nos. 4, 8, and 13. The dissonances, therefore, of No. 11, may also resolve in the following manner, viz.—



when the key-note of the passage is denominated C minor.

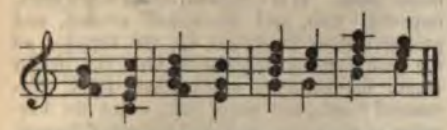
The fundamental principles of every possible variety of harmonic combination, constituting natural harmony, and as affects the major scale, being fully developed, the following table will suffice for the description of those appertaining to the scale of the relative minor, viz.—



Remarks upon the respective powers of the foregoing dissonant and consonant harmonies, and of the situations they occupy in the diatonic major and minor scales.

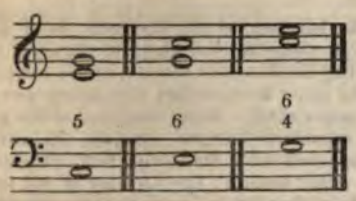
It has undoubtedly been remarked that the notes composing the several tonic harmonies, introduced for the proper resolution of the dis-

sonances, occupy different situations upon the staff, and that without changing their names, they produce variety of effect, thus—

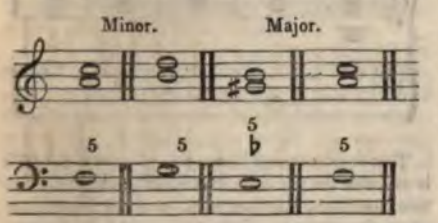


i. e. according to the positions of the dissonances preceding them. These different situations of perfect harmonies are called inversions, which is also the case with the dissonant or imperfect ones, when the notes of the sixth, the octave, and seventh, alternately form the acute or melodic part, and the lowest, consisting of harmonic roots, form the bass. Harmonic combinations of intervals, therefore, are susceptible of inversion as well as intervals, thus :

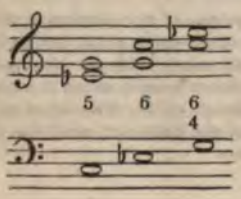
The major perfect harmony, composed of the same materials as explained No. 1, i. e. of the major third and perfect fifth, is capable of two inversions, viz. the harmony of the minor third and minor sixth; and the harmony of the perfect fourth and major sixth, thus—



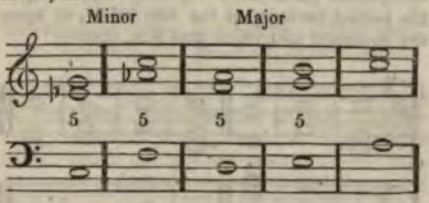
The figure 5 is an abbreviation of the 3d, 5th, and 8th; the 6th an abbreviation of the 3d, 6th, and 8th; and the $\frac{6}{4}$ that of the 4th, 6th, and 8th. The perfect major harmony is placed upon the tonic, the subdominant or fourth, and the dominant or 5th, of the major mode; also upon the 5th and 6th of the minor mode, thus—



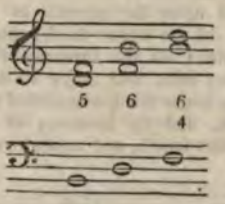
The minor perfect harmony, composed of the minor third, and perfect fifth, is also capable of two inversions, viz. the harmony of the major third and major sixth, and the harmony of the perfect fourth, and minor sixth, thus :—



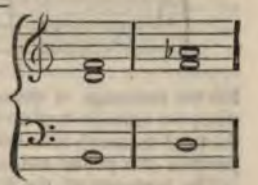
The perfect minor harmony is placed upon the tonic and fourth of the minor mode; and upon the second, third, and sixth of the major mode, thus—



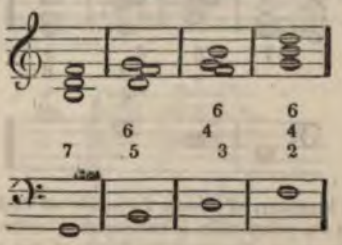
The harmony of the diminished fifth, composed of the same materials as No. 3, is capable also of two inversions; producing the harmony of the minor third and major sixth, and the harmony of augmented fourth and major sixth, thus—



The imperfect harmony of the diminished fifth requires no preparation, and is placed upon the seventh of the major, and the second of the minor mode, thus:—



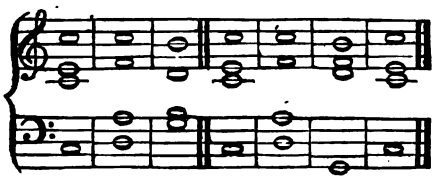
For the resolutions of these dissonances, see example 1, Music, plate I. Harmonies of sevenths, consisting of four notes, necessarily produce three inversions; thus the harmony of the dominant seventh, composed of the major third, perfect fifth, and minor seventh, produces the harmony of the minor third, diminished fifth, and minor sixth; the harmony of the minor third, perfect fourth, and major sixth; and the harmony of the major second, augmented fourth, or triton, and the major sixth; thus showing at the same time the situations they occupy in the scale, viz.



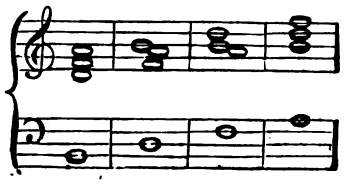
the resolutions of these different harmonies are explained in examples 4, 5, 6, and 7, plate I.

The harmony of the seventh of the second species (No. 6), with the exception of the minor third, is the same as the foregoing combination of different sounds, and is susceptible of the same

number of inversions; it is placed upon the second degree of the major mode; the seventh interval must be prepared, and the whole of the component parts must regularly resolve upon the perfect harmony of the fifth below, or upon the dominant seventh of that fifth, thus—

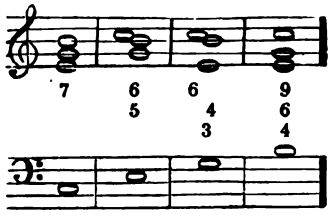


The harmony of the seventh of the third species (No. 7) is called that of the seventh of the sensible of the major mode, and composed of the minor third, diminished fifth, and minor seventh; it is placed upon the seventh of the major, and second of the minor mode, and produces three inversions, viz. the harmony of the minor third, perfect fifth, and major sixth; the harmony of the major third, augmented fourth, and major sixth; and the harmony of the major second, perfect fourth, and minor sixth, thus—



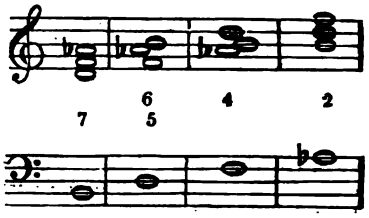
For the resolution of these harmonic combinations, see example 8, plate I. When the bass of the third specimen rises one degree for the preparation of a perfect cadence.

The harmony of the fourth species (No 7), composed of the harmony of the major third, perfect fifth, and major seventh, produces also three inversions, viz. the harmony of the minor third, perfect fifth, and minor sixth; the harmony of the major sixth, major third, and perfect fourth; and the harmony of the perfect fourth, minor sixth, and major second, thus—

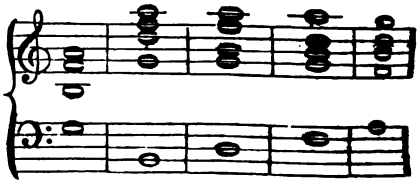


This harmony, of which the whole of its inversions are practicable, is employed upon the sixth of the major, also upon the fourth of the minor scale: the seventh must be prepared: see example 9, plate I.; but, that its extreme asperity may be qualified, an immediate succession of the other three species of sevenths is required, as in example 10, plate I.

The harmony of the diminished seventh is composed entirely of minor thirds, and is also denominated the seventh of the sensible of the minor mode. It is composed of the minor third, imperfect fifth, and diminished seventh, and produces three inversions, viz. the harmony of the minor third, diminished fifth, and major sixth; the harmony of the minor third, augmented fourth, and major sixth, called the harmony of the triton; and the harmony of the augmented second, augmented fourth, and major sixth. The whole of these intervals resolve upon the harmony of the tonic, and they are treated in every respect the same with those of the dominant seventh, thus—

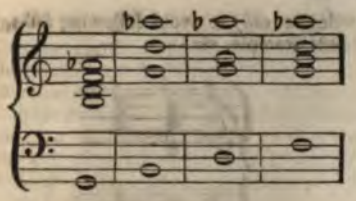


The harmony of the dominant major ninth (No. 9) comprises the whole of the notes constituting the dominant seventh, and is composed of the major third, perfect fifth, minor seventh, and major ninth. Being composed of five notes it is capable of four inversions, viz. the harmony of the minor third, diminished fifth, minor sixth, and minor seventh; the harmony of the minor third, perfect fourth, perfect fifth, and major sixth; the harmony of the major second, minor third, augmented fourth, and major sixth; and the harmony of the major second, perfect fourth, minor sixth, and minor seventh, thus—



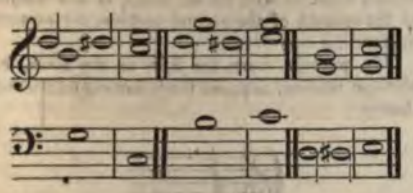
This fundamental harmony, of which the fifth is omitted for the sake of a more grateful resolution, resolves, together with its three inversions, upon the harmony of the tonic; and, in the employment of this combination of sounds, the root of which is generally dispensed with, care must be taken to place its component parts at a considerable distance from each other; the last inversion only must be prepared, see example 12, plate I.

The harmony of the dominant minor ninth, composed of the major third, perfect fifth, minor seventh, and minor ninth, is also generally employed without its root, when it consists simply of the materials of the diminished seventh; the harmony of the dominant ninth has three inversions, thus—

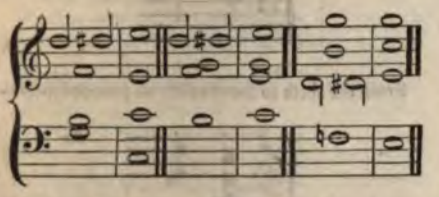


See example 13, plate 1.

The harmony of the major third, and augmented fifth, is placed upon the dominant of each of the modes; it has two inversions, viz.



The harmony of the augmented fifth, with the minor seventh, produces only one inversion, thus:



the second, on account of the forbidden interval of the diminished third, being nowise practicable.

The harmony of the augmented sixth, major third, and perfect fifth, the eleventh of the classification, is employed in the formation of perfect cadences, but always upon the sixth degree of the scale. See example 15.

The harmony of the augmented fourth, and augmented sixth, and major third (No. 12), requires preparation as in example 16.

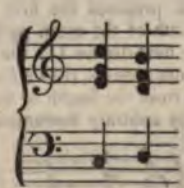
It has undoubtedly been observed that, as intervals are of themselves consonant and dissonant, harmony, which consists of the union of these intervals, must also be consonant or dissonant; that all dissonances which are essential, as producing variety, activity, and strength of character, must resolve, sooner or later, into consonances, minor or major, that the ear may be relieved from the harsh effects of dissonances; also that the different sounds and combinations of sounds we have been endeavouring to describe in the foregoing pages are capable of being reduced to nine notes. These may be again reduced to seven primary ones. As, therefore, in painting, we may blend the original colors as much as we please towards the production of another color; all the possible variety of tints being only different combinations of the seven primary colors as they are separated by a prism; so all the variety of 'melting sounds' which enchant us, must consist in a different succession, or in a different union, of some of these seven natural notes, or their replications or varieties; such are the boundaries of these applications of sight and hearing.

Application of the foregoing observations, as applied to the Diatonic Major Scale.

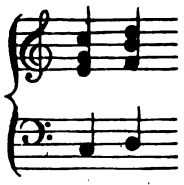
As the major diatonic scale is composed of tones and half tones, it follows that the same figures, if placed upon its different degrees, would produce different species of harmonic combinations; thus by the application of the figures 3, 5, 8, upon those degrees, we obtain three major perfect harmonies, three minor perfect harmonies, and one imperfect harmony, corresponding to Nos. 1, 2, and 3; the first accompanying the tonic, dominant, and subdominant; the second accompanying the second, third, and sixth of the mode; and the last accompanying the major seventh of the scale (see example 17): the figures 3, 5, 7, produce one dominant seventh; three harmonies of sevenths of the second species; one of the third species of seventh; and two of the fourth species of seventh, corresponding to Nos. 4, 5, 6, and 7 (see example 18). The creation of this mode is explained page 289. The accompaniment given to it by Viedana will serve to show the different movements of parts required in the construction of counterpoint, as also the laws whereby two or more perfect harmonies are made to succeed each other with propriety and effect.

In counterpoint or harmony, no two fifths, nor two octaves, are allowed to succeed each other; the former because exceedingly offensive to cultivated ears, and the latter not only offensive but productive of no result. These are avoided by the occasional doubling of some intervals, and of rejecting others; also in the observance of the rules appertaining to the four different species of movements of parts: viz. direct movement, when each part ascends or descends together; oblique movement, when one part ascends or descends during the time another remains stationary; contrary movement, which is the best, each part moving contrarywise; and parallel movement, each part remaining upon the same degree See example 19.

From these premises, in the accompaniment of the scale in four parts, as figured by Ludovico Viadana, the contrary movement must be taken in passing from the first to the second degree of the scale, thus—



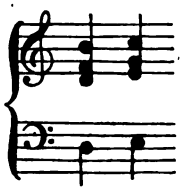
i. e. to avoid two following fifths, and octaves in the outer parts producing greater strength of character than the following treatment possesses, viz.—



which is strictly forbidden on account of the octaves.

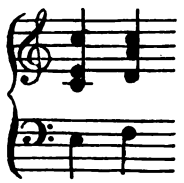
The passage from the second to the third is effected by direct movement in the outer parts, in the following manner, viz.—

i. e. by omitting the octave and doubling the sixth to avoid two inner octaves thus—



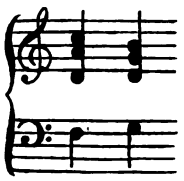
which is highly objectionable, and offensive to the ear, independently of the improper treatment of the minor third; which, in reality, being a minor dominant seventh, descends one degree. Thus the harmony of the sixth accompanying the second of the scale, does not take its root from the third, but the fifth below.

The passage from the third to the fourth of the scale must be effected obliquely, thus—

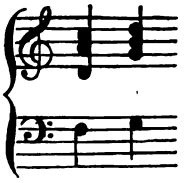


when the sixth prepares the fifth in the acute part, and the sixth of the mean part cadences to the sixth of the next degree D; the octave E, to avoid direct inner octaves, rises a fourth to A.

The passage from the fourth to the fifth of the scale is made by contrary movement, thus—

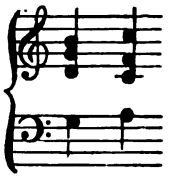


in order not only to avoid following fifths, as in the next example, viz.—

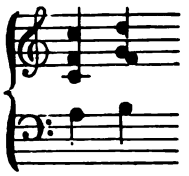


but to give the proper resolution of the C, which, together with its harmony, is an example of the seventh of the second species, the seventh descending one degree.

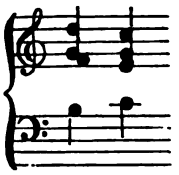
The passage from the fifth to the sixth, for obvious reasons, requires the following treatment, thus—



From the sixth to the seventh we proceed thus—



and from the seventh to the octave thus—



As the major sixth was introduced upon the descending third interval of Viadana's harmonized scale, the diminished fifth may with equal propriety be introduced upon the ascending third degree of that scale. See examples 21 and 22. These contrivances aptly display the means whereby we modulate from the key of C into others of immediate affinity. For example, the diminished fifth, accompanying the third of the scale, may be invariably considered and treated as a dominant seventh, for the purpose of establishing the subdominant of the mode as a new key instead of the original one, as the major sixth, accompanying the descending third interval of the scale, may be similarly employed to bring about the dominant of the mode, as a new key. See examples 23 and 24.

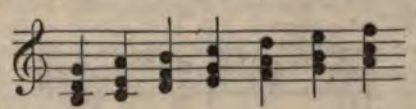
For about a century and a half previous to the publication of the celebrated Treatises of Choron, Catel, Momogny, and Reicha, Viadana's harmonised scale formed the foundation of all musical theories, excepting those by Rameau and Tartini. Of late, by men celebrated at once as composers and theorists of the first order, this scale has however been found, not only inefficient for the explanation of many points relative to the science, but as placing restrictions of an unnecessary description upon the inventions of genius: the study of the powers of the dominant, together with their different operations upon the tonic, being alone sufficient to guide the student in his description of the various harmonic combinations of sounds, as derived from the unerring principles of nature. Indeed Reicha declares the scale of no importance whatever, but as showing the positions upon which the different harmonies are placed.

But although, in general practice, consecutive fifths and octaves are forbidden, instances of their successful employment may be found in works of classical reputation; these, principally of a melodic description, are explained in the 25th and following examples.

Thus the hidden fifths and octaves, in examples 25 and 26, are correct specimens of writing: the upper note of the former example ascending or descending, one degree, and the bass of the latter descending a fifth. In a melodic view the treatment of the F, in example 27, holds good, when the bass descends a fourth, and the melodic note descends a minor third. A perfect fifth may be followed by a diminished fifth, but on no account must a diminished fifth be followed by a perfect one. The octaves in example 28 are disallowed, but the consecutive fifths in the following one are frequently met with in the works of Haydn, Mozart, and Handel. These same observations extend to the employment of the fifths and octaves in examples 30 and 31: the fifth of each being considered as melodic notes, or appoggiature. The example 33 is a correction of the one numbered 32.

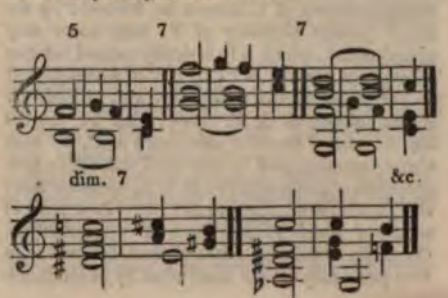
Most airs are capable of a melodic, a dominant, and a model accompaniment; they are also susceptible of a variety of basses. To be understood upon this subject, we will select the two first measures only of the simple tune of Robin Adair, the familiarity of which will, perhaps, enable us more effectually to display the whole force of harmonic accompaniment than any composition we could devise for that purpose. The example 34 is one of melodic harmonisation, that of 35 is of a modal description, and that of 36 of a dominant one. As we describe only the elements of music and not those of genius, to decide upon the preference of either of these arrangements were, here, uncalled for. Suffice it, however, to say that the second is an artful, and the last a natural arrangement. The cadencing of the F of the first measure upwards being contrary to nature, the example 37 is inferior to the one marked 34. The example 38 is also contrary to nature, the first C in the melody of the second measure not belonging to the subdominant of the scale. To produce variety of expression, airs are occasionally accompanied a third above the notes composing them, as in example 38, where the thirds proceeding throughout the passage, show, to a demonstration, that the C of the example 37 belongs to the tonic harmony only. This observation is doubly verified in example 39, i. e. according to the principles of nature, where the bass note, continuing throughout the two measures constitutes a dominant pedal bass, as the example 35 constitutes a tonic pedal bass. The example 40 comprises the whole of the materials of musical science, consequently of all the notes of which an air may be ornamented or colored; these notes, which are situated between those of the dominant and tonic description, come under the denomination of melodic, or passing notes, also of essential and unessential notes; and they are capable, by prolongations, &c., of being varied ad infinitum. See example 43.

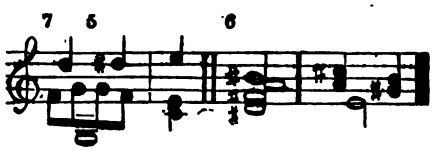
After what has been said upon the necessity of regularly resolving all dissonances, it may be asked why do the ninth, the seventh, and the fourth occasionally take different directions to those allotted them in theory, as also the following progressions of sounds, most grateful to the ear, yet in direct opposition to all the principles laid down by the most eminent theorists of the past and the present age?



Such is the imperfection of all human endeavours that, in our efforts to describe these several combinations of sound, and of their operations upon each other, all our scientific rules, and our boasted principles of philosophy, at once desert us; and, as in many other sciences derived from nature, there are certain points beyond our comprehension, we can only confess, however humiliating, that inasmuch as these deviations from established rules are of themselves of the most grateful description to the ear, which, after all our speculations is the sole test of musical science, they must be admitted into practice.

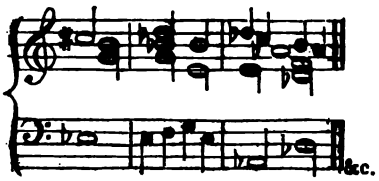
Besides these instances of deviations from established rules we cite, from the works of Haydn, Bach, Handel, Mozart, Beethoven, and Hummel, the most satisfactory examples of dissonances ascending one degree previous to their dissolution into perfect harmony; they are however, easily understood, and highly interest the feelings; of these the diminished fifth, minor seventh, augmented sixth, and diminished seventh form the principal features, viz.—





The method of writing contained in the last of these specimens is becoming obsolete; the interval of the diminished seventh being used, in all late works of established excellence, to express the nature and qualities of the augmented sixth, when placed in the highest part, as in the fourth of the foregoing specimens. But care must be taken not to confound the principles of this optional mode of writing with those appertaining to intervals, or, more properly speaking, transitions of an enharmonic nature, which, as will be presently shown, are totally of an opposite description.

An enharmonic transition consists of a succession of two notes of the same sound to the ear, but which, in order to bring about other means than can possibly be effected by the adoption of the augmented sixth, or diminished seventh alone, are placed upon two different degrees of the staff, thus; cadencing into the key of A flat, viz.—

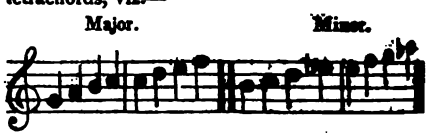


whereas the augmented sixth, as also the diminished seventh, which are the means by which enharmonic transitions are effected, ascending a minor semitone, effect a cadence into the key of B-flat. See examples 49 and 50. The example 51 is a specimen from Catel; the bottom line shows the roots of the different harmonies.

Great doubt has existed in the minds of many theorists of reputation as to the proper progression of perfect harmonies, without the admixture of governing or imperfect ones. Reicha, to whom we are indebted for much valuable information, has set this point at rest in his work Cours complet d'Harmonie et Composition, from which we extract the following golden rules upon the subject.

Bass notes, accompanied with the major third and fifth, as C, may descend a fifth to F, major or minor, but, for obvious reasons, the perfect minor harmony of C cannot be followed by the major perfect harmony of F; bass notes may also descend, which is technically termed inferior movement, a fourth as C, G, below, accompanied as perfect harmonies; they may also proceed by thirds inferior as C, A, below; also by fourths above, termed superior movement as C, F, next above, accompanied by the third and fifth; progressions of sixths superior as G E, are allowable: also those of fifths superior as C G. In a piece of music of which the key has been well established, as for example C, two perfect harmonies in four parts may follow each other by seconds, superior, or inferior, as C D, or D C, i. e. from the first to the second degree of the scale; from the fourth to the fifth degree, or vice versâ, as F G, G F; and also from the fifth to the sixth, or from the sixth to the fifth degree, as G A, or A to G, accompanied with the third and fifth, the whole of which must be effected by contrary movement. But these last three cases must be considered rather as exceptions and therefore the less frequently to be employed. Fundamental basses proceeding a third superior, or, which is the same thing, a sixth inferior, appear to blend less freely than other successions, but they cannot be entirely excluded from practice. To render them agreeable, care must be taken that the perfect harmony, as applied to the third of the scale, be followed by the perfect harmony of the fifth below, as in examples 41 and 42.

Upon the subject of the accompaniment, and even of the formation of the minor scale, much variety of opinion still exists. Rameau, from the difficulty of accounting for its origin (see Sound), and of the proper mode of accompanying it, declares that the scale has no foundation in nature, and that the whole system, together with the minor third, is a production only of human industry. Momigny ingeniously describes the minor and major systems by the following tetrachords, viz.—



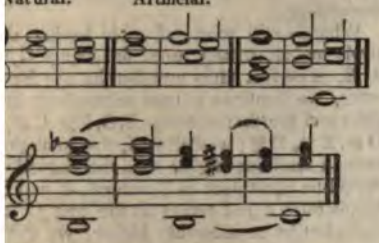
a principle, it must be confessed, never to be disproved. Some will maintain that the notes constituting the minor sixth and major seventh should be heard ascending as well as descending the minor scale, and, notwithstanding the anomaly of three half tones in the octave and the ascent of the minor sixth to the major seventh by an interval of a tone and a half, such are the arguments in support of it, that the system must not be suffered to be passed over unnoticed. But, according to the principles of harmony hitherto established, the minor sixth descends a diminished seventh to amalgamate with the harmony of the dominant, as in example 51. This, together with the fact that the harmony of the ascending major sixth tends to establish the key note of the minor mode, shows that the example 49 must be considered as the generally received harmonised minor scale.

Upon the subject of the modern modes, and of the variety of opinions expressed as to the construction of the minor mode, we may derive, as in many other sciences, a salutary lesson from the ancient Greeks, who, being doubtless acquainted with the peculiar powers of the major sixth and minor sixth, as applied to the minor scale, adopted different modes to express them in a proper manner. See page 267 of our history. Pythagoras, it should seem, gave his whole attention to the formation of the minor scale, considering the major one as sufficiently explaining itself.

The principles constituting natural harmony being fully developed, a few observations will

e for the explanation of those constitut- rtificial harmony, which consists of pro- tions, anticipations, syncopations, &c., and be simple or compound, thus—

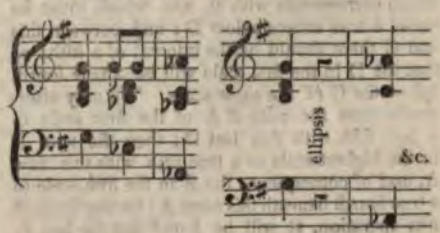
Natural. Artificial.



copations are in general retardations of ls, and are always placed upon the unac- d parts of the measure, the last note of h must correspond with the rest preceding rst note of the syncopated passage, which be of long or short duration. See example Anticipations differ from prolongations, sharp and D sharp, in the second mea- of the last example, anticipating the disso- accompaniment given to the C in the ving measure. These examples require no er explanation. Pedal notes, accompanying us combinations of sounds, alternately ng integral parts of them, come under the mination of artificial harmony (see example when the C forms a central dominant pedal. nances may be transformed into conso- s throughout a succession of measures. In ple the seventh, B flat (46) becomes trans- d into a major third to resolve D C instead ; as the major seventh, the natural progres- of which is upwards, becomes transformed a minor seventh, resolving upon A, example

r remarks upon the powers of the flat and , as applied to the accompaniment of the r scale of C, page 295, have tended to show rinciples by which dominant and subdomi- modulations are effected. By a similar ss, i. e. of raising the sixth one-half tone in ccompaniment of the descending second of ale, a change is effected into the relatio-mi- f C, viz. A minor. See example 63. When, the case of the dominant and subdominant ulation, the alteration of the minor sixth into jor one constitutes the major third of the nant or governing harmony. All modula- are effected by these means. It must, ver, be understood, that although these nant harmonies do govern, they are not of selves sufficient to establish the mode of a of music; this is left to the powers of the h of the scale to effect, as in the examples ly cited. The established formation of the ct cadence; viz. by means of the harmony e dominant and unprepared fourth of the is considered so far effected, that, should composer feel disposed to lengthen the d, he has only the option of interrupting adence by superseding the major resolution relative minor one, or by giving an inversion major resolution, as in examples 55, 56, 57, and 58. These are the modulations by which Haydn, Mozart, and all the Italian masters up to the time of Cimarosa, have immortalised themselves. Thus in music, as in works of a literary nature, the best composer is the one who effects the most upon the least materials. The youthful composer will do well to keep this in mind, as also, that, in proportion to the want of genius to invent natural melody and pure harmony, the greater are always the efforts to modulate into the most extraneous keys, and to string together the crudest combinations, as if music should rather be seen through the medium of art than of nature. We do not, however, pretend to confine the subject of modulation within the pale of the dominant, subdominant, and relative minor of the primitive key of a piece of music. Haydn, in the commencement of the second parts of many of his works, the place allotted for the display of musical science, has produced through the medium of lengthened sounds, and intervening harmonies, the most extraordinary yet pleasing modulations. The general rule adopted by Strebelt, Hammel, Dussek, and other sonata writers (capriccios and fantazias are out of the question), seems to consist of two keys on each side of the tonic, or their relative minors, making a range of sounds of five keys to work upon. For example, a sonata commences with the tonic or primitive key; the intervals of the key of D are employed to bring about the dominant of the primitive key, for the establishment of the demi-cadence, at the end of the first part, which is G; the ending of the second part being, in all cases, a transposition of the first part, the intervals belonging to the keys of B flat and F natural are expressed for the re-establishment of the primitive key, as also for the formation of a perfect cadence.

Any key may follow a perfect cadence, provided the tonic of the established key form an integral part of the dominant harmony immediately governing the new key. Whether this connecting harmony be or be not expressed is perfectly immaterial, an ellipsis in all similar cases being understood and felt, as in the following popular example—



The flats tending to neutralise the powers of the sharp in the example 42, no transition is effected from the key. All false relations, as in example 59, must be avoided. See FUGUE, CANON, and COUNTERPOINT.

The study of the works of Haydn will, perhaps, best explain the manner in which musical composition should be conducted.

In addition to the names already mentioned, we insert a list of other composers not less distin-

guished, whose works will ever be considered as models of taste and expression.

Albrechtsberger.	Knecht.
Astorga.	Leo.
Bach, Sebastian.	Lotti.
Bach.	Mozart.
Boccherini.	Marcello.
Bassani	Neefe.
Bishop.	Paradies.
Cramer.	Pleyel Ignace.
Clementi.	Palestrina.
Corelli.	Purcell.
Cimarosa.	Perez.
Caldara	Pergolese.
Clari	Porpora.
Durante.	Romberg.
Dussek.	Righini.
Gluck.	Scarlati.
Gretry.	Steibelt.
Haydn.	Sola.
Himmel.	Rink.
Hummel.	Sterkel.
Handel.	Winter.
Haessler.	Weigle.
Hasse.	Woelfl.
Jomelli.	Viotti.
Jackson.	Zingarelli.
Hozeluck.	

Of Temperament.—The alterations which we have observed in the intervals between particular sounds of the diatonic scale, naturally lead us to speak of temperament. To give a clear idea of this, and to render the necessity of it palpable, let us suppose that we have before us an instrument with keys, a pianoforte, for instance, consisting of several octaves or scales, of which each includes its twelve semitones. Let us choose in that pianoforte one of the strings which will sound the note C, and let us tune the string G, to a perfect fifth with U T in ascending; let us afterwards tune to a perfect fifth with this G the D which is above it; we shall evidently perceive that this R E will be in the scale above that from which we set out; but it is also evident that this D must have in the scale a D which corresponds with it, and which must be tuned a true octave below D; and between this and G there should be the interval of a fifth; so that the D in the first scale will be a true fourth below the G of the same scale. We may afterwards tune the note E A of the first scale to a just fifth with this last D; then the note E in the highest scale to a true fifth with this new A, and of consequence the E in the first scale to a true fourth beneath this same A: having finished this operation, it will be found that the last E, thus tuned, will by no means form a just third major from the sound G; that is to say, that it is impossible for E to constitute at the same time the third major of C and the true fifth of A; or, what is the same thing, the true fourth of A in descending.

What is still more, if, after having successively and alternately tuned the strings C, G, D, A, E, in perfect fifths and fourths one from the other, we continue to tune successively by true fifths and fourths the strings E, B, F ♯, C ♯, G ♯, D ♯, E ♯, B ♯; we shall find, that, though G ♯, being a semitone higher than the natural note, should be equivalent to C natural, it will by no means form a just octave to the first C in the scale, but be considerably higher; yet this B ♯ upon the harpsichord ought not to be different from the octave above U T; for every B ♯ and every C is the same sound, since the octave in the scale only consists of twelve semitones.

From thence it necessarily follows, 1. That it is impossible that all the octaves and all the fifths should be just at the same time, particularly in instruments which have keys, where no intervals less than a semitone are admitted. 2. That, of consequence, if the fifths are justly tuned, some alteration must be made in the octaves; now the sympathy or sound which subsists between any note and its octave does not permit us to make such an alteration; this perfect coalescence of sound is the cause why the octave should serve as limits to the other intervals, and that all the notes which rise above or fall below the ordinary scale are no more than replications, i. e. repetitions, of all that have gone before them. For this reason, if the octave were altered, there could be no longer any fixed point either in harmony or melody. It is then absolutely necessary to tune the C or B ♯ in a just octave with the first: whence it follows that, in the progression of fifths, or, what is the same thing, in the alternate series of fifths and fourths, C, G, *re*, A, E, B F ♯, C ♯, G ♯, D ♯, A ♯, E ♯, B ♯ it is necessary that all the fifths should be altered, this will be effected by flattening the successive fifths, beginning with C, which has previously been made in unison with the tuning fork, and taking G D A E B F sharp, C sharp, G sharp, D sharp, A sharp, and E sharp, as flattened fifths, care being taken that this flatness be equally divided among them. One may satisfy himself that this is correctly done if the C coincides with the B sharp without alteration as a fifth to E sharp. In the tuning of organ pipes, on account of their beatings when too flat or too sharp, a partial system of temperament must be observed. The less frequent their beats the more perfect their tune.

MUSIS (Augustine de), a noted engraver, better known by the name of Agostino Veneziano, or Augustin the Venetian, was a native of Venice, and scholor of Raimondi. His first dated print appeared in 1509. After the death of Raphael, in 1520, Agostino, and Marc de Ravenna, his fellow disciple, separated and worked upon their own account. Agostino's latest prints are dated 1536; whence it is supposed he did not long survive that period. He imitated the style of his master, and was the most successful of all his scholars; though in taste and in correctness of outline he fell short of him.

MUSK, *n. s.* } Pers. *mushk*; Arab. *mooshk*;
MUSK-CAT, } Fr. *musc*; Ital. *musco*; Lat.
MUSK'Y, *adj.* } *muscus*. An oriental perfume. See below. The musk-cat is an animal which yields it.

Some putrefactions and excrements yield excellent odours; as civet and *musk*. *Bacon.*

Musk is a dry, light, and friable substance of a dark blackish colour, with some tinge of a purplish or blood colour in it, feeling somewhat smooth or unctuous: its smell is highly perfumed, and too strong to be agreeable in any large quantity: its taste is bitterish: it is brought from the East Indies, mostly from the kingdom of Bantam, some from Tonquin and Cochin China: the animal which produces it is of a very singular kind, not agreeing with any established genus: it is of the size of a common goat, but taller: the bag which contains the *musk* is three inches long and two wide, and situated in the lower part of the creature's belly. *Hill.*

In May and June come roses of all kinds, except the *musk*, which comes later. *Bacon.*

There eternal summer dwells,
And west winds, with *musky* wing,
About the cedar'd allies fling
Nard and Cassia's balmy smells. *Milton.*

MUSK. See MOSCHUS. According to Tavernier, the best and greatest quantities of musk come from the kingdom of Boutan, whence it is carried for sale to Patna, the capital of Bengal. After killing the animal the peasants cut off the bag, which is about the size of an egg, and is situated nearer the organs of generation than the navel. They next take out the musk, which has then the appearance of clotted blood. When they want to adulterate it, they put a mass of the animal's blood and liver into the place of the musk they had extracted. Others, after extracting a portion of the musk, put in small pieces of lead to augment the weight. But the deceit is still worse to discover, when, of the skin taken from the belly of a young animal, they make little bags, which they sew so dexterously with threads of the same skin, that they resemble genuine bags. These they fill with what they take out of the genuine bags, and some fraudulent mixture, which it is extremely difficult for the merchants to detect. When the bags are sewed immediately on their being cut, without allowing any part of the odor to dissipate in the air, after they have abstracted as much of the musk as they think proper, if a person applies one of these bags to his nose, blood will be drawn by the mere force of the odor, which must necessarily be weakened or diluted to render it agreeable without injuring the brain. Our author brought one of the animals with him to Paris, the odor of which was so strong that it was impossible for him to keep it in his chamber. It made every head in the house giddy; and he was obliged to put it into a barn, where the servants at last cut away the bag: the skin, notwithstanding, always retained a portion of the odor. The largest musk-bag seldom exceeds the size of a hen's egg, and cannot furnish above half an ounce of musk; three or four of them are sometimes necessary to afford a single ounce. In one of his voyages to Patna, Tavernier purchased 1663 bags, which weighed 1557½ oz.; and the musk, when taken out of the bags, weighed 452 oz. Musk affords the strongest of all known odors; a small quantity of it perfumes a large quantity of matter. The odor of a small particle extends through a considerable space. It is likewise so fixed and permanent, that at the end of several years it seems to have lost no part of its activity. When it comes to us it is dry, with a kind of unctuosity of a dark reddish-brown, or rusty blackish color, in small round grains, with very few hard clots, and perfectly free from any sandy or other visible foreign matter. If chewed and rubbed with a knife on paper it looks smooth, bright, yellowish, and free from bitterness. Laid on a red hot iron, it catches flame, and burns almost entirely away, leaving only an exceedingly small quantity of light grayish ashes: if any earthy substances have been mixed with the musk, the quantity of the residuum will readily discover them. Musk has a bitterish subacrid taste: a fragrant smell, agreeable at a distance, but, when smelt near to, so strong as to be disagreeable unless weakened by the admixture of other substances. If a small quantity be infused in spirit of wine in the cold for a few days, it imparts a deep, but not a red tincture: this, though it discovers no great smell of the musk, is nevertheless strongly impregnated with its virtues; a single drop of it communicates to a whole quart of wine a rich musky flavor. The degree of flavor which a tincture drawn from a known quantity of musk communicates to vinous liquors is perhaps one of the best criteria for judging of the goodness of this commodity. Neumann informs us that spirit of wine dissolves ten parts out of thirty of musk, and that water takes up twelve; that water elevates its smell in distillation, whilst pure spirit brings over nothing. Musk is a medicine of great esteem in the eastern countries; among us it has been for some time entirely neglected as a perfume. The medicinal and chemical properties of musk and castor are very similar; the virtues of the former are generally believed to be more powerful, and hence musk is preferred in cases of imminent danger. It is prescribed as a powerful antispasmodic, in doses of three grains or upwards, even to half a drachm, in the greater number of spasmodic diseases, especially in hysteria and singultus, and also in diseases of debility. In typhus it is employed to remove subsultus tendinum, and other symptoms of a spasmodic nature. In cholera it frequently stops vomiting; and, combined with ammonia, it is given to arrest the progress of gangrene. It is best given in the form of bolus. To children it is given in the form of enema, and is an efficacious remedy in the convulsions

arising from dentition. It is also given in hydrophobia, and in some forms of mania.

MUS'KET, *n. s.* Span. and Port. *mosquete*; Fr. *mousquet*; Ital. *moschetto*; qu. Lat. *myxa*, a match? A hand gun; also a small kind of male hawk, from which Dr. Johnson and others suppose the gun to be named: a musketeer is one who uses a musket: musketoon, an old name for the blunderbuss: musketry, a modern collective name for a number of muskets, or musketeers.
MUSKETEER',
MUSKETOON',
MUS'KETRY.

Thou
Wast shot at with fair eyes, to be the mark
Of smoky *muskets*.
Shakspeare. All's Well That Ends Well.

We practise to make swifter motions than any you have out of your *muskets*. *Bacon.*

Here comes little Robin.
—How now my eyas *musket*, what news with you?
Shakspeare.

When they came near the gate of the town-house, they within poured out a volley of *musket*-shot upon them, by which the dean of the church and two or three of the magistrates of the town were killed. *Clarendon.*

He perceived a body of their horse within *musket* shot of him, and advancing upon him. *Id.*

Notwithstanding they had lined some hedges with *musketeers*, they pursued them till they were dispersed. *Id.*

They charge their *muskets*, and, with hot desire
Of full revenge, renew the fight with fire. *Waller.*

The *musket* and the coystrel were too weak,
Too fierce the falcon; but, above the rest,
The noble buzzard ever pleased me best. *Dryden.*

One was brought to us, shot with a *musket*-ball on the right side of his head. *Wiseman's Surgery.*

MUSKET, or MUSQUET, is properly a fire-arm borne on the shoulder, and used in war; formerly fired by the application of a lighted match but at present with a flint. The length of the barrel is fixed to three feet eight inches from the muzzle to the touch pan: its bore is such as may receive a bullet of fourteen in a pound, and its diameter differs not above one-fiftieth part from that of a bullet. The common musket is of the calibre of twenty-two balls to the pound; and receives balls from twenty-two to twenty-four. Muskets were anciently borne in the field by the infantry, and were used in England so lately as the beginning of the civil wars. At present they are little used, except in the defence of places; fusees or fire-locks having taken their place and name.

Muskets were first used at the siege of Rhegen 1521. The Spaniards were the first who armed part of their foot with these weapons. At first they were very heavy, and could not be used without a rest. They had match-locks and did execution at a great distance. On their march the soldiers carried only the rests and ammunition, having boys to bear their muskets after them. They were very slow in loading, not only by reason of the unwieldiness of their pieces, and because they carried the powder and ball separate, but from the time it took to prepare and adjust the match, so that their fire was not near so brisk as ours is now. Afterwards a lighter match-lock musket came in use; and they carried their ammunition in bandeliers, to which were hung several little cases of wood covered with leather, each containing a charge of powder. The muskets with rests were used as late as the beginning of the civil wars in the time of Charles I. The lighter kind succeeded them, and continued till the beginning of the eighteenth century, when they also were disused, and the troops throughout Europe armed with fire-locks. These are usually made of hammered iron. For the dimensions, construction, and practice of various species of guns, muskets, &c., see ARTILLERY, CANNON, GUN, MORTAR, and PROJECTILES.

Garrard, Art of Warre, observes, that the musket differed from the arquebuse in carrying a double bullet. The inconsiderable execution done by pieces of small calibre probably occasioned the introduction of the musket, or mousquet, which originated in Spain in the sixteenth century. The fame of the Spanish infantry having extended itself over all civilised Europe, the English were not long before they adopted this new weapon from their enemies. It consequently dispossessed the harquebuss. Little short wooden arrows, called sprites, were shot from them with great success. Grose says, that in 1621 the barrel was to be four feet long, capable of receiving bullets ten or twelve to the pound. Coryatt mentions the muskets of the the French king's guards as being inlaid with ivory and bone, a very common fashion with old fire-arms. They were suspended by belts at least as early as the time of Charles I. Dr. Meyrick on Armour, ii. 41. Branstone says that it was the duke of Alva who first brought the musket into use, when he went to take upon him the government of the Low Countries in the year 1569, and that Strozzi, colonel-general in the French infantry, under Charles IX., introduced it into France. He also tells us, that the best arquebuses were made at Milan. Ibid. Grose says, that muskets were made as early as the time of Francis I. but were not in common use till 1567 or thereabouts. Andrews supposes them to have been used at the battle of Bicoigne in 1521, which Henry (x. 285) applies to the musket on a stock, and discharged from the shoulder, but agrees in the period, adding, that it was probably soon after adopted in England.

It was the length and weight of the first musket which rendered it necessary to place it, when fired, on the fork called a rest. It came from the mounted harquebusiers in the reign of Charles V. Meyrick iii. 41. According to De Bellay (adds Dr. M.) rests had been provisionally used for the harquebus, but I have met with no representation of the rest before the time of Elizabeth, and conceive that he must allude to those for the cavalry, on the principle of the lance rests, fastened by a hinge to the breast-plate. Ibid. It was of various lengths, according to the height of the men, and shod with sharp iron ferules for sticking into the ground. When on the march, and the musket was shouldered, the rests were carried in the right hand, or hung upon it by a string or loop tied under the head. Sometimes these rests were armed with a kind of sword-blade, or tuck, called a swine's feather, which, being placed before the musketeer when loading, served to keep off cavalry. The origin

of the swine's feather is thus explained. In the latter part of the reign of James I.,' says Dr. Meyrick, 'some attempts were made to convert the rest into a defence against cavalry. Martels-de-fer and small pole-axes had a tuck enclosed in them, which, by touching a spring, opened a small valve and sprung out. The rest, instead of having a wooden shaft, was now made of a thin tube of iron, like those pole-axes which were covered with leather, and armed with a tuck in the same manner. Rests thus armed were said to contain Swedish, or swine's feathers; perhaps from sweyn, German, a wild boar, i. e. a boar's bristle. During the Protectorate rests were disused. The first muskets were match-locks. The origin of the bayonet, has, however, a connexion with the swine's feather. The duke of Albemarle, in the time of Charles II., recommended arming the musketeers and dragoons with muskets having swine's feathers with the heads of rests fastened to them. The swine's feather was to be in a sheath, so as to serve like a tuck in walking sticks, but capable of being drawn out and fixed in the muzzle of a gun. Turner, however, who wrote in 1670, observes, that this and the other apparatus were only awkward contrivances to protect the musketeer against cavalry after he had fired, and before he had re-loaded. The swine's feather rest being thus laid aside, and the swine's feather itself being awkward to manage, such soldiers as were armed with daggers were induced to stick them into the muzzles of their pieces. This gave origin to the bayonets, which were first made at Bayonne. They were called by the French bayonets à manche, and introduced into their army in 1671. They were formed with tight handles, to fit well into the muzzles, and rather enlarging towards the base, to prevent their entering too far into the piece. A Military Dictionary of 1694 calls the bayonet a dagger stuck into the piece by men who covered the musketeers when they were to fire. In order to allow the piece to be fired, and preserve the use of the dagger, it was next fastened by two rings to the barrel; lastly, by a socket, as now. It superseded the pike.

The principal part of these instruments is the barrel, which ought to have the following properties: 1. Lightness, that it may incommode the person who carries it as little as possible. 2. Sufficient strength and other properties requisite to prevent its bursting by a discharge. 3. It ought to be constructed in such a manner as not to recoil with violence. And, 4. It ought to be of sufficient length to carry the shot to as great a distance as the force of the powder employed is capable of doing. The force of gunpowder is manifestly augmented in close vessels, by being compressed together; but this arises from another cause, namely, that a greater quantity of flame is compressed in the same space, than when the powder is not rammed; and this compression of the flame is in proportion to the compression of the powder in the piece. But the quantity enclosed in a small space may probably make up for the quality. In firing muskets with small shot, a curious circumstance sometimes occurs, viz. that the grains, instead of being equally distributed over the space they strike are thrown in clusters of ten, twelve, fifteen or more; whilst several considerable spaces are left without a grain in them. Sometimes one-third or one-half of the charge will be collected into a cluster of this kind; nay, sometimes, though much more rarely, the whole charge will be collected into one mass, so as to pierce a board nearly an inch thick at the distance of forty or forty-five paces. Small barrels are said to be more liable to this clustering than large ones; and M. de Marolles informs us, that this is especially the case when the barrels are new, and likewise when they are fresh washed; though he acknowledges that it did not always happen with the barrels he employed even after they were washed. It is probable, therefore, that the closeness of the shot depends on some circumstance relative to the wadding rather than to the mechanism of the barrel

The *manufacture* of fire-arms is now carried to such a degree of perfection by different European nations, that it may perhaps justly be doubted whether any farther improvement in the requisites just mentioned can be made. For the materials the softest iron that can be procured is to be made use of. The best in this country are formed of stubs, as they are called, or old horse-nails; which are procured by gunsmiths from farriers, and from poor people who subsist by picking them up on the great roads leading to London. These are sold at about 10s. per cwt. and 28 lbs. are requisite to form a single musket barrel.

The method of *manufacturing* musket barrels is as follows:—A hoop of about an inch broad, and six or seven inches diameter, is placed in a perpendicular situation, and the stubs, previously well cleaned, piled up in it with their heads outermost on each side, till the hoop is quite filled and wedged tight with them. The whole then resembles a rough circular cake of iron; which being heated to a white heat, and then strongly hammered, coalesces into one solid lump. The hoop is now removed, and the heatings and hammerings repeated till the iron is rendered very tough and close in the grain; when it is drawn out into pieces of about twenty-four inches in length, half an inch or more in breadth, and half an inch in thickness. Four of these pieces are employed for one barrel; but in the ordinary way a single bar of the best soft iron is employed. The workmen begin with hammering out this into the form of a flat ruler, having its length and breadth proportioned to the dimensions of the intended barrel. By repeated heating and hammering, this plate is turned round a tempered iron rod called a mandril, the diameter of which is considerably smaller than the intended bore of the barrel. One of the edges of the plate being laid over the other about half an inch, the whole is heated and welded by two or three inches at a time, hammering it briskly, but with moderate strokes, upon an anvil which has a number of semicircular furrows in it, adapted to barrels of different sizes. Every time the barrel is withdrawn from the fire, the workman strikes it gently against the anvil once or twice in an horizontal direction. By this operation the particles of the metal are more perfectly

consolidated, and every appearance of a seam in the barrel is obliterated. The mandril being again introduced into the cavity of the barrel, the latter is very strongly hammered upon it in one of the semicircular hollows of the anvil, by small portions at a time; the heatings and hammerings being repeated until the whole barrel has undergone the operation, and its parts rendered as perfectly continuous as if they had been formed out of a solid piece. To effect this completely, three welding heats are necessary when the very best iron is made use of, and a greater number for the coarser kinds. The next operation in forming the barrels is boring them, which is done thus:—Two beams of oak, each about six inches in diameter, and six or seven feet long, are placed horizontally and parallel to one another; having each of their extremities mortised upon a strong upright piece about three feet high, and firmly fixed. A space of three or four inches is left between the horizontal pieces, in which a piece of wood is made to slide, by having at either end a tenon let into a groove, which runs on the inside of each beam throughout its whole length. Through this sliding piece a strong pin or bolt of iron is driven or screwed in a perpendicular direction, having at its upper end a round hole large enough to admit the breech of the barrel, which is secured in it by a piece of iron that serves as a wedge, and a vertical screw passing through the upper part of the hole. A chain is fastened to a staple in one side of the sliding piece which runs between the two horizontal beams; and, passing over a pulley at one end of the machine, has a weight hooked on it. An upright piece of timber is fixed above this pulley and between the ends of the beams, having its upper end perforated by the axis of an iron crank furnished with a square socket; the other axis being supported by the wall, or by a strong post, and loaded with a heavy wheel of cast iron to give it force. The axes of this crank are in a line with the hole in the bolt. The borer, being then fixed into the socket of the crank, has its other end, previously well oiled, introduced into the barrel, whose breech part is made fast in the hole of the bolt; the chain is then carried over the pulley, and the weight hooked on; the crank being then turned with the hand, the barrel advances as the borer cuts its way, till it has passed through the whole length. The boring bit consists of an iron rod somewhat longer than the barrel, one end of which fits the socket of the crank; the other is adapted to a cylindrical piece of tempered steel about an inch and a half in length, having its surface cut like a perpetual screw, with five or six threads, the obliquity of which is very small. The breadth of the furrows is the same with that of the threads, and their depth sufficient to let the metal cut by the threads pass through them easily. Thus the bit gets a very strong hold of the metal; and the threads, being sharp at the edges, scoop out and remove all the inequalities and roughness from the inside of the barrel, and render the cavity smooth and equal throughout. A number of bits, each a little larger than the former, are afterwards successively passed through the barrel in the same way, until the bore has acquired the magnitude intended. By this operation the barrel is very much heated, especially the first time the borer is passed through it, and is apt to warp. To prevent this, in some measure, the barrel is covered with a cloth kept constantly wetted, which not only preserves the barrel from an excess of heat, but likewise preserves the temper of the bit from being destroyed. The borer itself must also be withdrawn from time to time; both to clean it from the shavings of the metal and to oil it, or repair any damages it may have sustained. Every time a fresh bit has been passed through the barrel, the latter must be carefully examined, to see if it has warped; and likewise if there are any spots, by the workmen called blacks, on its inside. When warped, it must be straightened on the anvil; for which a few slight strokes on the convex part will be sufficient; and this is termed setting up the barrel. When black spots are perceived, the corresponding part on the outside must be marked, and driven in by gentle strokes with the hammer, when they will be completely removed by passing the borer another time through the piece. The equality of the bore is of the utmost consequence to the perfection of a barrel; insomuch that the greatest possible accuracy in every other respect will not make amends for any deficiency in this respect. The method used by gunsmiths to ascertain this is by a cylindrical plug of tempered steel highly polished, about an inch in length, and fitting the bore exactly. This is screwed upon the end of an iron rod, and introduced into the cavity of the barrel, where it is moved backwards and forwards; and, the places where it passes with difficulty being marked, the borer bit is repeatedly passed until it moves with equal ease through every part. Any person who wishes to know the merit of his piece in this respect, may do it with tolerable accuracy by means of a plug of lead cast on a rod of iron; or even by a musket-ball filed exactly to the bore, and pushed through the barrel by a ramrod; taking care, however, not to use much force lest the ball be flattened, and its passage thus rendered difficult. The last step towards the perfection of the inside of the barrel is termed fine-boring; by which is meant the smoothing it in such a manner as to remove all marks and inequalities left by the borer. The fine borer resembles the other in its general construction; but, instead of the piece of steel cut in form of a screw which belongs to that, it is furnished with a square broach ten or twelve inches long, highly polished, and very sharp, by which means it cuts the metal very smoothly. It answers the purpose best when only two of its edges are allowed to work; the other two are covered with slips of oiled paper, one or more additional slips being put on each time that the instrument is passed through the barrel. The fine borer is frequently passed through, from the muzzle to the breech, and from the breech to the muzzle, until the whole inside presents a perfectly equal and polished surface, the barrel being likewise examined and set up, if requisite, after each time. It is absolutely necessary that this instrument should be perfectly true, and not in the least cast or warped in the tempering.

Besides the operations above described, another, called *polishing*, is usually performed on gun barrels, though it is doubtful whether this last be attended with any good effect or not. It is performed by a cylinder of lead, five or six inches long, cast upon a rod of iron, and filed exactly to the bore. The lead, being then covered with very fine emery and oil, is wrought backwards and forwards through the whole length of the barrel, until the inside has acquired the requisite degree of polish. The disadvantages of this operation are, that it is scarce possible to perform it without pressing more upon one part than another, and thus producing some degree of inequality on the inside, which is of the very worst consequence to fire-arms. The polish thus given is likewise very perishable; so that the fine-boring may justly be considered as the last operation necessary for the inside of a barrel; and it is then proper to give the external form and proportions by a file. For this purpose four faces are first formed upon it, then eight, then sixteen; and so on till it be quite round, excepting the part next the breech, called the reinforced part, which is always left of an octagonal form. It being absolutely necessary that the barrel should be equally thick on every side, gunsmiths employ, for accomplishing this purpose, a particular tool named a compass. This consists of an iron rod bent in such a manner as to form two parallel branches about an inch from one another. One of these is introduced into the barrel, and kept closely applied to the side by one or more springs with which it is furnished; the other descends parallel to this on the outside, and has several screws passing through it with their points directed to the barrel. By screwing these until their points touch the surface of the barrel, and then turning the instrument round within the bore, we perceive where the metal is too thick, and how much it must be reduced, in order to render every part perfectly equal throughout its circumference. It may be made long enough to reach the whole length of the barrel, though it will be more convenient to have it only half as much, and to introduce it first at one end and then at the other. Instead of rounding the barrel by means of a file and compass, however, some people do so by turning it in a lathe; which is no doubt more expeditious, though neither so certain nor exact. A spindle as long as a gun-barrel cannot, without great difficulty, be prevented from springing considerably under the tool employed to reduce or smooth it in turning; whence it is found, that by this operation barrels are more frequently warped than by all the borings they undergo; and there is now this farther inconvenience, that they cannot be set up as formerly, without danger of destroying them entirely. The barrels being thus bored and formed externally, it is customary with the gunsmiths in France to solder on the loops and aim before they breech the barrel. The English, however, do not restrict themselves in this manner; for, as soft solder is sufficient for fastening on these, they never use any other; while the French, who use hard solder, must of consequence employ a great heat. Thus the inside is roughened sometimes so considerably, that it is necessary to repeat the fine-boring; which cannot be done without injuring the threads of the screw formed for the breach, if the barrel were prepared for the latter without soldering on the former. The first tool used in forming the breech-screw is a plug of tempered steel, somewhat conical, with the threads of a male screw upon its surface, and by the workmen termed a screw-tap. This being introduced into the barrel, and worked from left to right and back again, until it has marked out the four first threads of the screw, another less conical tap is introduced; and, when this has carried the impression of the screw as far as it is intended to go, a third one, nearly cylindrical, is made use of, scarcely differing from the plug of the breech intended to fill the screw thus formed in the barrel. The plug itself has its screw formed by a screw-plate of tempered steel, with several female screws, corresponding with the taps employed for forming that in the barrel; seven or eight threads are a sufficient length for a plug: they ought to be neat and sharp, so as completely to fill the turns made in the barrel by the tap. The breech plug is then to be case-hardened, or to have its surface converted into steel, by covering it with shavings of horn, or the parings of the hoofs of horses, and keeping it for some time red hot; after which it is plunged in cold water. The only thing now requisite for completing the barrels is to give them a proper color; as a preparation for which their outside is first to be neatly polished with oil and emery. This being done, it was formerly the custom to give such a degree of heat as would make them blue throughout; but as this cannot be effected without a partial calcination of the surface, which of consequence affects the inside also, the blue color has been for some time disused, and a brown one substituted in its place. To give this color, the pieces are first rubbed over with aquafortis or spirit of salt diluted with water; after which they are laid by till a complete coat of rust is formed upon them; a little oil is then applied; and the surface, being rubbed dry, is polished by a hard brush and bees' wax. Thus the common musket-barrels for the purposes especially of sportsmanship are made; but there are some other methods of manufacture, by which the barrels are made to differ in some respects from those just described, and are thought to be considerably improved. One kind of these are called twisted barrels; and by the English workmen are formed out of the plates made of stubs. Four of these are requisite to make one barrel. One of them, heated red hot for five or six inches, is turned like a cork-screw by the hammer and anvil; the remaining parts being treated successively until the whole is turned into a spiral, forming a tube, the diameter of which corresponds with the bore of the intended barrel. Four are generally sufficient to form a barrel of the ordinary length, i. e. from thirty-two to thirty-eight inches; and the two which form the breech or strongest part, called the reinforced part, are considerably thicker than those which form the muzzle or fore part of the barrel. One of these tubes is then welded to a part of an old barrel to serve as a handle; after which the

turns of the spiral are united by heating the tube two or three inches at a time to a bright white heat, and striking the end of it several times against the anvil, in a horizontal direction, with considerable strength, which is called jumping the barrel; and the heats given for this purpose are called jumping heats. The next step is to introduce a mandril into the cavity, and to hammer the heated portion lightly, in order to flatten the ridges or burs raised by the jumping at the place where the spirals are joined. As soon as one piece is jumped throughout its whole length, another is welded to it, and treated in the same manner, until the four pieces are united, when the part of the old barrel is cut off, as being no longer of any use. The welding is repeated three times at least, and is performed exactly in the same manner as for plain barrels; and the piece may afterwards be finished according to the directions already given.

The operation for the *twisted barrels* is very different from that just mentioned, and much more exceptionable. It consists in heating the barrel by a few inches at a time to a strong red heat; one end is then screwed into a vice, and a square piece of iron with a handle like an auger is introduced into the other. By these the fibres of the heated portion are twisted into a spiral direction, which is supposed to resist the effort of the inflamed powder better than the other. To render this operation complete, however, it must be observed, that when once the several portions of the barrel have been twisted, the subsequent heats ought not to be very great, or the grain of the metal will regain its former state, and the barrel be no better for the twisting than before. To twist a barrel in this manner, also, it will be necessary to forge it at least half a foot longer than it is intended to be, that a sufficient length may be kept cold at each end to give a sufficient purchase to the vice and twisting instrument; and these portions must afterwards be cut off before the barrel is bored, or two pieces of an old barrel may be welded to the muzzle and breech of that which is to be twisted, and cut off when the operation is over. These pieces may also be made stronger than usual to resist the force of the vice and twisting instrument; and, to give the latter a firmer hold, the cavity of the muzzle may be made of a square form. The English workmen are unanimously of opinion that this method of twisting is really injurious to the barrel, by straining the fibres of the metal. At any rate, from the injudicious methods followed by the French artists, the greatest part of their barrels, said to be twisted, are not so in reality; there being at least six or seven inches at the muzzle, and seven or eight at the breech, which are not affected by the operation. The French ribbon barrels have a great resemblance to the English twisted ones; but the process for making them is much more operose, though it seems not to possess any real advantage. A plate of iron, about the twelfth part of an inch in thickness, is turned round a mandril, and welded its whole length like a plain barrel. Upon this slight barrel, which is called the lining, a plate of iron about an inch in breadth, and bevelled off at the edges, is by means of successive heats rolled in a spiral direction; after which it is termed the ribbon, and must have a thickness corresponding with that part of the barrel which it is to form. As it would, however, be difficult to form a ribbon of sufficient length for the whole barrel, it is made in several pieces; and, when one piece is rolled on, another is welded to its end, and the operation continued until the lining be entirely covered. The edges are so much bevelled that the one folds over the other about a quarter of an inch. After the ribbon is all rolled on, the barrel must be heated by two or three inches at a time, and the turns of the spiral united to each other and to the lining, by being welded in the same manner as the twisted barrel; though it is plain that the operation of jumping cannot be admitted. The barrel is afterwards bored in such a manner that almost the whole of the lining is cut out, and scarcely any thing left but the ribbon with which the lining was covered. The superiority of twisted and ribbon barrels over the plain kind gave occasion to a third sort, named wired barrels. These were invented by an ingenious workman at Paris, named Barrois; whose method was as follows:—Upon a thin barrel, filed and dressed as usual, he rolled, as closely as possible, and in a spiral direction, a tempered iron wire about the thickness of a crow quill, the first layer covering only the reinforced part. The turns of the wire were soldered to each other, and to the barrel, with a composition which he kept a secret. The wired part was then filed smooth and bright, but not so much as to weaken it; a second layer of wire was applied over the first, extending two-thirds of the length of the barrel; and this being smoothed and brightened like the first, a third layer was applied, which covered the two former, and reached quite to the muzzle. The barrels made after this manner are supposed to be superior to others, but it is certain that wire is not preferable to other iron as a material for gun-barrels; and the solder used by M. Barrois, in a quantity nearly equal to the wire itself, must be accounted a defect; for no metal is equal to iron for strength: so that by the use of solder in the composition of the barrel, it must be undoubtedly weaker than if it had been all made of iron.

Spanish barrels have long been held in great estimation, both on account of their being formed of better iron than those of other countries, and likewise from an opinion of their being more perfectly forged and bored. Those made at Madrid are the best, and even of these such as have been made by former gunsmiths are in the greatest estimation. The most celebrated Spanish gunsmith was Nicolos Biz, who lived in the beginning of the last century, and died in 1728; and the barrels fabricated by him in the former part of his life are held in great estimation. Those of his contemporaries, John Bela and John Fernandez, are no less valued; all of their barrels selling in France at 1000 livres or £45 15*s.* sterling. Almost all the Madrid barrels are composed of the old shoes of horses and mules, and manufactured first by welding longitudinally, and then being joined together in four or five pieces like the English barrels. In this opera-

tion an immense waste of the iron takes place; but that of the Spanish iron is by far the greatest, a mass of forty or forty-five pounds being required to make one barrel, which, when rough from the forge, weighs only six or seven pounds; so that from thirty to thirty-eight pounds are lost in the hammerings. It may be doubted whether the iron be really purified by this waste; for it is certain that by long continued working in the fire it may be rendered totally useless. The Spanish artists likewise value themselves on giving the inside of their barrels a very high polish; but, in the opinion of good judges, it is better to take a barrel immediately after it has undergone the operation of fine-boring, than to give it any higher polish. M. de Marolles, an author of great reputation, says, he has seen a barrel, rough from the borer, throw a charge of shot deeper into a quire of paper, than one which was highly polished within, though the length, bore, and charge, were the same in both. As the Spanish iron is universally allowed to be excellent, it is probable that the superiority of the Spanish barrels is owing more to the goodness of the materials than to the skill of the workmen. Instead of making the plates overlap a little, in the place where they join, they give one of them a complete turn; so that every Spanish barrel may be said to be double throughout its whole length. The different portions of the iron are likewise so forged, that the grain of the iron is disposed in a spiral manner; whence it has the same effect with a ribbon or twisted barrel. The outside is finished by turning them in a lathe; whence they are less elegantly wrought than the French and English pieces. Formerly they were made from three feet to three feet and a half long; their bore being such as to admit a bullet from twenty-two to twenty-four in the pound; and their weight from three pounds to three pounds and a half. The reinforced part extends two-fifths of the length; and at ten or twelve inches from the breech is placed a sight, such as is usually put upon the rifle-barrels, or those intended only for ball. According to Espinas, arquebuss-bearer to Philip IV., the weight of a Spanish barrel ought to be four pounds and a half when their length is forty-two inches: but both weight and length are now much reduced. Next to the barrels made at Madrid, the most esteemed are those of Bustindui, and St. Olabe at Placentia in Biscay; and of John and Clement Padwestevo, Eudal Pous, and Martin Marechal, at Barcelona; the usual price being about £3 10*s.* sterling. The principal modern improvement in the manufacture of muskets is the percussion lock, for which see PERCUSSION.

Having described the method of forging barrels, we proceed to give an account of those *imperfections* to which they are sometimes liable, and which render them apt to burst or recoil with violence. The principal of these are the chink, crack, and flaw. The first is a small rent in the direction of the length of the barrel; the second across it; and the third is a kind of scale or small plate adhering to the barrel by a narrow base, from which it spreads out like the head of a nail from its shank, and, when separated, leaves a pit or hollow in the metal. The chink and flaw are of much worse consequence than the crack in fire-arms, the force of the powder being exerted more upon the circumference than the length of the barrel. The flaw is much more frequent than the chink, the latter scarcely ever occurring but in plain barrels formed out of a single plate of iron, and then only when the metal is deficient in quality. When flaws happen on the outside, they are of little consequence; but in the inside they are apt to lodge moisture and foulness, which corrode the iron, and thus the cavity enlarges continually till the piece bursts. This accident, however, may arise from many other causes besides the defect of the barrel. The best pieces will burst when the ball is not sufficiently rammed home, so that a space is left between it and the powder. A very small windage or passage from the inflamed powder between the sides of the barrel and the ball, will be sufficient to prevent the accident; but if the ball has been forcibly driven down with an iron ramrod, so as to fill up the cavity of the barrel very exactly, the piece will almost certainly burst, if only a very small space be left between it and the powder; and the greater the space is, the more certainly does the event take place. Of this Mr. Robins gives a remarkable instance, accounting at the same time for the phenomenon:—'A moderate charge of powder,' says he, 'when it has extended itself through the vacant space, and reaches the ball, will, by the velocity each part has acquired, accumulate itself behind the ball, and will thereby be condensed prodigiously; whence, if the barrel be not of an extraordinary strength in that part, it must infallibly burst. The truth of this I have experienced in a very good Tower musket forged of very tough iron; for, charging it with twelve pennyweights of powder, and placing the ball loosely sixteen inches from the breech, on the firing of it, the part of the barrel just behind the bullet was swelled out to double its diameter, like a blown bladder, and two large pieces, of two inches in length, were burst out of it.' A piece will frequently burst from having its mouth stopped up with earth or snow; which sometimes happens to sportsmen, when, in leaping a ditch, they have assisted themselves with their fowling-piece, putting the mouth of it to the ground. And a musket will certainly burst, if it be fired with the muzzle immersed only a very little way in water. It will also burst from an overcharge; but, when it bursts in other circumstances, it is to be attributed to a defect in the workmanship, or in the iron. These defects are principally an imperfection in the welding, a deep flaw having taken place, or an inequality in the bore; which last is the most common of any, especially in low-priced barrels. The reason of a barrel's bursting from an inequality in the bore is, that the elastic fluid, set loose by the inflammation of the powder, and endeavouring to expand itself in every direction, being repelled by the stronger parts, acts with additional force against the weaker, and bursts through them, which it would not have done had the sides been equally thick throughout. With regard to defects arising from the bad quality of the iron, as the choice of the materials depends entirely on the gunsmith, the

only way to be assured of having a barrel made of proper metal is to purchase it from an artist of reputation, and to give a liberal price. The recoil of a piece becomes an object of importance only when it is very great; for every piece recoils in some degree when it is discharged. The most frequent cause of an excessive recoil is an inequality in the bore of the barrel; and by this it will be occasioned even when the inequality is too small to be perceived by the eye. The explanation of this upon mechanical principles indeed is not easy: for, as it is an invariable law that action and reaction are equal, we should suppose that every time a piece is discharged it should recoil with the whole difference between the velocity of the bullet and that of the inflamed powder. The cause to which too great a recoil in muskets has been usually attributed, is the placing of the touch-hole at some distance from the breech plug; so that the powder is fired about the middle, or towards its fore part, rather than at its base. To avoid this, some artists form a groove or channel in the breech plug as deep as the second or third turn of the screw: the touch-hole opening into this channel, and thus firing the powder at its very lowest part. It appears, however, from a number of experiments made upon this subject by M. le Clerc, gunsmith to the late king of France, that it made very little difference with regard to the recoil, whether the touch-hole was close to the breech or an inch distant from it. The only circumstance to be attended to with respect to its situation therefore is, that it be not quite close to the breech-plug; as in such a case it is found to be more apt to be choked up than when placed about a quarter of an inch from it.

The only other circumstance to be determined with regard to musket-barrels is their proper *length*. Formerly it was supposed that the longer they were made, the greater would be the distance to which they carried the shot, and that without any limitation. This opinion continued to prevail till about sixty years ago, when it was first proposed as a doubt whether long barrels carried farther than short ones. With regard to cannon, indeed, it had long before this time been known that they might be made too long. Balthazar Killar, a celebrated cannon-founder under Louis XIV., when asked by Mons. Suriry de St. Remy, why the culverin of Nancy, which is twenty-two feet long, did not carry a ball equally far with a shorter piece? he replied, that 'the powder, when inflamed, ought to quit the cavity of the piece in a certain time, in order to exert its whole force upon the bullet: by a longer stay, part of the force is lost; and the same cause may produce an inequality in the shots, by giving a variation to the bullet, so as to destroy its rectilineal force, and throw it to one side or other of the mark.' Mr. Robins, whose skill in gunnery is well known, says, 'If a musket barrel, of the common length and bore, be fired with a leaden bullet and half its weight of powder, and if the same barrel be afterwards shortened one-half and fired with the same charge, the velocity of the bullet in this shortened barrel will be about one-sixth less than it was when the barrel was entire: and if, instead of shortening the barrel, it be increased to twice its usual length, when it will be near eight feet long, the velocity of the bullet will not hereby be augmented more than one-eighth part. The greater the length of the barrel is in proportion to the diameter of the bullet, and the smaller the quantity of powder, the more inconsiderable will these alterations of velocity be.' The advantages, therefore, gained by long barrels are by no means equivalent to the disadvantages arising from the weight and encumbrance of them; and from many experiments it is now proved, that one may choose any length he pleases, without any sensible detriment to the range of his piece. The most approved lengths are from thirty-two to thirty-eight inches. An opinion has prevailed among sportsmen, that by some unknown manœuvre the gunsmith is able to make a piece, loaded with small shot, throw the contents so close together, that even at the distance of forty or fifty paces the whole will be confined within the breadth of a hat. From such experiments as have been made on this subject, however, it appears, that the closeness or wideness with which a piece throws its shot is liable to innumerable variations, from causes which no skill in the gunsmith can possibly reach. So variable are these, that there is no possibility of making the same piece throw its shot equally close twice successively. In general, however, the closer the wadding is, the better disposed the shot seems to be to fall within a small compass. The closeness of the shot therefore would seem to depend on preventing the flame of the powder from insinuating itself among its particles: whence those who shoot for a wager at a mark with small shot, put in the shot by small quantities at a time, ramming down a little tow or thin paper over each; so as to fill the interstices of the grains, and thus prevent the flame from getting in amongst the grains and scattering them.

Some pieces are composed of two or more barrels joined together; in which case the thickness of each of the barrels is somewhat less than in single barrelled pieces. After being properly dressed, each of them is filed flat on the side where they are to join each other, so that they fit more closely together. Two corresponding notches are then made at the muzzle and breech of each barrel; and into these are fitted two small pieces of iron to hold them more strongly together. Being then united by tinning the contiguous parts, a triangular piece of iron called the rib is fastened on in like manner, running the whole length on the upper side; which serves to hold them more strongly together. After this they are to be polished and colored in the manner described for single barrels: great care should be taken, that the barrels joined in this manner should be quite equal in strength and quite upright, or of an equal thickness throughout. If any inequality takes place in the strength of the barrels, the weaker will be warped by the action of the stronger; and the warping from this cause has sometimes been so considerable as to render one of the barrels useless. To bring every part of the circumference of each barrel to as equal strength as possible, so that no part may be strained by the explosion, that side

where they touch must be so reduced, that the partition between the two calibres may be no thicker than either barrel was at the same place before it was filed to join in this manner. Formerly the double-barrelled pieces were made with one barrel lying over the other, each barrel having a separate pan, hammer and hammer-spring, but only one cock for both. The barrels were therefore made to turn round at the place where the breeches joined with the stock; so that as soon as one was fired off, the other could be brought into its place by pressing a spring moved by the guard with the right hand, while with the left the barrels were turned upon their common axis; and as soon as the charged barrel was thus brought into its proper situation, the spring descended into a notch and kept it firm. But this method was found to be too complicated, though upon the same plan three and four barrels were sometimes mounted upon one stock; but these pieces were intolerably heavy, and have no real superiority over the double-barrelled pieces which do not turn round, and which of consequence are now only made use of. In forging barrels of all kinds, it is of importance to have them made at first as near as possible to the weight intended, so that very little be taken away by the boring and filing: for as the outer surface, by having undergone the action of the hammer, is rendered the most compact and pure, we should remove as little of it as possible; and the same holds with the inside.

A Musketoon is a kind of short thick musket, whose bore is the thirty-eighth part of its length; it carries five ounces of iron, or seven and a half of lead, with an equal quantity of powder. This is the shortest kind of blunderbusses. It is of the same length with the carabine.

MUSKMEL'ON, *n. s.* Musk and melon. A fragrant melon.

The way of maturation of tobacco must be from the heat of the earth or sun; we see some leading of this in *muskmelons*, which are sown upon a hot bed dunged below, upon a bank turned upon the south sun. *Bacon.*

Musk-Rat. See Castor, and Mus.

MU'SKROSE, *n. s.* Musk and rose. A rose so called from its peculiar fragrance.

Thyrsis, whose artful strains have oft delayed
The huddling brook to hear his madrigal,
And sweetened every *muskrose* of the dale. *Milton.*

The *muskrose* will, if a lusty plant, bear flowers in Autumn without cutting. *Boyle.*

MUS'LIN, *n. s.* Fr. *mousselin;* Sp. *musolino.* Because first imported from Mousol. A fine stuff made of cotton.

By the use of certain attire, made of cambrick or *muslin*, upon her head, she attained to such an evil art in the motion of her eyes. *Tatler.*

In half-whipt *muslin* needles useless lie,
And shuttle-cocks across the counter fly. *Gay.*

Muslin bears a downy knot on its surface. There are several sorts of muslins brought from the East Indies, and more particularly from Bengal; such as doreas, betelles, mulmuls, tanjeebs, &c. Muslin is now manufactured in Britain, and brought to very great perfection. See Cotton.

MUSONIUS (Caius, Rufus), a Stoic philosopher of the second century, who was banished into the island of Gyare, under the reign of Nero, for criticising the manners of that prince; but was recalled by Vespasian. He was the friend of Apollonius Tyanæus; and the letters that passed between them are still extant.

MUSS, *n. s.* A cant word for a scramble.

When I cried hoa!
Like boys unto a *muss*, kings would start forth,
And cry, Your will? *Shakspeare. Antony and Cleopatra.*

MUSSAFURPORE, or Mujafapore, a town of Hindostan, in the province of Bahar, and district of Hajypore, is situated on the south bank of the Little Gunduck River, and was formerly the residence of the East India Company's commercial agents. Near this place a battle was fought in the year 1760, between Cossim Aly Khan's forces and the British, in which the latter were successful. Long. 85° 25′ E., lat. 26° 10′ N.

MUSSELBURGH, a sea-port town of Scotland, in Mid Lothian, in the parish of Inveresk, at the mouth of the Esk, which separates it from Fisher-row; but the towns are connected by a bridge, as well as by their government. It is an ancient burgh royal, having a charter dated December 11th, 1562; but it had one so early as 1340, granted by the earl of Marr, for the attention of the inhabitants to the great Randolph earl of Murray, who died in it, in 1322. It anciently belonged to the abbacy of Dunfermline, but was granted by James VI. to the duke of Lauderdale, and purchased from this family, in 1709, by the duchess of Buccleugh. It is governed by two bailies and a treasurer, elected annually, and fifteen councillors; of whom ten are elected from Musselburgh, and eight from Fisher-row. Two councillors go out, and two new ones are chosen annually. It has seven incorporations. Its last charter is dated 1670. Its revenue is above £1500 a year. It has a market on Friday, and a fair the second Tuesday in August. It lies four miles north of Dalkeith, and six east of Edinburgh.

MUSSENDON, a cape of Arabia, one of the boundaries of the Persian Gulf. It is the termination of a series of mountains inhabited by a tribe descended from the Arabs and Portuguese. A number of small rocks or islands, named the Quoins, lie about ten miles to the north of the Cape.

MUS'SULMAN, *n. s.* Arab. *mosleman*, of Arab. *islam*, salvation. A Mahometan believer.

Thus says the prophet of the Turk,
Good *mussulman*, abstain from pork,
There is a part in every swine
No friend or follower of mine
May taste, whate'er his inclination,
On pain of excommunication. *Cowper.*

Mussulman, is a title by which the Mahometans distinguish themselves; signifying, in the Turkish language, 'true believer, or orthodox.' See Mahometanism. In Arabic the word is written Moslem, or Mosleman. The appellation was first given to the Saracens, as is observed by Leunclavius.—There are two sects of Mussulmans, very averse to each other; the one called Sonnites, and the other Shiites.—The Sonnites follow the interpretation of the Alcoran given by

Omar; the Shiites are the followers of Ali. The subjects of the king of Persia are Shiites, and those of the grand signior, Sonnites. See ALCORAN, and SONNA. Some authors say, that the word Mussulman signifies saved, that is, predestinated; and that the Mahometans give themselves the appellation, as believing they are all predestinated to salvation.—Martinius is more particular as to the origin of the name; which he derives from the Arabic מסלם, musalem, 'saved, snatched out of danger;' the Mahometans, he observes, establishing their religion by fire and sword, massacred all those who would not embrace it, and granted life to all that did, calling them Mussulmans, q. d. erepti è periculo; whence the word, in course of time, became the distinguishing title of all those of that sect, who have affixed to it the signification of true believers.

MUST, *v. imp.* Sax. mopt; Belg. and Teut. *mussen.* To be obliged; to be by compulsion or necessity.

Must I needs bring thy son unto the land from whence thou camest? *Gen.* xxiv. 5.

Do you confess the bond?
—I do.
—Then *must* the Jew be merciful.
—On what compulsion *must* I? tell me that.
Shakspeare.

Fade, flowers, fade, nature will have it so,
'Tis but what we *must* in our Autumn do.
Waller.

Because the same self-existent being necessarily is what he is, 'tis evident that what he may be, or hath the power of being, he *must* be. *Grew.*

Every father and brother of the convent has a voice in the election, which *must* be confirmed by the pope. *Addison.*

What say you—a pasty, it shall, and it *must*;
And my wife, little Kitty, is famous for crust.
Goldsmith.

Full many a pang, and many a throe,
Keen recollection's direful train,
Must ring my soul, ere Phœbus, low,
Shall kiss the distant, western main. *Burns.*
My sister, and my sister's child,
Myself, and children three,
Will fill the chaise; so you *must* ride
On horseback after we. *Cowper.*

MUST, *v. a.* & *v. n.* } Belg. *mos*; Wel. *mws*
MUS'TINESS, *n. s.* } (mould); Fr. *morsir*; Ital.
MUS'TY, *adj.* } *mucido*; Lat. *mucidus.*

To make or grow mouldy: mustiness is, mouldiness; foulness arising from damp: musty, spoiled by damp; fetid; vapid with fetidness; hence, dull; heavy.

Was't thou fain, poor father,
To hovel thee with swine and rogues forlorn,
In short and *musty* straw.
Shakspeare. King Lear.

Pistachoes, so they be good and not *musty*, made into a milk, are an excellent nourishment. *Bacon.*

Let those that go by water to Gravesend prefer lying upon the boards, than on *musty* infectious straw. *Harvey.*

Keep them dry and free from *mustiness.*
Evelyn's Kalendar.

Others are made of stone and lime, but they are subject to give and be moist, which will *must* corn. *Mortimer.*

Xantippe, being married to a bookish man who has no knowledge of the world, is forced to take his affairs into her own hands, and to spirit him up now and then, that he may not grow *musty* and unfit for conversation. *Addison's Spectator.*

Let not, like Nævius, every error pass;
The *musty* wine, foul cloth, or greasy glass.
Pope.

MUST, *n. s.* Sax. mypt; Fr. *mout, moust*; Lat. *mustum.* New wine; new wort.

If in the *must* of wine, or wort of beer, before it be tunned, the burrage stay a small time, and be often changed, it makes a sovereign drink for melancholy. *Bacon's Natural History.*

As a swarm of flies in vintage time,
About the wine-press where sweet *must* is poured,
Beat off, returns as oft with humming sound.
Milton.

The wine itself was suiting to the rest,
Still working in the *must*, and lately pressed
Dryden.

A frugal man that with sufficient *must*
His casks replenished yearly; he no more
Desired, nor wanted. *Philips.*

Liquors, in the act of fermentation, as *must* and new ale, produce spasms in the stomach.
Arbuthnot on Aliments.

MUST is a liquid of a sweet taste expressed from grapes fully ripe: or the liquor pressed from the fruit before it has worked or fermented. See WINE. Dr. Thompson says, it is composed of five ingredients, viz. water, sugar, jelly, extract, and tartareous acid, partly saturated with potass. The quantity of sugar is very considerable; it may be obtained in crystals by evaporating must to the consistence of syrup, separating the tartar which precipitates during the evaporation, and the setting the must aside for some months. The crystals of sugar are gradually formed.

MUST OF RHENISH WINE. This is a liquor that is found extremely to affect the brain; for not having passed the natural effervescence, which it would have been subject to in the making of wine, its salts are locked up, till, the heat of the stomach setting them to work, they raise their effervescence there, and send up abundance of subtle vapors to the brain. The Rhenish must is of two kinds, being made either with or without boiling. That made without boiling is only put up so close in the vessel that it cannot work; this is called stumm wine. That by boiling is thus prepared: they take strong vessels not quite filled, and, putting them into a cellar, they make a fire, mild at first, but increased by degrees, and afterwards they gradually lessen it again, that the boiling may cease of itself. This operation is finished in thirty-six or forty hours, according to the size of the vessel; and the wine-boilers, instead of common candles, which would melt by the heat, use thin pieces of split beech-wood. These also serve for a double purpose, not only lighting them, but giving them notice of the boiling being enough; before that time, the quantity of vapors thrown up make them burn dim; but, as soon as it is finished, the vapors ascend in less quantity, and the light burns brisk and clear. About seven or eight days after this boiling, the must begins to work, and after this working it is called wine. They have also another kind of Rhenish must, which is thus prepared. they boil the liquor to half the quantity,

and put into it the medicinal ingredients they are most fond of; such as orange-peel, elecampane root, and juniper berries, or the like; being thus medicated, the whole works much more slowly than it otherwise would. If the boiled must, by too violent effervescence, cast out its lees, it will become vapid and dead, unless this separation is stopped by some fatty substance, such as fresh butter or the like: they put this in upon a vine leaf, or else apply it hard to the mouth of the vessel.

MUSTA'CHES, or MUSTA'CHOES, *n.s.* } Fr. *mustaches;* Span. *mustacho.* Whiskers; hair on the upper lip.

This was the manner of the Spaniards, to cut off their beards, save only their *mustaches*, which they wear long. *Spenser.*

MUSTAPHABAD, a considerable town of Hindostan, in the province of Delhi. It is surrounded by a mud wall, with towers and a ditch, and is subject to the British. Long. 76° 47′ E., lat. 30° 20′ N. N. B. Mustafa, one of the names of Mahomet, is also that of a great number of places in the east.

MUSTAPHANAGUR. See CONDAPILLY.

MUSTARD, *n.s.* Welsh *mwstard;* Fr. *moustard;* Ital. *mostardo*, as some suggest, from Lat. *mustum ardens.* A plant. See SINAPIS.

The pancakes were naught, and the *mustard* was good. *Shakspeare.*

Sauce like himself offensive to its foes,
The roguish *mustard*, dangerous to the nose.
King.

Mustard, in great quantities, would quickly bring the blood into an alkaline state, and destroy the animal. *Arbuthnot.*

'Tis your's to shake the soul,
With thunder rumbling from the *mustard* bowl.
Pope.

Stick your candle in a bottle, a coffee cup, or a *mustard* pot. *Swift.*

MUSTARD, MITHRIDATE. See THLAPSI.

MUSTARD SEED is one of the strongest of the pungent, stimulating, diuretic medicines, that operate without exciting much heat. It is sometimes taken unbruised, to the quantity of a spoonful at a time, in paralytic, cachectic, and serous disorders. It is applied also as an external stimulant, to benumbed and paralytic limbs; to parts affected with fixed rheumatic pain; and to the soles of the feet, in the low stage of acute diseases, for raising the pulse: in this intention, a mixture of equal parts of the powdered seeds and crumbs of bread, with the addition sometimes of a little bruised garlic, is made into a cataplasm, with a sufficient quantity of vinegar. Mustard seed yields, upon expression, a considerable quantity of oil, which is by some recommended externally against rheumatisms and palsies, though it has nothing of that quality by which the seeds themselves prove useful in those disorders; the oil being mild and insipid as that of olives, and the pungency of the seed remaining entire in the cake left after expression; nor is any considerable part of the pungent matter extracted by rectified spirit. The bruised seeds give out readily to water nearly the whole of their active matter: added to boiled milk they curdle it, and communicate their pungency to the whey. The powder of mustard seed may be made into the consistence of a loch with warm water, in which a little sea-salt has been dissolved. Of this a common spoonful, sometimes two, diluted with tepid water, are given on an empty stomach; it operates as well as an emetic, and proves an excellent remedy in most nervous disorders. Med. Ess. Edinb. vol. ii. art. 19, p. 303, note.

MUSTELA, a genus of quadrupeds of the order of feræ. There are six cutting teeth in each jaw; those of the upper jaw erect, sharp-pointed, and distinct; of the lower jaw, blunter, huddled together, and two placed within the line of the rest: the tongue is smooth. 'In many circumstances (says Mr. Kerr), the otters and weasels agree; the body is very long, and of an equal thickness; the legs are short, with smooth shining hair; the claws are not retractile; they dig burrows, in which they reside; and they go about in search of prey in the night: but the otters live almost constantly in the water, swimming on the surface and below it, and subsist chiefly on fish; they do not climb trees, neither do they leap with a crooked body and stretched out tail like the weasels; the head is larger and thicker; the tongue covered with soft papillæ; they have five grinders on each side of each jaw; the weasels have four or five above, and five or six below on each side. From all these circumstances, and the peculiar conformation of their feet, it were proper to separate them into distinct genera; but as they are placed in the same genus by Linné, they are here only divided into two subordinate sections:' viz. 'lutræ, otters, having the toes of the feet webbed; and mustelæ, weasels, having the toes unconnected.' There are many species.

M. afra, the vansire, or Madagascar weasel of Pennant, is brown above, pale yellow below, and the tip of the tail is blackish; it is fourteen inches long from nose to rump, the tail ten; in the upper jaw are twelve grinders and ten in the lower. They inhabit Madagascar, and the interior parts of Africa.

M. barbara, the tayra, or Guiana weasel of Pennant, is black, with a three lobed spot on the neck; is the size of a martin, and has a strong scent of musk; the female has four teats. They inhabit Guiana and Brasil.

M. Canadensis, the pikan, in form resembles the pine martin; the body is tawny or bay, with a white spot on the breast; is nearly two feet long; the tail above ten inches, and black as well as the legs. It has long and strong whiskers, and inhabits North America.

M. erminea, the ermine, has the tail tipt with black. This species inhabits the north of Europe, Asia, and America, and as far as the north parts of Persia and China; living in heaps of stones on the banks of rivers, in the hollows of trees, and in forests, especially of beech, preying on squirrels and lemmings. In manners and food they resemble the common weasel, but do not frequent houses, haunting chiefly woods and hedges, especially such as border on brooks and rivulets. In general appearance they come very near the martin, but are shorter in the body, being scarcely ten inches long from nose to rump,

and the tail about five inches and a half; the hair is likewise shorter and less shining. In the northern regions, the fur of the ermine becomes entirely white during winter, except the outer half of the tail, which remains black. The skins sell in Siberia from £2 to £3 sterling per 100; but were anciently in much greater request than now. In summer, the upper part of the body is of a pale tawny brown color; the edges of the ears and ends of the toes are yellowish-white; the throat, breast, and belly are white; in winter, in the temperate regions, it is sometimes mottled with brown and white; but in severe winters becomes entirely white; the farther north, and the more rigorous the climate, the purer white; those of Britain generally retain a yellowish tinge. In Persia and other southern parts it is brown the whole year. In Siberia they burrow in the fields, and are taken in traps baited with flesh. In Norway they are either shot with blunt arrows, or taken in traps made of two flat stones, one being propped up with a stick, to which is fastened a baited string, which when the animals nibble, the stone falls down and crushes them to death. The Laplanders take them in the same manner, only, instead of stones, they use two logs of wood.

M. foina, the common martin, is of a blackish chestnut color, with the throat and breast white: the head and body measure eighteen inches, the tail ten. Martins inhabit Britain, Germany, France, and most parts of the south of Europe, and even the warmer parts of Russia. They live in woods, and go about during the night in quest of prey. They are most elegant lively animals. Their movements are all exceedingly nimble; they rather bound and leap than walk. They climb rough walls with ease and alacrity; enter pigeon or hen houses, eat the eggs, fowls, &c., and the females often kill great numbers, and transport them to their young. They likewise seize mice, rats, moles, and birds in their nests. Count Buffon kept one of these animals for a considerable time, having tamed him to a certain degree, but he never formed any attachment, and continued always so wild that it was necessary to chain him. He made war against the rats, and attacked the poultry whenever they came in his way. He often got loose, though chained by the middle of the body. At first he went to no great distance, and returned in a few hours; but without discovering any symptoms of joy or affection to any particular person. He, however, called for victuals like a cat or a dog. Afterwards he made longer excursions; and at last walked off altogether. He was then about a year and a half old. He ate every thing presented to him, except herbs; was fond of honey, and preferred hemp-seed to every other grain. He drank very often; sometimes slept two days successively, and at other times none for two or three days. Before sleeping, he folded himself in a round form, and covered his head with his tail. While awake, his motions were so violent, so perpetual, and so incommodious, that it was necessary to chain him, to prevent him from breaking every thing. The count adds that he has had in his possession several martins of a more advanced age, which had been taken in nets; but they continued to be totally savage, bit all who attempted to touch them, and would eat nothing but raw flesh. The character of this animal is differently given by Mr. Pennant; who says, 'it is very good natured, sportive, and capable of being tamed.' The younger females bring three or four at a birth; when older they produce six or seven. They breed in hollows of trees; and are often in winter found in magpies' nests. The skin and excrements have a musky smell.

M. furo, the ferret, has red and fiery eyes; the color of the whole body is a very pale yellow; the length from nose to tail is about fourteen inches, the tail five. In their wild state they inhabit Africa; whence they were brought into Spain, to free that country from rabbits with which it was over run; and from Spain the rest of Europe has been supplied. They cannot bear cold, nor subsist even in France unless in a domestic state. They have not the same capacity of finding subsistence as other wild animals, but must be nourished within doors, and cannot exist in the fields; for those which are lost in the burrows of rabbits perish during winter. Like other domestic animals, they vary in color. The female ferret is less than the male, and, when in season, is so extremely ardent that she dies if her desires are not gratified. Ferrets are brought up in casks or boxes, where they are furnished with beds of hemp or flax. They sleep very much. When they awake they search eagerly for food; and brawn, bread, milk, &c., are commonly given them. They produce twice a-year; and the female goes six weeks with young. Some of them devour their young as they are brought forth, instantly come again in season, and have three litters, which generally consist of five or six, and sometimes of seven, eight, or nine. They are used for hunting rabbits; and, as in this country they are apt to degenerate, warreners cross the breed, by an intercourse between a female ferret and a male polecat, by leaving the former, when in season, near the haunts of the latter. The produce is of a much darker color than the ferret, having a great resemblance to the polecat. This animal is naturally a mortal enemy to the rabbit. When a dead rabbit is for the first time presented to a young ferret, he flies upon it, and bites it with fury; but if it be alive, he seizes it by the throat or the nose, and sucks its blood. When let into the burrows of rabbits, he is muzzled, that he may not kill them in their holes, but only oblige them to come out, to be caught in the nets. If the ferret is let in without a muzzle, he is in danger of being lost; for, after sucking the blood of the rabbit, he falls asleep; and even smoking the hole is not a certain method of recalling him; because the holes have often several entries which communicate with each other, and the ferret retires into one of these when incommoded by the smoke. Ferrets are also used for catching birds in the holes of walls or old trees. The ferret, though easily tamed, and rendered docile, is exceedingly irascible; his odor is always disagreeable; but, when irritated, it becomes more offensive. His eyes are lively, and his aspect is inflammatory; all his movements are

nimble; and he is at the same time so vigorous that he can easily master a rabbit, though four times larger than himself.

M. galera, the tayra of Buffon, or Guinea weasel of Pennant, is of an uniform dusky color, the fur very rough. It is about the size of a rabbit, and is shaped like a rat. It inhabits Guinea; where it burrows in the ground by means of its fore feet, which are strong, and formed for digging. It is very common about the negro villages, and is exceedingly fierce and destructive to poultry.

M. Guianensis, the Guiana, or South American martin, is of a dark brown color, with a white forehead, and a long narrow stripe along the side of the neck. The body and head are nearly two feet long, and the tail is only about five inches. It inhabits Guiana.

M. lutra Brasiliensis, the Brasilian otter, is black, with a yellow spot below the chin; the tail is flat, naked, and reaches only to the feet. It is about the size of a middling dog, but weighs from 40 lbs. to 100 lbs; the head and teeth resemble those of a cat; the eyes are small, round, and black; the feet have five toes each, with sharp claws. They inhabit Brasil, Guiana, and the rivers of South America; live in societies on fish, crabs, &c., and are very fierce, but may be tamed when young.

M. lutra Guianensis, the small Guiana otter, with the hind feet webbed, the toes of the fore feet unconnected, and a long taper naked nail, inhabits Cayenne, and probably other parts of South America. It is only about seven inches long from the nose to the rump; the tail is near seven; the upper parts of the head and body are marked with large brownish-black spots, exactly corresponding on both sides, and the intervals are of a yellowish-gray color; all the under parts of the body and head, and the fore parts of the fore legs, are white; there is a white spot over each eye; the ears are large and round; and the mouth is garnished with long whiskers. Buffon says, there are three varieties of otters in Cayenne; 1st, Black, which weighs from 40 to 50 lbs. French. 2d, Yellowish, weighing 20 or 25 lbs. 3d, The small grayish kind above described, which only weighs 3 or 4 lbs. The other two are not described, but they appear in numerous troops, are very fierce and dangerous, and defend themselves against dogs, biting very cruelly: they litter in holes which they dig on the banks of rivers; and are often tamed and brought up in houses.

M. lutra lutreola, the lesser otter, has very broad hairy feet, and a white mouth; and seldom exceeds a foot in length. The body is of a tawny and dusky color mixed together; the fur having two series of hairs, of which the short are yellowish and the long black. These animals inhabit Poland, Finland, Russia, and Siberia; frequent marshy places, and prey on fish and frogs. They are caught with dogs and traps, and are excessively fetid; but the fur is very valuable, being esteemed next in beauty to that of the sable.

M. lutris, the sea otter, having hairy feet and a hairy tail. From nose to tail it is about three feet long, and the tail is about thirteen inches; the body and the limbs are black, except the fore part of the head, which is white or gray; the largest individual weighs from 70 to 80 lbs.; the fur is very thick, long, black, and glossy, sometimes varying to silvery, with a soft down beneath. The sea otter inhabits the north-west coasts of America, and Eastern Asia, and the intermediate islands. It lives mostly in the sea, and swims with great facility; frequenting shallows which abound in sea-weeds, and feeding on lobsters, fish, sepiæ or cuttle-fish, and shell-fish. It is a harmless animal; very affectionate to its young, insomuch that it will pine to death at the loss of them, and die on the very spot where they have been taken from it. Before the young can swim, the dams carry them in their paws, lying in the water on their backs: they swim often on their back, their sides, and even in a perpendicular posture; are very sportive; embrace, and kiss each other: they breed but once a-year, and have but one young at a time, suckle it for a year, and bring it on shore. They are dull-sighted, but quick scented; and run very swiftly on land. They are hunted for their skins, which are of great value; being sold to the Chinese for seventy or eighty rubles a-piece: each skin weighs 3½ lbs. The young are reckoned very delicate meat, scarcely to be distinguished from a sucking lamb. Their cry is nearly similar to that of a young dog, sometimes interrupted by another cry similar to that of the saki, or fox-tailed monkey. They may be nourished with the flour of manioc diluted in water.

M. lutra piscatoria, the common otter, has naked feet, and the tail is about half the length of the body. It is in general about two feet long, from the tip of the nose to the base of the tail. The fur is of a deep brown color, with two small white spots on each side of the nose, and one beneath the chin. This animal inhabits Europe, North America, and Asia as far as Persia. It frequents rivers, lakes, and fish ponds; and preys on fish, frogs, and fresh water crustaceous animals, being exceedingly destructive to fish ponds. They procreate in February, and the female brings forth three or four young ones in May; the male calls the female by a soft murmuring noise. The otter shows great sagacity in forming its habitation: it burrows under ground on the banks of a river or lake; it always makes the entrance of its hole under water; working upwards to the surface of the earth, and forming, before it reaches the top, several holes, that, in case of high floods, it may have a retreat: for, though amphibious, no animal loves more to lie dry: it makes a minute orifice for the admission of air; and, the more effectually to conceal its retreat, makes even this air-hole in some thick bush. The otter is capable of being tamed: he will follow his master like a dog, and even fish for him, and return with his prey. Though he does not cast his hair, his skin is browner, and sells dearer in winter than in summer, and makes a very fine fur. His flesh has a very disagreeable fishy taste. His retreats exhale a noxious odor from the remains of putrid fishes; and his own body has a bad smell. The dogs chace the otter spontaneously, and easily catch him when at a distance from the water or from

his hole. But, when seized, he defends himself, bites the dogs cruelly, sometimes with such force as to break their leg-bones, and never quits his hold but with life. The beavers, however, pursue the otters, and will not allow them to live on the same banks.

M. martes, the pine martin, has the body of a dark or blackish chestnut color, the breast and throat yellow. They inhabit the north of Europe, Asia, and America; are more rarely found in Britain, France, Germany, and Hungary; and as far as Tonquin in China. They live in large woods and forests, keeping in the day time the hollows of trees, occupying squirrels' nests, especially for their young, and go about only by night. They prey on squirrels, mice, rats, and small birds; eat berries, ripe fruit, and honey; and in winter go in quest of pigeons and poultry. They procreate in February; and the female, after nine months, brings forth seven or eight young ones. The head of this species is shorter, and the legs are somewhat longer, than those of the common martin; but the fur is far superior in fineness, and is a great article in commerce: those about Mount Caucasus, with an orange throat, are esteemed by furriers.

M. melina, the yellow weasel, has the back and belly of a pale cinereous yellow; the face, crown, legs, and tail black. It is eighteen inches long from nose to rump; the tail is also eighteen inches and has long hair; the head is flat, ears rounded, nose blunt, eyes dusky colored, cheeks and chin white, and the throat a rich yellow.

M. putoria, the pole-cat, is of a dirty-yellow color, with white muzzle and ears. He inhabits most parts of Europe, and the temperate climates of Asiatic Russia; and has a great resemblance to the martin in temperament, manners, disposition and figure. He approaches houses, mounts the roofs, takes up his abode in hay-lofts, barns, and unfrequented places, from which he issues at night only in quest of prey. He burrows under ground, forming a shallow retreat about two yards long, terminating under the roots of some large tree. He makes greater havoc among fowls than the martin, cutting off their heads, and carrying them off one by one to his magazine. If he cannot carry them off entire, on account of the smallness of the entry to his hole, he eats the brains and takes only the heads along with him. He is likewise very fond of honey, attacks the hives in winter, and forces the bees to abandon them. The females come in season in the spring, and bring forth three, four, or five. In the deserts of Asiatic Russia, polecats are sometimes found, especially in winter, of a white color; they are also found beyond lake Baikal with white or yellowish rumps, bounded with black. They are exceedingly fetid, like the martin and sable, giving out from the anus a most offensive vapor when frightened. The male is mostly of a yellowish tinge, having a whitish muzzle, while that of the female is a yellowish dirty white.

M. Sarmatica, the Sarmatian weasel, is of a brownish-black color, spotted and striped irregularly with obscure yellow, and is about fourteen inches long, exclusive of the tail, which is six inches. It resembles the polecat, but has a narrower head, a more lengthened body, a longer tail, and shorter hair, except on the feet and tail. They inhabit Poland, especially Volhynia; the deserts of Russia between the Volga and Tanais; the mountains of Caucasus, Georgia, and Bukharia. They are very voracious, and prey on marmots, rats, mice, jerboas, birds, and other small animals. They procreate in spring, and after eight weeks the female, which has eight teats, brings forth from four to eight young ones. They live in holes, mostly in those which have been made by other animals, and are exceedingly fetid.

M. Sibirica, the Siberian weasel, called kolinok by the Russians, is of a deep yellow; has the soles of the feet very hairy; is twelve inches long, and the tail six; the face is black, and the fur long and loose. They reside in Siberia, in forests, between the Altaic Mountains, and the Amur and lake Baikal.

M. vulgaris, the common weasel, fulimart, fitchet, or whitret, has the upper parts of the body of a pale reddish-brown, the lower white. This species inhabits the temperate and northern parts of Europe, Asia, and America, and as far to the southward as the northern provinces of Persia, and are found even in Barbary. In the northern parts of Russia and Sweden, particularly in West Bothnia, they become white in winter like the ermine; but are easily distinguishable, being a great deal smaller; the body and head not exceeding seven inches long, and the tail two and a half. They are very destructive to birds, poultry, and young rabits; and are great devourers of eggs. They do not eat their prey on the place, but, after killing it by one bite near the head, carry it off to their young. They prey also on moles, and are sometimes caught in mole traps. They are remarkably active, and run up the side of walls with such ease, that scarce any place is secure from them, the body being so small, that almost any hole is pervious to it. This species frequent out-houses, barns, and granaries, which they clear from mice and rats, being much greater enemies to them than even cats. But in summer they retire from houses, especially into low grounds, about mills, along rivulets, concealing themselves among brush-wood, to surprise birds; and often take up their abode in old willows, where the female brings forth her young. She prepares for them a bed of straw, leaves, and other herbage, and litters in spring, bringing from six to eight or more at a time. The young are born blind, but soon acquire sight and strength. Their motion consists of unequal and precipitant leaps; and, when they want to mount a tree or seize a bird, they make a sudden bound, by which they are at once elevated several feet high. They have a disagreeable odor, which is stronger in summer than in winter; and, when pursued or irritated, their smell is felt at a considerable distance. They move always with caution and silence, and never cry but when hurt. Their cry is sharp, rough, and very expressive of resentment. As their own odor is offensive, they seem not to be sensible of a bad smell in other bodies. M. Buffon informs us, that a peasant in his neigh-

bourhood took three new-littered weasels out of the carcase of a wolf that had been hung up on a tree by the hind feet. The wolf was almost entirely putrefied, and the female weasel had made a nest of leaves and herbage for her young in the thorax of this putrid carcase. The weasel may be perfectly tamed, and rendered as caressing and frolicsome as a dog or squirrel. The method of taming them is to stroke them often and gently over the back; and to threaten and even to beat them when they bite. In the domestic state their odor is never offensive but when irritated. They are fed with milk, boiled flesh, and water.

M. zibellina, the sable, has a great resemblance to the martin, from which it differs in having a longer head, longer ears, surrounded by a yellow margin, longer and more elegant fur, the feet more thickly clothed with hair, and the tail shorter than the hind legs when extended, while that of the martin is much longer. The color of the hair is cinereous at the bottom, and black at the tips; the chin is cinereous, sometimes white, yellowish, or spotted; the mouth is garnished with long whiskers; and the feet are large with white claws. It inhabits the north parts of Asia and America, Siberia, Kamtschatka, and the Kurile Islands, and formerly in Lapland; being found in Asia as low as 58°, and in America even to 40° N. lat. The sables frequent the banks of rivers and the thickest parts of the woods; avoiding the rays of the sun, which soon change the color of their hair. They live in holes of the earth, or beneath the roots of trees; sometimes they form nests in the trees, and skip with great agility from one to the other; they are very lively, and very active and restless during the night. Dr. Gmelin tells us that, after eating, they generally sleep half an hour or an hour, when they may be pushed, shaken, and even pricked, without awaking. A tame one kept by him rose upon its hind legs on the sight of a cat, to prepare for combat. In the woods they are much infested by wild cats. In summer they prey on ermines, weasels, and squirrels, but especially on hares; in winter on birds; in autumn on whortleberries, cranberries, and the berries of the service tree; but their skins are then at the worst; that diet causing their skins to itch, and to rub off their fur against the trees. They bring forth in March or April; and have from three to five at a time, which they suckle for four or five weeks. In spring, after shedding the coat, the fur is sometimes of a tawny cast, and sometimes of a snowy whiteness. The blackest are reputed the best; and sometimes sell, even in Siberia, from £1 to £10 sterling each. See SABLE.

M. zibellina nigra, the black sable, has the back, belly, legs, and tail black; the sides brown, and the tail very bushy. It is four feet two inches long from nose to rump; the tail is seventeen inches; the feet very broad and hairy all over. It has six small fore teeth in each jaw; six large tusks; four grinders on each side in the upper jaw, and six on each side on the lower. It inhabits New York and Pennsylvania.

MUS'TER, *v. n., v. a. & n. s.* } Teut. *muster;*
MUS'TER-BOOK, *n. s.* } Belg. *mousteren;*
MUS'TER-MASTER, } Span. *mostrar;*
MUS'TER-ROLL. } Lat. *monstrare.*

To assemble in array, or military show; to bring together; form an army: a muster is a collection of registered forces; or a review of such forces: 'to pass muster,' to be allowed to be borne upon the muster-roll of a regiment: muster-book and muster-roll are records or registers of military forces: muster-master, one who superintends the muster, its equipments, &c.

The principal scribe of the host *mustered* the people. 2 *Kings.*

The captain, half of whose soldiers are dead, and the other quarter never *mustered* nor seen, demands payment of his whole account. *Spenser.*

Ye publish the *musters* of your own bands, and proclaim them to amount to thousands. *Hooker.*

A noble gentleman, then *mustermaster*, was appointed ambassador unto the Turkish emperor. *Knolles's History.*

Why does my blood thus *muster* to my heart,
So dispossessing all my other parts
Of necessary fitness? *Shaksp. Measure for Measure.*

Had we no quarrel to Rome, but that
Thou art thence banished, we would *muster* all
From twelve to seventy. *Shakspeare. Coriolanus.*

Shadow will serve for Summer: prick him: for we have a number of shadows to fill up the *musterbook.* *Id. Henry IV.*

Mustermasters carry the ablest men in their pockets. *Raleigh.*

All the names
Of thy confederates too, be no less great
In hell than here: that when we would repeat
Our strength in *muster*, we may name you all. *Ben Jonson.*

How many insignificant combatants are there in the Christian camp, that only lend their names to fill up the *muster-roll*, but never dream of going upon service? *Decay of Piety.*

God is represented to us as the general of an army, drawing forth and ordering his creatures as a general summoneth to a rendezvous, *mustereth* and embattleth his troops. *Barrow.*

All the wise sayings and advices, which philosophers could *muster* up to this purpose, have proved ineffectual to the common people. *Tillotson.*

Old Anchises
Reviewed his *mustered* race, and took the tale. *Dryden.*

A daw tricked himself up with all the gay feathers he could *muster.* *L'Estrange.*

Double dealers may *pass muster* for a while: but all parties wash their hands of them in the conclusion. *Id.*

A man might have three hundred and eighteen men in his family, without being heir to Adam, and might *muster* them up, and lead them out against the Indians. *Locke.*

Deception takes wrong measures, and makes false *musters*, which sounds a retreat instead of a charge, and a charge instead of a retreat. *South.*

Such excuses will not pass *muster* with God, who will allow no man's idleness to be the measure of possible or impossible. *Id.*

Having *mustered* up all the forces he could think of, the clouds above, and the deeps below: these, says he, are all the stores we have for water; and Moses directs us to no other for the causes of the deluge. *Woodward's Natural History.*

They reach the destined place,
And *muster* there, and round the centre swarm,
And draw together. *Blackmore's Creation.*

One tragick sentence, if I dare deride,
Which Betterton's grave action dignified;
Or well-mouthed Booth with emphasis proclaims,
Though but perhaps a *muster-roll* of names. *Pope.*

The army of the sciences hath been of late, with a world of martial discipline, drawn into its close order, so that a view or a *muster* may be taken of it with abundance of expedition. For this great blessing we are wholly indebted to systems and abstracts, in which the modern fathers of learning, like prudent usurers, spent their sweat for the ease of us their children. *Swift.*

Ye *mustering* thunders from above,
Your willing victim see!
But spare, and pardon my fause love,
His wrangs to heaven and me! *Burns.*

MUSTER is a review of troops under arms to see if they be complete and in good order; to take an account of their numbers, the condition they are in, viewing their arms and accoutrements, &c.

MUSTYGANNIM, a town of the province of Tlemsan, in eastern Algiers, occupying in part the site of the ancient Cartiennæ. The name is said by Dr. Shaw to be derived from the good quality of the mutton in the neighbourhood. It ranks second to Tlemsan, and is defended by three castles, two of which guard the harbour; but the strongest is built on one of a number of eminences behind the city, and forms its security against the Arabs. Long. 0° 30′ E., lat. 36° 6′ N.

MU'TABLE, *adj.* MUTABIL'ITY, *n. s.* MU'TABLENESS, *n. s.* MUTA'TION. } Fr. *mutabilité;* Lat. *mutabilis.* Changeableness; inconstancy; fickleness: mutableness is synonymous with mutability: mutation is, change; alteration.

Whan Luna full of *mutabylyte*
As Emperes the dyademe hath worne
Of our pole artyke, smylynge halfe in ascorne
At our foly, and our vnstedfastnesse
The time whan Mars to warre hym dyd dres.
Skelton.

The *mutability* of that end, for which they are made, maketh them also changeable. *Hooker.*

Ambitions, covetings, change of prides, disdain,
Nice longings, slanders, *mutability.* *Shakspeare.*

For the *mutable* rank-scented many,
Let them regard me, as I do not flatter.
Id. Coriolanus.

His honour
Was nothing but *mutation*, ay, and that
From one bad thing to worse. *Shakspeare.*

The vicissitude or *mutations* in the superior globe are no fit matter for this present argument.
Bacon's Essays.

To make plants grow out of the sun or open air is a great *mutation* in nature, and may induce a change in the seed. *Bacon.*

My fancy was the air, most free,
And full of *mutability,*
Big with chimeras. *Suckling.*

I saw thee *mutabile*
Of fancy, feared lest one day thou would'st leave me.
Milton.

Plato confesses that the heavens and the frame of the world are corporeal, and therefore subject to *mutability.* *Stillingfleet.*

Of things of the most accidental and mutable nature, accidental in their production, and mutable in their continuance, yet God's prescience is as certain in him as the memory is or can be in us.
South's Sermons.

MUTE, *adj.* & *n. s.* MUTELY. } Fr. *muet;* Lat. *mutus;* Greek, μυθος. Silent; dumb; without voice: a mute is, one speechless; a letter which cannot be sounded without a vowel; a kind of funeral page: mutely or silently, without speech or noise.

Say she be *mute*, and will not speak a word,
Then I'll commend her volubility. *Shakspeare.*

Either our history shall with full mouth
Speak freely of our acts; or else our grave,
Like Turkish *mute*, shall have a tongueless mouth.
Id.

All sat *mute*
Pondering the danger with deep thoughts.
Milton.

All the heavenly choir stood *mute*,
And silence was in heaven. *Id. Paradise Lost.*

Driving dumb Silence from the portal door,
Where he had *mutely* sat two hours before.
Milton.

He that never hears a word spoken, no wonder if he remains speechless; as one must do, who from an infant should be bred up amongst *mutes*, and have no teaching. *Bishop.*

Grammarians note the easy pronunciation of a *mute* before a liquid, which doth not therefore necessarily make the preceding vowel long. *Id.*

Why did he reason in my soul implant,
And speech, the' effect of reason? To the *mute*
My speech is lost; my reason to the brute.
Dryden.

Mute solemn sorrow, free from female noise,
Such as the majesty of grief destroys. *Id.*

The whole perplexed ignoble crowd,
Mute to my questions, in my praises loud,
Echoed the word. *Prior.*

O! be it lawful now
To tread the hallowed circle of your courts,
And with *mute* wonder and delighted awe
Approach your burning confines.
Barbauld on the Solar System.

To MUTE, *v. n.* Fr. *mutir.* To dung as birds.

Mine eyes being open, the sparrows *muted* warm dung into mine eyes. *Tob.* ii. 10.

I could not fright the crows,
Or the least bird from *muting* on my head.
Ben Jonson.

The bird not able to digest the fruit, from her inconverted *muting* ariseth this plant. *Brown.*

MUTE, STANDING. A prisoner is said to stand mute when, being arraigned for treason or felony, he either 1, makes no answer at all: or 2, answers foreign to the purpose, or with such matter as is not allowable, and will not answer otherwise: or 3, upon having pleaded not guilty, refuses to put himself upon the country. If he says nothing, the court ought to impanel a jury to try whether he stands obstinately mute, or whether he be dumb ex visitatione Dei. If the latter appear to be the case, the judges of the court (who are to be of counsel for the prisoner, and to see that he hath law and justice) shall proceed to the trial, and examine all points as if he pleaded not guilty. But whether judgment of death can be given against such a prisoner, who hath never pleaded, and can say nothing in

arrest of judgment, is a point yet undetermined.

In one class of cases mute-standing was equivalent to conviction. It appears that for the highest, as well as the lowest crime known to the law, the prisoner received the same judgment and execution when obstinately mute, as if he were tried and convicted, namely, in high treason on the one hand, and in petit larceny and all misdemeanors on the other. In another class, the punishment of peine forte et dure was inflicted. The reason for this distinction in the practice of arraignment on different felonies does not appear, further than it may be conjectured that in petty offences the punishment did not affect the life of the prisoner, and in high treason the government chose to adopt the most summary means of avenging its wrongs. Be this, however, as it may, it seems that, upon appeals or indictments for other felonies than petit larceny, the prisoner was not by the ancient law looked upon as convicted, so as to receive judgment for felony, but for his obstinacy received the terrible sentence of penance, or peine (probably a corrupted abbreviation of prisone) forte et dure.

As a sample of the judicial tortures which were inflicted upon accused persons in times, happily, long past, we may quote the particulars of this barbarous species of judgment. It was ordered, if the prisoner stood mute, that he should be remanded to the prison from whence he came, and put into a low dark chamber, and there be laid on his back, on the bare floor, naked, unless where decency forbids; that there be placed upon his body as great a weight of iron as he could bear, and more; that he have no sustenance, save only on the first day three morsels of the worst bread; and on the second day three draughts of standing water, that should be nearest to the prison door; and in this situation this should be alternately his daily diet, till he died. It appears that the prisoner might possibly subsist for forty days under this lingering punishment, and the practice of loading him with weights, or, as it was usually called, pressing him to death, was gradually introduced, being intended as a species of mercy to the delinquent, by delivering him the sooner from torment.

It appears, from some of the ancient authorities on this subject, that in the execution of the sentence, the prisoner was ordered to lie without any litter or other thing under him, and that one arm should be drawn to one quarter of the room with a cord, and the other to another, and that his feet should be used in the same manner. And it seems also that a hole was made for the head, so that it should not touch the earth. The water given him was to be the worst next the prison.

Before this sentence was pronounced, the prisoner had not only trina admonitio, but also a respite of a few hours, and the sentence was distinctly read to him that he might know his danger; and after all, if he continued obstinate, and his offence was clergyable, he had the benefit of his clergy allowed, even though he was too stubborn to pray it. Such was the barbarous state of the law on this subject until the early part of the last reign. The sentence, however, had not in recent times been carried into execution. By the 12 Geo. III. c. 20, it was enacted that every person arraigned for felony or piracy, and standing mute, or not answering directly to the offence, should be convicted of the same; and the same judgment and execution (with all their consequences in every respect) was thereupon awarded, as if the person had been convicted by verdict or confession of the crime. Two instances occurred since the passing this statute of persons who refused to plead, and who were in consequence condemned and executed, one at the Old Bailey for murder, in 1778, the other for burglary at the summer assizes at Wells in 1792.

But now, by the 7 and 8 Geo. IV. c. 28, if the accused refuse to plead, or stand mute, the court may direct the proper officer to enter a plea of not guilty on his behalf, which has the same effect as if he had actually pleaded. Thus, at length, the law accords with the principles of reason and humanity.

To advise a prisoner to stand mute is a high misprision, a contempt of the king's court, and punishable by fine and imprisonment.

MUTILATE, *v. a.* } Fr. *mutiler;* Lat. *mu-*
MUTILA'TION, *n. s.* } *tilo.* To maim; deprive of some essential part or limb.

The subject hath been oppressed by fines, imprisonments, *mutilations*, pillories, and banishments. *Clarendon.*

Such fearing to concede a monstrosity, or *mutilate* the integrity of Adam, preventively conceive the creation of thirteen ribs. *Browne.*

Mutilations are not transmitted from father to son, the blind begetting such as can see: cripples, *mutilate* in their own persons, do come out perfect in their generations. *Id.*

Sylburgius justly complains that the place is *mutilated.* *Stillingfleet.*

Among the *mutilated* poets of antiquity there is none whose fragments are so beautiful as those of Sappho. *Addison.*

Aristotle's works were corrupted, from Strabo's account of their having been *mutilated* and consumed with moisture. *Baker.*

MUTILLA, in zoology, a genus of insects belonging to the order hymenoptera. The most remarkable species is,

M. occidentalis, the velvet ant, an inhabitant of North America. It has six legs, with short crooked antennæ; the abdomen large, with a black list crossing the lower part of it, and another black spot at the joining of the thorax; excepting which the whole body and head resemble crimson velvet. The trunk or shell of the body is of such a strong and hard contexture, that though trod upon by men and cattle they receive no harm. They have a long sting in their tails, which causes inflammation and great pain for half an hour to those who are stung by them; which usually happens to negroes and others that go barefooted. They are mostly seen running very nimbly on sandy roads in the hottest summer weather, and always single. See ENTOMOLOGY.

MUTINA, in ancient geography, a noble city of Gallia Cispadana, made a Roman colony in the same year with Parma, situated between the

rivers Gabellus and Scultenna, on the Via Æmilia. Here D. Brutus, being besieged by Antony, was relieved by the consuls Hirtius and Pansa. The Greeks called it Mutine; except Polybius, in whom it is Motine; and in Ptolemy Mutina. It is now called Modena.

MU'TINE, *n. s.*
MUTINEER',
MU'TINOUS, *adj.*
MU'TINOUSLY, *adv.*
MU'TINOUSNESS, *n. s.* & *v. n.*
MUTI'NY, *n. s.*

Fr. *mutin*, of Lat. *mutio*. A ringleader of insurrection (obsolete): a mutineer is the modern word: mutinous is, seditious; turbulent; moving to insurrection: mutiny, sedition; insurrection: to mutiny, to rise against lawful authority; make or join in insurrection.

The spirit of my father begins to *mutiny* against this servitude. *Shakspeare. As You Like It.*

I' th' war,
Their *mutinies* and revolts, wherein they shewed
Most valour, spoke not for them. *Id. Coriolanus.*

A woman, a young woman, a fair woman, was to govern a people in nature *mutinously* proud and always before used to hard governours. *Sidney.*

The king fled to a strong castle, where he was gathering forces to suppress this *mutiny*. *Id.*

In my heart there was a kind of fighting,
That would not let me sleep; methought I lay
Worse than the *mutines* in the bilboes.
Shakspeare.

It tauntingly replied
To the discontented members, the *mutinous* parts,
That envied his receipt. *Id. Coriolanus.*

The war of the duke of Urbin, head of the Spanish *mutineers*, was unjust. *Bacon.*

The laws of England should be administered, and the *mutinous* severely suppressed. *Hayward.*

What do these *mutineers* say? Oh that we had died by the hand of the Lord! *Bp. Hall.*

Less than if this frame
Of heaven were falling, and these elements
In *mutiny* had from her axle torn
The stedfast earth. *Milton's Paradise Lost.*

Lend me your guards, that, if persuasion fail,
Force may against the *mutinous* prevail. *Waller.*

The people *mutiny*, the fort is mine,
And all the soldiers to my will incline. *Id.*

Soldiers grow pernicious to their master who becomes their servant, and is in danger of their *mutinies*, as much as any government of seditious. *Temple.*

Set wide the mufti's garden-gate,
For there our *mutineers* appoint to meet. *Dryden.*

My ears are deaf with this impatient crowd;
Their wants are now grown *mutinous* and loud.
Id.

Men imprudently often, seditiously and *mutinously* sometimes, employ their zeal for persons. *Sprat's Sermons.*

When Cæsar's army *mutinied*, and grew troublesome, no argument could appease them. *South.*

They have cashiered several of their followers as *mutineers*, who have contradicted them in political conversations. *Addison.*

MUTINY. Any officer or soldier who shall presume to use traiterous or disrespectful words against the sacred person of his majesty, or any of the royal family, is guilty of mutiny. Any officer or soldier who shall behave himself with contempt or disrespect towards the general or other commander in chief of our forces, or shall speak words tending to their hurt or dishonor, is guilty of mutiny. Any officer or soldier who shall begin, excite, cause, or join in any mutiny or sedition, in the troop, company, or regiment to which he belongs, or in any other troop or company in our service, or on any party, post, detachment, or guard, on any pretence whatsoever, is guilty of mutiny. Any officer or soldier who being present at any mutiny or sedition, does not use his utmost endeavours to suppress the same, or coming to the knowledge of any mutiny, or intended mutiny, does not without delay give information to his commanding officer, is guilty of mutiny. Any officer or soldier who shall strike his superior officer, or draw, or offer to draw, or shall lift up any weapon, or offer any violence against him, being in the execution of his office, on any pretence whatsoever, or shall disobey any lawful command of his superior officer, is guilty of mutiny.

MUTIUS (Caius), surnamed Codrus, and afterwards Scævola, was one of the illustrious Roman family of the Mutii, and rendered his name famous in the war between Porsenna king of Tuscany, and the Romans. That prince, resolving to restore the family of Tarquin II., went to besiege Rome A. A. C. 507. Mutius resolved to sacrifice himself for the safety of his country; and, boldly entering the enemy's camp, killed Porsenna's secretary, whom he took for Porsenna himself. Being seized, and brought before Porsenna, he told him boldly that 300 young men like himself had sworn to kill him; but since this hand has missed thee, continued he, it must be punished; then, putting his right hand on the burning coals, he let it burn with such a constancy as astonished the beholders. The king, amazed at the intrepidity of this young Roman, ordered that he should have his freedom and return to Rome, and soon after concluded a peace with the Romans. From this action Mutius obtained the surname of Scævola, or left-handed, which was continued in his family.

MUTIUS SCÆVOLA (Quintus), surnamed the Augur, was an excellent civilian, and instructed Cicero in the laws. He was made prætor in Asia; was afterwards consul, and performed very important services for the republic.

MUTIUS SCÆVOLA (Quintus), another excellent civilian who was prætor in Asia, tribune of the people, and at length consul, A. A. C. 95. He governed Asia with such prudence and equity that his example was proposed to the governors who were sent into the provinces. Cicero says that he was the most eloquent orator of all the civilians, and the most able civilian of all the orators. He was assassinated in the temple of Vesta during the wars of Marius and Sylla, A. A. C. 82.

MOTTEOUDU, a town of the Mysore, south of India. The vicinity abounds with soda; and the town is celebrated for the manufacture of glass bracelets, which are worn by females all over India. Long. 76° 25′ E., lat. 13° 39′ N.

MUTTER, *v. n.*, *v. a.* & *n. s.*
MUT'TERER.

Lat. *mutio*, of *mutus*; Gr. μυθος. To murmur; grumble; complain inarticulately; to utter with imperfect articulation: it is used as a substantive by Milton for the

murmur or obscure sounds made: a mutterer is, a grumbler.

Your lips have spoken lies, your tongue hath *muttered* perverseness. *Isaiah* lix. 2.

What would you ask me, that I would deny,
Or stand so *muttering* on? *Shakspeare. Othello.*

A kind of men, so loose of soul,
That in their sleep will *mutter* their affairs.
Shakspeare.

They may trespass, and do as they please; no man dare accuse them, not so much as *mutter* against them. *Burton.*

A hateful prattling tongue,
That blows up jealousies, and heightens fears,
By *muttering* pois'nous whispers in men's ears.
Creech.

Sky lowered, and *muttering* thunder some sad drops
Wept, at completing of the mortal sin
Original! *Milton's Paradise Lost.*

Without his rod reversed,
And backward *mutters* of dissevering power,
We cannot free the lady. *Milton.*

Jesus, in performing his cures and other miraculous works, did never use any profane, silly, phantastic ceremonies; any *muttering* of barbarous names or insignficant phrases. *Barrow.*

Bold Britons, at a brave bear-garden fray,
Are roused; and clattering sticks cry, play, play, play:
Mean time your filthy foreigner will stare,
And *mutter* to himself, ha, gens barbare!
And it is well he *mutters*, well for him;
Our butchers else would tear him limb from limb.
Dryden.

When the tongue of a beautiful female was cut out, it could not forbear *muttering*.
Addison's Spectator.

I started, *muttering*, blocked! coof!
And heaved on high my waukit loof,
To swear by a' yon starry roof,
Or some rash aith,
That I, henceforth, would be rhyme-proof
Till my last breath.
Burns.

MUTTON, *n. s.* } Fr. *mouton.* The flesh
MUT'TON-FIST. } of sheep: mutton-fist, a large and red fist.

Here's too small a pasture for such store of *muttons*. *Shakspeare.*

The flesh of *muttons* is better tasted where the sheep feed upon wild thyme and wholesome herbs.
Bacon's Natural History.

Within a few days were brought out of the country two thousand *muttons*. *Hayward's Edward VI.*

Will he who saw the soldier's *muttonfist*,
And saw thee mauled, appear within the list
To witness truth? *Dryden's Juvenal.*

The fat of roasted *mutton* or beef, falling on the birds, will baste them.
Swift's Directions to the Cook.

When thus a *mutton*, statelier than the rest,
A ram, the ewes and wethers sad addressed—
Friends! we have lived too long. I never heard
Sounds such as these, so worthy to be feared.
Cowper.

MUTUAL, *adj.* } Fr. *mutuel*; Lat. *mu-*
MU'TUALLY, *adv.* } *tualis.* Acting in turn or
MUTUAL'ITY, *n. s.* } in correspondence; reciprocal: mutuality is reciprocation.

Note a wild and wanton herd,
Fetching mad bounds, bellowing and neighing loud,
If they perchance but hear a trumpet sound,
You shall perceive them make a *mutual* stand,
By the sweet power of musick. *Shakspeare.*

He never bore
Like labour with the rest; where the' other instruments
Did see, and hear, devise, instruct, walk, feel,
And *mutually* participate. *Id. Coriolanus.*

Villanous thoughts, Roderigo! when these *mutualities* so marshal the way, hard at hand comes the incorporate conclusion. *Id. Othello.*

The passions and desires, like the two twists of a rope, *mutually* mix one with the other, and twine inextricably round the heart; producing good, if moderately indulged; but certain destruction, if suffered to become inordinate. *Burton.*

The tongue and pen *mutually* assist one another, writing what we speak, and speaking what we write.
Holder.

They *mutually* teach, and are taught, that lesson of vain confidence and security.
Atterbury's Sermons.

May I the sacred pleasures know
Of strictest amity, nor ever want
A friend with whom I *mutually* may share
Gladness and anguish. *Philips.*

To them but earth-born life they did dispense,
To us, for *mutual* aid, celestial sense.
Tate's Juvenal.

Pellucid substances act upon the rays of light at a distance, in refracting, reflecting and inflecting them, and the rays *mutually* agitate the parts of those substances at a distance for heating them.
Newton's Opticks.

What should most excite a *mutual* flame,
Your rural cares and pleasures are the same.
Pope.

True bliss, if man may reach it, is composed
Of hearts in union *mutually* disclosed;
And, farewell else all hope of pure delight,
Those hearts should be reclaimed, renewed, upright.
Cowper.

Hence let the mean learn contentment, and the great humility; and hence let all learn charity, meekness, and *mutual* forbearance. *Beattie.*

MUTUALES, or METUALES, an independent sect of Sumnite Mahometans, in Syria. They are governed by their own sheiks and emirs, and have rendered themselves formidable to the Turks by their cavalry. Balbec is situated in the country they occupy between Libanus and Antilibanus.

MUZUFIRABAD (the Place of Victory), a district and town of Afghaunistaun. The district is mountainous, but tolerably well watered by the Jhylum, and other streams; but there are said to be no bridges over the river, except those of boats and inflated sheep-skins. The town is the residence of a Mahometan chief.

MUZ'ZLE, *n. s., v. a.* & *v. n.* Arm. *muzzel*; Belg. *moesel*; Fr. *museau*; Ital. *mussok.* 'Quasi mouth-seal,' says Minsheu: but unluckily for the etymology it means also an unsealed mouth. The mouth of any thing or person; used contemptuously of man; a fastening or lock for the mouth: to muzzle is, to fondle with the mouth; fasten or bind up the mouth; and hence to restrain; also, to bring the mouth near.

But, ever and anon turning her *muzzle* toward me, she threw such a prospect upon me, as might well have given a surfeit to any weak lover's stomach.
Sidney.

The fifth Harry from curbed licence plucks
The *muzzle* of restraint; and the wild dog
Shall flesh his tooth on every innocent.
Shakspeare.

This butcher's cur is venom-mouthed, and I
Have not the power to *muzzle* him; therefore best
Not wake him in his slumber. *Id.*

My dagger *muzzled*
Lest it should bite its master, and so prove,
As ornaments often do, too dangerous. *Id.*

As it so did smother the profession, and *muzzle* the mouth, so it doth often stifle faith itself, and quell the heart, men fearing to harbour in their very thoughts, points dangerous and discountenanced by worldly power. *Barrow.*

Greyhounds, snowy fair,
And tall as stags, ran loose, and coursed around his chair;
With golden *muzzles* all their mouths were bound.
Dryden.

The bear, the boar, and every savage name,
Wild in effect, though in appearance tame,
Lay waste thy woods, destroy thy blissful bower,
And, *muzzled* though they seem, the mutes devour.
Id.

The bear *muzzles*, and smells to him, puts his nose to his mouth and to his ears, and at last leaves him.
L'Estrange.

The nurse was then *muzzling* and coaxing of the child. *Id.*

Through the town with slow and solemn air,
Led by the nostril, walks the *muzzled* bear. *Gay.*

Huygens has proved, that a bullet, continuing in the velocity with which it leaves the *muzzle* of the cannon, would require twenty-five years to pass from us to the sun. *Cheyne.*

If the poker be out of the way, or broken, stir the fire with the tongs; if the tongs be not at hand, use the *muzzle* of the bellows. *Swift.*

MY, *pronoun possessive.* Belonging to me. See MINE. My is used before a substantive, and mine, properly, before a vowel. My is used when the substantive follows, and mine when it goes before: as, this is my book; this book is mine.

Her feet she on *my* neck doth place. *Spenser.*

I conclude *my* reply with the words of a Christian poet. *Bramhall.*

If *my* soul had free election
To dispose of her affection. *Waller.*

I shall present *my* reader with a journal.
Addison.

MYA, in zoology, the gaper, a genus belonging to the order of vermes testacea, the characters of which are these: it has a bivalve shell gaping at one end; the hinge, for the most part, furnished with a thick, strong, and broad tooth, not inserted into the opposite valve. Its animal is an ascidia. The most remarkable species are these:—

1. M. declivis, the sloping mya, has a brittle half-transparent shell, with a hinge slightly prominent near the opening, and sloping downwards. It inhabits the rivers of Europe. It is frequently about the Hebrides; the fish are eaten there by the gentry.

2. M. margaritifera, the pearl muscle, has a very thick, coarse, opaque shell, often much decorticated; oblong, bending inward on one side, or arcuated; black on the outside; usual length from five to six inches, breadth two and a quarter. It inhabits great rivers, especially those which water the mountainous parts of Great Britain. This shell is noted for producing quantities of pearl. There have been regular fisheries for this precious article in several of our rivers. Sixteen have been found within one shell. They are the disease of the fish, analogous to the stone in the human body. On being squeezed they will eject the pearl, and often cast it spontaneously in the sand. The Conway was noted for them in the days of Camden. It is said that Sir Richard Wynne of Gwyder, chamberlain to Catharine, queen to Charles II., presented her majesty with a pearl found in a muscle in this river, which is still in the regal crown. They are called by the Welsh cregin diluw, or deluge shells, as if left there by the flood. The Irt of Cumberland also produced them. The famous circumnavigator Sir John Hawkins had a patent for fishing in that river. He had observed pearls plentiful in the Straits of Magellan, and flattered himself with being enriched by procuring them within his own island. In the seventeenth century several of great size were got in the rivers of Tyrone and Donegal in Ireland. One that weighed thirty-six carats was valued at £40, though, being foul, its value was much diminished. Other single pearls were sold from £4 10s. to £10. The last was sold a second time to lady Glenlealy, who put it into a necklace, and refused £80 for it from the duchess of Ormond. Suetonius reports that Cæsar was induced to undertake his British expedition for the sake of our pearls; and that they were so large that it was necessary to use the hand to try the weight of a single one. Pennant supposes that the crystalline balls called mineral pearl were taken for them. Cæsar, we are told, brought home a buckler made with British pearl, which he dedicated to, and hung up in, the temple of Venus Genitrix; a proper offering to the goddess of beauty, who was believed to have sprung from the sea. Pliny says that a red small kind was found about the Thracian Bosphorus in a shell called mya; but does not give it any mark to ascertain the species. This fish will bear removal remarkably well; and it is said that in some places they form reservoirs for the purpose of keeping it, and taking out the pearl, which, in a certain period of time, will be again renewed. From observations on the growth of these shells, and the number of their annular laminæ or scales, it is supposed the fish will attain a very great age; fifty or sixty years are imagined to be a moderate computation. See PEARL.

3. M. pictorum has an oval brittle shell, with a single longitudinal tooth like a lamina in one shell, and two in the other; the length is a little above two inches, the breadth one. It inhabits rivers. The shells are used to put water-colors in; whence the name. Otters feed on this and the other fresh-water shell-fish.

MYAGRUM, gold of pleasure, in botany, a genus of the siliculosa order, and tetradynamia class of plants; natural order thirty-ninth, siliquosæ: silicula terminated by an oblong style; the cell generally monospermous. There are five species; but the only remarkable one is,

M. sativum, which grows naturally in corn fields in the south of France and Italy, and in

some parts of Britain. It is an annual plant, with an upright stalk a foot and a half high, sending two or four side branches, which grow erect; the flowers grow in loose spikes at the end of the branches, standing upon short footstalks an inch long; these are succeeded by oval capsules, which are bordered and crowned at the top with the style of the flower, having two cells filled with red seeds. This is cultivated in Germany for the sake of the expressed oil of the seeds, which the inhabitants use for medicinal, culinary, and economical purposes. The seeds are a favorite food with geese. Horses, goats, sheep, and cows, eat the plant.

MYCALE, a promontory of Asia, opposite Samos, celebrated for a battle which was fought there between the Greeks and Persians about the year of Rome 275. The Persians were about 100,000 men, who had just returned from the unsuccessful expedition of Xerxes in Greece. They had drawn their ships to the shore, and fortified themselves strongly, as if determined to support a siege. They suffered the Greeks to disembark from their fleet without molestation, and were soon obliged to give way before the cool and resolute intrepidity of an inferior number of men. The Greeks, under Leotychides, king of Sparta, obtained a complete victory, slaughtered some thousands of the enemy, burned their camp, and sailed back to Samos with an immense booty, in which were seventy chests of money.

MYCENÆ, in ancient geography, a town of Argolis, in Peloponnesus. The kingdom of the Argives was divided into two portions by Acrisius and his brother Prœtus. Argos and Mycenæ were their capitals. These, as belonging to the same family, and distant only about fifty stadia, or six miles and a quarter, from each other, had one tutelary deity, Juno, and were jointly proprietors of her temple, the Heræum, which was near Mycenæ. It was here that Agamemnon reigned. He enlarged his dominions by his valor; and possessed, besides Mycenæ, the region about Corinth and Sicyon, and that called afterwards Achæa. On his return from Troy he was slain with his companions, at a banquet, by his adulterous wife Clytemnestra, and her paramour Ægisthus. Mycenæ then declined; and under the Heraclidæ was made subject to Argos. The Mycenæans, sending eighty men, partook with the Lacedæmonians in the glory acquired at Thermopylæ. The jealousy of the Argives produced the destruction of their city, which was abandoned after a siege, and laid waste in the first year of the seventy-eighth Olympiad, or 466 years before Christ. Some part of the wall remained in the second century, with a gate, on which were lions, a fountain, the subterraneous edifices where Atreus and his sons had deposited their treasures; and, among other sepulchral monuments, one of Agamemnon, and one of his fellow-soldiers and sufferers. For the modern state of the ruins of the acropolis, &c., see GREECE, vol. X. p. 628.

MYCITHUS, regent of Rhegium. On the death of Anaxilaus he was entrusted with the care of his children and the government of the kingdom, which he conducted with great popularity and fidelity; and restored the kingdom to the princes when they grew up.

MYCONOS, or MYCONUS, in ancient geography, one of the Cyclades, near Delos, under which the giants and Centaurs slain by Hercules are feigned to lie buried. Hence the proverb, Omnia sub Myconum congerere, i. e. every thing lies under Myconus, applied to an injudicious or unnatural farrago. The island was poor, and the inhabitants very avaricious; whence Archilochus reproached Pericles, that he came to a feast like a Myconian; that is, without previous invitation. It is now called Mycone.

MYCTERIA, the jabiru, in ornithology, a genus of birds belonging to the order of grallæ. The bill is long, bending upwards, and acute; the nostrils are small and linear; there is no tongue; and the feet have four toes. There are two species:—

1. M. Americana, the American jabiru, is about the size of a turkey. The bill is long, stout, and of a black color: the whole plumage is white, except the head, and about two-thirds of the neck, which are bare of feathers, and of a blackish color; the remainder is also bare, and of a fine red; on the hind head are a few grayish feathers; the legs are strong, of a great length, and covered with black scales; wings and tail even at the end. This species is found in all the savannas of Cayenne, Guiana, and other parts of South America. They are migratory and gregarious. The female makes its nest in great trees, which grow on the borders; lays two eggs, and brings up the young in the nest till they can descend to the ground. The color of the young bird is gray; in the second year it changes to rose color; and in the third to pure white. They are very wild and voracious, and devour fish in great quantities. The flesh of the young birds is said to be good, but that of the old is hard and oily.

2. M. Asiatica, the Indian jabiru, is of a large size. The bill is dusky, almost straight above, and gibbous near the forehead; the under mandible swelled beneath; and from the base of the bill there passes through and beyond the eye a black streak. The general color of the plumage is white; the lower half of the back, the prime quills, and the tail, are black; the legs a pale red. This species inhabits the East Indies, and feeds on snails.

MYIAGRUS DEUS, in heathen mythology, a name given sometimes to Jupiter, and sometimes to Hercules, for driving away the vast numbers of flies which infested the sacrifices on certain public occasions. The word is usually spel Myagrus; but this must be an error, as this word does not express the fly-destroyer, but the mouse destroyer; and we have it sufficiently testified by the ancients that flies were the only creatures against whom this deity was invoked. Pliny calls this deity Myiodes, and says that the flies which used to pester the Olympic rites went away in whole clouds on sacrificing a bull to this god. We find in Athenæus also that this sacrificing to the god of flies at the Olympic games was a constant custom. Some distinguish these two deities, and tell us that Myiodes used to visit the nations in vengeance, with a vast

multitude of flies; and that, on paying him the due honors of a sacrifice, they all went away again. At the Olympic games Jupiter was worshipped under the name of Apomyos, or Myiagrus Deus. This happened only once in many years; but the Elians worshipped him continually under this name, to deprecate the vengeance of heaven, which usually sent an army of flies and other insects about the end of summer, that infested the country with pestilence.

MYLASA, or Mylassa, in ancient geography, a noble city of Caria in Asia Minor, situated about nine miles from the Sinus Ceramicus. It was the capital of Hecatomnus, king of Caria, the father of Mausolus. Pliny speaks of Menander, king of Caria, and says that the Rhodians preserved, with the greatest care, his portrait, painted by Apelles; but it was not in honor of this Menander that a Corinthian pillar was erected at Mylasa, which still exists, and on which is to be seen the following inscription: 'The people erected this pillar in honor of Menander, the son of Uliades, and grandson of Euthydemus, the benefactor of his country, and whose ancestors rendered it great services also.' Euthydemus, the grandfather of this Menander, lived in the time of Julius Cæsar and Augustus. Caria was taken by Mithridates, and afterwards by Labienus, whose father had been one of Cæsar's generals. Hybrias, whose eloquence and valor deservedly entitled him to a distinguished rank among his countrymen, in vain encouraged them to defend it when it was besieged by the latter. He himself was obliged to yield to necessity, and to take refuge at Rhodes: but scarcely had the conqueror quitted the city when Hybrias returned, and restored liberty to his country. He also destroyed the power of an ambitious citizen, whose riches and talents had rendered him a necessary evil. Euthydemus, often banished, and as often recalled, always too powerful in a state, the independence of which he threatened, saw his ambition checked by the zeal and activity of Hybrias. The Romans left to Mylasa that liberty of which it rendered itself so worthy by the great efforts it made to preserve it. Pliny calls it Mylasa libera. Strabo informs us that it was one of the most magnificent cities of antiquity, and one of those the temples, porticoes, and other public monuments of which were highly admired. A quarry of white marble in the neighbourhood furnished it with abundance of materials for erecting these edifices. The Mylasians had two temples dedicated to Jupiter, one situated in the city, which was named Osogo, and another on a mountain, sixty leagues distant. The latter was dedicated to Jupiter Stratius, Jupiter the warrior. His statue, which was very ancient, inspired great veneration; people came from all quarters to implore his protection; and for the greater accommodation of his votaries a paved way was constructed, which reached from Mylasa to this venerable fabric. Round the town are now seen ranges of broken columns, the remnants of porticoes, now with rubbish bounding the vineyards. A large portion of the plain is covered with scattered fragments, and with piers of ordinary aqueducts; besides inscriptions, mostly ruined and illegible, some altars, dedicated to Hecatomnus, have been discovered. Of all the ancient temples which formerly ornamented this city one only escaped the power of time, the blind zeal of the early Christians, and the barbarous superstition of the Mahometans. This monument was dedicated to Augustus and the divinity of Rome. When Pococke visited the place it was perfect and entire; but at present no traces of it remain except a few fragments, which have been employed to construct a Turkish mosque.

MYLNE (Robert), the builder of Blackfriars bridge, London, was the son of an architect, who was a magistrate of Edinburgh, where he was born in 1743. After receiving an excellent education he was sent to Rome, and while in that capital gained the first prize in the architectural class, and was chosen a member of the academy of St. Luke, and of the academies of Florence and Bologna. Returning home, he established himself in London, and among other undertakings commenced Blackfriars bridge in 1760, and completed it in ten years in a highly creditable manner. It was the first work of this kind in Britain, in which elliptical arches were substituted for semicircles. Mylne also obtained the appointment of surveyor of St. Paul's cathedral. His death took place in 1811.

MYMUNSING, a large district of Bengal, situated principally between 24° and 25° of N. lat., and intersected by the river Brahmapootra, into which flow on both sides innumerable streams. It is frequently inundated during the rainy season, and produces immense crops of coarse rice. Some parts of the district are overrun with wood. The population consists of nearly equal numbers of Hindoos and Mahometans. The chief town is Bygonbary.

MYNSICHT (Hadrian), physician to the duke of Mecklenburg and several other German princes, was distinguished for his knowledge of chemistry, at the beginning of the seventeenth century. He published a work, entitled Armentarium Medico-Chymicum, which has undergone various editions; but his description of several medicines and their virtues is not always to be depended upon. He discovered the *sal de duobus*, or Arcanum.

MYOL'OGY, *n. s.* Fr. *myologie*. The description and doctrine of the muscles.

To instance in all the particulars, were to write a whole system of *myology*.

Cheyne's Philosophical Principles.

MYOMANCY, a kind of divination, or method of foretelling future events by means of mice. Some authors hold myomancy to be one of the most ancient kinds of divination; and think it is on this account that Isaiah, lxvi. 17. reckons mice among the abominable things of the idolaters. But, besides that it is not certain that the Hebrew word עכבר, used by the prophet, signifies a mouse, it is evident it is not the divination by that animal, be it what it will, that is spoken of, but the eating it.

MYOSOTIS, scorpion-grass, a genus of the monogynia order, and pentandria class of plants; natural order forty-first, asperifoliæ: cor. salver shaped, quinquefid, and emarginated; the

throat shut up by small arches; the most remarkable species is,

M. scorpioides, the mouse-ear. This is a native of Britain, growing naturally in dry fields, and on the margins of springs and rills. It has naked seeds, and the points of the leaves callous. It varies considerably in different situations. In dry places the plant and flowers are smaller; in moist ones both are larger, and sometimes hairy. The blossoms vary from a full blue to a very pale one, and sometimes a yellow; and appear in a long spirally twisted spike. When it grows in the water, and its taste and smell is thereby rendered less observable, sheep will sometimes eat it; but it is generally fatal to them. Cows, horses, swine, and goats, refuse it.

MYOSURUS, mouse-tail, in botany, a genus of the polygynia order, and pentandria class of plants; and in the natural method ranking under the twenty-sixth order, multisiliquæ: CAL. pentaphyllous, the leaves cohering at the base; there are five subulated nectaria resembling petals: SEEDS numerous.

MYOXUS, the dormouse, in zoology, a genus of quadrupeds belonging to the order of glires; formerly included by Linnæus under the genus Mus. There are two fore teeth in each jaw; the upper ones cuneated, the under compressed: the whiskers are long; the tail is hairy and round, growing thicker towards the extremity; the fore and hind legs are of equal length, and the fore feet have four toes. There are four species:—

1. M. dryas, the wood dormouse, is of a reddish-brown or tawny gray color on the upper, and a dirty white on the under parts of the body; having a black line from ear to ear across the eyes. It differs from the garden dormouse only in color, and in having a shorter and more bushy tail, and in wanting the black spots near the ears. Dr. Gmelin, however, ranks them as distinct species.

2. M. glis, the hoary dormouse, is of a pale ash color on the upper parts of the body, and whitish on the under; and is about the size of the common squirrel, but thicker in the body. It inhabits France, the south of Europe, and the south-west of Russia about the Volga. This animal, which is the ἐλειος of Aristotle, μυοξος of Oppian, and glis of Pliny, was held in great esteem among the Romans, as a luxurious delicacy: they were fed in places called gliriaria, constructed for the purpose; and they are still eaten by the modern Italians. It forms a nest in the hollow of some tree, in which it sleeps all day: feeds in the night on nuts, walnuts, the seeds of apples, &c., and grows very fat in autumn. About October they gather in troops; and, retiring into subterraneous burrows, remain torpid till near the end of May. The female has ten teats, six of which are situated on the breast, and four on the belly; and she brings forth from nine to twelve young ones at a litter.

3. M. muscardinus, the common dormouse, is about the size of the domestic mouse, but of a plumper appearance; the nose is more blunt; the head, sides, belly, and tail, are of a tawny red color, the throat white. Dormice inhabit woods, or very thick hedges; forming their nests in the hollow of some low tree, or near the bottom of a close shrub: they form magazines of nuts, and eat in an upright posture like the squirrel. The consumption of their hoard, however, during the rigor of the season, is but small; for they sleep most of the time, retiring into their holes: at the approach of winter they roll themselves up, and become torpid. Sometimes they experience a short revival in a warm sunny day, when they take a little food, and relapse into their former state. These animals seldom appear far from their retreats, or in any open place; whence they seem less common in Britain than they really are. They make their nests of moss, grass, and dead leaves; and bring three or four young at a time.

4. M. nitela, the garden dormouse, is of a tawny color on the upper parts of the body, and whitish ash tinged with yellow on the under; has a black circle round each eye, and a black spot behind each ear; and is five inches long, besides the tail, which measures four. They inhabit the south parts of Europe and Russia, and live chiefly in gardens, though sometimes found in houses. They are very destructive to fruit, particularly peaches, which they prefer to every other kind. They also eat peas, apricots, and plums; and, when soft fruits are not to be had, they will eat almonds, filberts, nuts, and even leguminous plants. Of these they carry off great quantities into their retreats, which they dig in the earth, and particularly in well cultivated gardens; for in old orchards they are often found in hollow trees, where they make beds of herbs, moss, and leaves; eight or ten of them are often found in the same place, benumbed, and rolled up in the midst of their provision of fruit and nuts. They copulate in spring, and bring forth in summer, five or six young, who grow very quickly, but are not fertile till the next year. Their flesh is not eatable, having the same disagreeable odor with the domestic rat.

MYREPSUS (Nicolas), was a physician of Alexandria, who collected into a kind of pharmacopœia all the compound medicines mentioned in the works of the Greek and Arabian writers. His work was completed before the beginning of the fourteenth century; and, though written in barbarous Greek, continued for a long time to be the rule of pharmaceutical preparations in Europe. A translation of it into Latin by Leonard Fusch is entitled Opus Medicamentorum, in Sectiones xlviii. digestum. There are many editions; the best is that of Herman Beverus, Nuremberg, 1658, 8vo.

MYRTAD, *n. s.* Gr. μύριας. Ten thousand: any great number.

> Assemble thou,
> Of all those *myriads*, which we lead, the chief.
> *Milton.*

> Are there legions of devils who are continually designing and working our ruin? there are also *myriads* of good angels who are more cheerful and officious to do us good. *Tillotson.*

> Safe sits the goddess in her dark retreat;
> Around her, *myriads* of ideas wait,
> And endless shapes. *Prior.*

With helmet heads and dragon-scales adorned,
The mighty *myriads*, now securely scorned,
Would mock the majesty of man's high birth,
Despise his bulwarks, and unpeople earth. *Cowper.*

True, thou art brave!—o'er all the busy land,
In patriot ranks embattled *myriads* stand;
Thy foes behold with impotent amaze,
And drop the lifted weapon as they gaze!
Canning.

MYRICA, gale, or sweet willow, in botany, a genus of the tetrandria order, and diœcia class of plants: natural order fifth, amentaceæ. The scale of both the male and female catkin is in the form of a crescent: COR. none; but two styles, and a monospermous berry. There are several species:—

M. cerifera, wax-bearing myrica, or candleberry myrtle, a native of North America. It is a small tree about ten or twelve feet high, with crooked stems branching forth near the ground irregularly. The leaves grow irregularly on them all round; sometimes by pairs, sometimes alternately, but generally at unequal distances. They are of a lanceolated figure; and some are serrated at the top, while others have their edges wholly entire. They stand on very short footstalks; having their upper surface smooth, and of a shining green color, and the under of a more dusky hue. The branches of the old plant shed their leaves in autumn; but the young plants raised from seeds retain them the greatest part of the winter. There are both male and female trees of this species; the flowers are small, of a whitish color, and make no figure; neither does the fruit, which is a small, dry, blue berry, though produced in clusters, make any show: it is from the leaves this tree receives its beauty and value; for these being bruised, with the bark of the young shoots, emit the most refreshing and delightful fragrance, exceeded by no myrtle, or any other aromatic shrub. There is a variety of this species: viz. M. cerifera Carolinensis. It is of lower growth, with shorter but broader leaves, and of equal fragrance; and grows in Carolina, where the inhabitants collect fron its berries a wax of which they make candles; whence it is called candleberry tree. It delights in a moist soil.—The wax is procured in the following manner:—In November and December, when the berries are ripe, a man with his family will remove from home to some island or sand-bank near the sea, where these trees most abound, taking with them kettles to boil the berries in. He builds a hut with palmeto leaves for the shelter of himself and family during his residence there, which is commonly four or five weeks. The man cuts down the trees, while the children strip off the berries into a pot; and, having put water to them, they boil them till the oil floats, which is then skimmed off into another vessel. This is repeated till no more oil appears. When cold, this hardens to the consistence of wax, and is of a dirty green color. Then they boil it again, and clarify it in brass kettles; which gives it a transparent greenness. These candles burn a long time, and yield a grateful smell. They usually add a fourth part of tallow, which makes them burn clearer.

M. communis, the gale, Dutch myrtle, or sweet willow, grows naturally upon bogs in many places both of Scotland and England. It rises about four feet high, with many shrubby stalks, which divide into several branches, garnished with stiff spear-shaped leaves of a light yellowish green, smooth, and a little sawed at their points. The female flowers or catkins are produced from the sides of the branches, growing upon separate plants from the male, which are succeeded by clusters of small berries, each having a single seed. It flowers in July, and ripens in autumn. When transplanted into shrubberies, the moistest parts must be assigned to it. The leaves, flowers, and seeds, of this plant have a strong fragrant smell, and a bitter taste. They are used for destroying moths and cutaneous insects; internally, in infusions, as a stomachic and vermifuge; and as a substitute to hops for preserving malt liquors, which they render more inebriating; it is said that this quality is destroyed by boiling. Both these species may be propagated by seeds or layers. 1. The seeds of the candleberry myrtle we receive from abroad; those of the sweet gale from the bogs where they grow in England or Scotland. The best way is to sow them in boxes of earth from a rich pasture, well broken and fine. They should be sown about half an inch deep; and, when the hot weather comes on, set in the shade. They often remain until the second year before they come up, especially those seeds that come from abroad. If the boxes are set in the shade, and the plants come up, they will require no other trouble the first summer than keeping clean from weeds; in winter they should be removed to a warm hedge or wall, where they may enjoy the benefit of the sun. In the following spring they will come up in plenty. In the beginning of May they should resume their shady situation; and in summer they will require no other trouble than weeding and watering in dry weather. In winter they should be removed into a well-sheltered place; and this may be repeated two years; when in spring they should be taken out of the boxes, and planted in the nursery at about a foot asunder. 2. They may be also easily propagated by layers; for this operation, being performed on the young wood in the autumn, will occasion them to shoot good roots by the autumn following; many of which will be good plants, fit for any place. 3. These plants may likewise be increased by suckers, which many of them often throw out in vast plenty; so that these being taken out for strongest and best rooted may be finally set out; whilst the weaker and those with less root may be planted in the nursery.

M. trifoliata, the trifoliate myrica, with ternate leaves, toothed on the edges; is a native of the Cape of Good Hope.

MYRIOPHYLLUM, in botany, water milfoil, a genus of the polyandria order, in the monœcia class of plants; natural order fifteenth, inundatæ: MALE CAL. tetraphyllous: COR. none; the stamina eight: FEMALE CAL. tetraphyllous; the pistils four; and four naked SEEDS.

MYRISTICA, the nutmeg tree, in botany, a genus of plants belonging to the class diœcia,

and order syngenesia: MALE CAL. monophyllous, strong, and parted into three lacinii of an oval shape, and ending in a point: COR. none. In the middle of the receptacle rises a column of the height of the calyx; to the upper part of which the antheræ are attached. They vary in number from three to twelve or thirteen: FEMALE CAL. and COR. as in the male, on a distinct tree. The germen of an oval shape; the style short, with a bifid stigma, the lacinii of which are oval and spreading.—The fruit is of that sort called drupa. It is fleshy, roundish, sometimes unilocular, sometimes bivalved, and bursts when ripe at the side. The seed is enveloped with a fleshy and fatty membraneous substance, which divides the filaments: this, in one of the species, is the mace of the shops. The seed or nutmeg is round or oval shaped, unilocular, and contains a small kernel, variegated on the surface by the fibres running in the form of a screw.

M. fatua, the wild nutmeg: this grows in Tobago, and rises to the height of an apple-tree; has oblong, lanceolated, downy leaves, and hairy fruit: the nutmeg of which is aromatic, but when given inwardly is narcotic, and occasions drunkenness, delirium, and madness, for a time.

M. moschata, the nutmeg-tree, attains the height of thirty feet, producing numerous branches which rise together in stories, and are covered with bark, which on the trunk is a reddish brown, but that on the young branches is of a bright green color: the leaves are nearly elliptical, pointed, undulated, obliquely nerved, on the upper side of a bright green, on the under whitish, and stand alternately upon footstalks: the flowers are small, and hang upon slender peduncles, proceeding from the axillæ of the leaves: they are both male and female upon separate trees. The nutmeg has been supposed to be the comacum of Theophrastus, but there seems little foundation for this opinion, nor can it with more probability be thought to be the chrysobalanos of Galen. Our first knowledge of it was evidently derived from the Arabians; by Avicenna it was called jiausiban, or jausiband, which signifies nut of Banda. Rumphius both figured and described this tree; but the figure given by him is so imperfect, and the description so confused, that Linnæus, who gave it the generic name myristica, was unable to assign its proper characters. Sonnerat's account of the muscadier is still more erroneous; and the younger Linnæus, misled by this author, places the myristica in the class polyandria, and describes the corolla as consisting of five petals. Thunberg, who examined the flower of the nutmeg, places it in the class monœcia; and according to his description, the male flower has but one filament, surrounded at the upper part by the antheræ; and as the filaments are short and slender, and the antheræ united, this mistake might easily arise. M. de la Marck informs us, that he received several branches of the myristica both in flowers and fruit, from the Isle of France, where a nutmeg tree, which was introduced by M. Poivre in 1770, is now very large, and continually producing flowers and fruit. From these branches, which were sent from M. Cere, director of the king's garden in that island, M. de la Marck has described and figured this and other species of the myristica with tolerable accuracy. The kernels, called nutmegs, are well known, and have been long used both for culinary and medical purposes Distilled with water, they yield a large quantity of essential oil, resembling in flavor the spice itself; after the distillation, an insipid sebaceous matter is found swimming on the water; the decoction inspissated gives an extract of an unctuous, very lightly bitterish taste, and with little or no astringency. Rectified spirit extracts the whole virtue of nutmegs by infusion, and elevates very little of it in distillation; hence the spirituous extract possesses the flavor of the spice in an eminent degree. Nutmegs, when heated, yield to the press a considerable quantity of limpid yellow oil, which on cooling concretes into a sebaceous consistence. In the shops we meet with three sorts of unctuous substances, called oil of mace, though really expressed from the nutmeg. The best is brought from the East Indies in stone jars; this is of a thick consistence, of the color of mace, and has an agreeable fragrant smell: the second sort which is paler colored and much inferior in quality, comes from Holland in solid masses, generally flat, and of a square figure: the third, which is the worst of all, and usually called common oil of mace, is an artificial composition of sevum, palm oil, and the like, flavored with a little genuine oil of nutmeg. When the fruit is ripe, the natives ascend the trees, and gather it by pulling the branches to them with long hooks. Some are employed in opening them immediately, and in taking off the green shell or first rind, which is laid together in a heap in the woods, where in time it putrefies. As soon as the putrefaction has taken place, there spring up a kind of mushrooms, called boleti moschatyni, of a blackish color, and much valued by the natives, who consider them as delicate eating. When the nuts are stripped of their first rind they are carried home, and the mace is carefully taken off with a small knife. The mace, which is of a beautiful red, but afterwards assumes a darkish or reddish color, is laid to dry in the sun for the space of a day, and is then removed to a place less exposed to his rays, where it remains for eight days, that it may soften a little. They afterwards moisten it with seawater, to prevent it from drying too much, or from losing its oil. They are careful, however, not to employ too much water, lest it should become putrid, and be devoured by the worms. It is last of all put into small bags and squeezed very close. The nuts, which are still covered with their ligneous shell, are for three days exposed to the sun, and afterwards dried before a fire till they emit a sound when shaken; they then beat them with small sticks to remove their shell, which flies off in pieces. These nuts are distributed into three parcels; the first contains the largest and most beautiful, which are destined to be brought to Europe; the second contains such as are reserved for the use of the inhabitants; and the third contains the smallest which are not quite ripe. These are burnt; and part of the rest is employed for procuring oil by

pressure. A pound of them commonly gives 3 oz. of oil, which has the consistence of tallow, and has entirely the taste of nutmeg. Both the nut and mace, when distilled, afford an essential, transparent, and volatile oil, of an excellent flavor. The nutmegs which have been thus selected would soon corrupt if they were not pickled with lime water made from calcined shell-fish, which they dilute with salt water till it attain the consistence of fluid pap. Into this mixture they plunge the nutmegs, contained in small baskets, two or three times, till they are completely covered over with the liquor. They are afterwards laid in a heap, where they heat, and lose their superfluous moisture by evaporation. When they have sweated sufficiently, they are then properly prepared, and fit for a sea voyage. In the island of Banda the fruit of the nutmeg tree is preserved entire in the following manner: when it is almost ripe, but previous to its opening, it is boiled in water and pierced with a needle. They next lay it in water to soak for ten days, till it has lost its sour and sharp taste. They then boil it gently in a syrup of sugar, to which, if they wish it to be hard, a little lime is added. This operation is repeated for eight days, and each time the syrup is renewed. The fruit when thus preserved is put for the last time into a pretty thick syrup, and is kept in earthen pots closely shut. These nuts are likewise pickled with brine or vinegar; and, when they intend to eat them, they first steep them in fresh water, and afterwards boil them in syrup of sugar. Nutmegs preserved entire are presented as deserts, and the inhabitants of India sometimes eat them when they drink tea. Some use nothing but the pulp; others chew the mace; but they generally throw away the kernel, which is really the nutmeg. Many who perform sea-voyages to the north chew this fruit every morning. The medicinal qualities of nutmeg are esteemed aromatic, anodyne, stomachic, and restringent; and it has been much used in diarrhœas and dysenteries. To many people the aromatic flavor of nutmeg is very agreeable; they however should be cautious not to use it in large quantities, as it is apt to affect the head, and even to manifest a hypnotic power, in such a degree as to prove dangerous. The officinal preparations of nutmeg are a spirit and essential oil, and the nutmeg in substance roasted, to render it more astringent. Both the spice itself and its essential oil enter several compositions, as the confectio aromatica, spiritus ammoniæ comp., &c. Mace possesses qualities similar to those of the nutmeg, but is less astringent, and its oil is supposed to be more volatile and acrid. Nutmeg trees grow in several islands in the Eastern Ocean. The wood-pigeon of the Moluccas is a great planter of these trees. The Dutch long monopolised the trade.

M. sebifera (the virola sebifera of Aublet), a tree frequent in Guiana, rising to forty or even to sixty feet high; on wounding the trunk of which a thick, acrid, red juice runs out. Aublet says nothing of the nutmeg's being aromatic; he only observes, that a yellow fat is obtained from them, which serves many economical and medical purposes, and that the natives make candles of it.

MYRMECOPHAGA, the ant-bear, in zoology; a genus of quadrupeds, belonging to the order of bruta: there are no teeth in the mouth; the tongue is long and cylindrical; the head terminates in a long snout or muzzle; and the body is covered with pretty long hair. There are six species, viz.

M. Capensis, the Cape ant-bear, has four claws on the fore paws; a long snout, large pendent ears; and a tail which is shorter than the body, and taper at the point. It inhabits the country of the Cape of Good Hope. This species is much larger than any other species; Kolbein compares it to the size of a hog, and asserts that it weighs 100 lbs. It burrows in the ground, sleeps during the day, and only goes abroad at night.

M. didactyla, the little ant-bear, has a conic nose bending a little down; ears small, and hid in the fur; two hooked claws on the fore feet, the exterior being much the largest; four on the hind feet; the head, body, limbs, and upper part and sides of the tail, covered with long soft silky hair, or rather wool, of a yellowish-brown color; from the nose to the tail it measures seven inches and a half, the tail eight and a half, the last four inches of which on the under side are naked. It is thick at the base, and tapers to a point. It inhabits Guinea, climbs trees in quest of a species of ants which build their nests among the branches, and has a prehensile power with its tail.

M. jubata, the great ant-bear, has a long slender nose, small black eyes; short round ears; a slender tongue, two feet and a half long, which lies double in the mouth; the legs slender: five toes on the fore feet, five on the hind; the two middle claws on the fore feet very large, strong, and hooked; the hair on the upper part of the body is half a foot long, black mixed with gray; the fore legs are whitish, marked above the feet with a black spot; the tail is clothed with very coarse black hair a foot long: the length from the nose to the tail about four feet; the tail two feet and a half. This animal inhabits South America, and the kingdom of Congo in Africa. It covers itself with its tail when asleep and to guard against rain. Its flesh is eaten by the natives of America. At a distance it has the appearance of a fox, and therefore some travellers have called it the American fox. He has strength sufficient to defend himself from a large dog, or even from the jaquor or Brasilian cat. When attacked, he at first fights on end, and, like the bear, annoys his enemy with the claws of his fore feet, which are very terrible weapons. He then lies down on his back, and uses all the four feet, in which situation he is almost invincible; and continues the combat to the last extremity. Even when he kills his enemy, he quits him not for a long time after.

M. jubata sima is a variety which has a shorter muzzle and shorter legs than the above, and less distance between the eye and ear. The hair on the sides of the body is two inches and a half long, and as hard as that of a wild boar; the color a mixed deep brown and dirty white. The length of the body and head is three feet eleven inches. It inhabits Guinea.

M. pentadactyla, the five-toed ant-eater, has five toes on the fore paws, and a long flat hairy

tail. The head is thick, the upper jaw and snout very long; the hair long, tawny, and striped with black or dusky; the body is thirteen inches long, and ten high; the tail seven.

M. tetradactyla, the middle ant-bear, has four toes on the fore feet, and five on the hind, with a tail naked at the extremity; the length from the nose to the tail is one foot seven inches, and the tail ten inches. It inhabits South America.

M. tridactyla, the tamandu guaca, or tamanoir, has three toes on the fore feet, five on the hind feet, and long hair on the tail. This animal is about four feet long, and the head and snout about fifteen inches: it is a native of the East Indies, and feeds on ants, &c., in the same manner as the didactyla. All these species have many properties in common with each other, both in their structure and manner. They all feed upon ants, and plunge their tongues into honey and other liquid or viscid substances. They readily pick up crumbs of bread, or small morsels of flesh. They are easily tamed, and can subsist for a long time without food. They run so slowly that a man may easily overtake them in an open field. Their flesh, though its taste be very disagreeable, is eaten by the savages.

MYRMELEO, the ant-lion, in zoology, a genus of insects of the neuroptera order. There are numerous species, of which the most remarkable is,

M. formicarius, the ant-eater. The perfect insect is oblong, and of a brown color. Its head is broad, with two large eyes on the sides, and two antennæ beneath. The neck is rather long, cylindrical, and narrower than the head. The thorax seems composed of two parts; one anterior, whence arise the upper wings; and the other posterior which gives birth to the under ones. The abdomen is of an oblong form, and consists of eight segments; the wings are diaphanous, adorned with a net work of black fibres, charged with several blackish-brown spots. This insect, in its larva state, is very fond of ants, which it hunts after, whence its name. The larvæ proceed from the eggs, which the perfect insect had deposited in very fine dry sand, in a place sheltered from rain, either within a cleft of a wall or of the ground, or at the foot of a wall generally exposed to the south sun. There they are hatched, and make their usual abode. Their color is gray, and their body, which is covered with small protuberances, is of an oval form. The posterior extremity terminates in a point, and is of use to sink down into the sand; for it only walks retrogressively, though furnished with six feet. Before the head is placed a dentated forceps, sharp and hollow within, with which the creature catches and sucks flies and other insects, but especially ants. This forceps serves as a mouth or rostrum, as well as for an offensive weapon. The animal's retrograde march not allowing it to run after the insects on which it is to feed, it uses a stratagem. It dives down into the sand, and, turning about it in a circle, hollows out concentric furrows, gradually deeper and deeper, casting at a distance with its horns the sand it takes from that place. Thus it digs a hole in shape like a funnel, at the bottom of which it takes its station, concealed in the sand, nothing but the open extended forceps appearing above it. Mischief overtakes every insect that happens to fall into that hole. The myrmeleo, who is apprized of it by the grains of sand rolling down to the bottom, overwhelms him with a shower of dust, which it ejects with its horns, then drags the insect to the bottom of the hole, where it seizes him with its forceps, and sucks its vitals. It does not even spare other myrmeleons, who in their motions to and fro chance to fall into it. When the larva is come to its full growth, it digs no more holes; it moves backwards and forwards, tracing irregular furrows on the sand, and at length spins itself a cod, shaped like a ball, the outer part of which is formed of the sand in which it lived, and the inward is lined with fine white silk. Within this cod it turns to a chrysalis, which is curved into a semicircle, and wherein may be distinguished all the parts of the perfect insect that is to issue from it. It is more oblong than the larva, but much shorter than the perfect insect. After a certain period the chrysalis casts off its slough, turns to a winged insect, and breaks through the cod in order to take its flight. The perfect insect is very scarce, but is sometimes met with in sandy places, and near rivulets. See ENTOMOLOGY.

MYR'MIDON, *n. s.* Gr. *μυρμηδὼν*. A soldier; any rude ruffian; so named from the soldiers of Achilles.

> The mass of the people will not endure to be governed by Clodius and Curio, at the head of their *myrmidons*, though these be ever so numerous, and composed of their own representatives.
> *Swift.*

MYRMIDONES, or MYRMIDONS, in antiquity, a people on the south borders of Thessaly who accompanied Achilles to the Trojan war. They received their name from Myrmidon, a son of Jupiter and Eurymedusa, who married one of the daughters of Æolus, son of Helen. His son Actor married Ægina the daughter of Asopus. He gave his name to his subjects, who dwelt near the river Peneus in Thessaly. According to some, the Myrmidons received their name from their having arisen from ants or pismires, upon a prayer put up for that purpose by king Æacus to Jupiter, after his kingdom had been dispeopled by a severe pestilence. According to Strabo, they received it from their industry, because they imitated the diligence of the ants, and like them were indefatigable, and were continually employed in cultivating the earth.

MYRMILLONES, a species of gladiators at Rome, who fought against the Retiarii. Their arms were a sword, head-piece, and shield. On the top of the head-piece they wore a fish embossed, called Μορμυρος, whence their name is supposed to be derived. The Retiarii, in their engagements, made use of a net, in which they endeavoured to entangle their adversaries, and sung during the fight, Non te peto, piscem peto; quid me fugis, Galle? I aim not at thee, but I aim at thy fish; why dost thou shun me, O Gaul? The Myrmillones were called Galli, because they wore Gallic armour. They were also named Secutores. They were suppressed by Caligula.

MYROB'ALAN, *n. s.* Lat. *myrobalanus.* A fruit.

The *myrobalan* hath parts of contrary natures; for it is sweet, and yet astringent. *Bacon.*

The *myrobalans* are a dried fruit, of which we have five kinds: they are fleshy, generally with a stone and kernel, having the pulpy part more or less of an austere acrid taste: they are the production of five different trees growing in the East Indies, where they are eaten preserved. *Hill.*

MYROBALANS, from μυρον, ointment, and βαλανος, an acorn, are a kind of medicinal fruit brought from the Indies, of which there are five kinds. 1. The citrine of a yellowish-red color, hard, oblong, and the size of an olive. 2. The black, or Indian myrobalan, of the bigness of an acorn, wrinkled, and without a stone. 3. Chebulic myrobalans, which are of the size of a date, pointed at the end, and of a yellowish-brown. 4. Emblic, which are round, rough, the size of a gall, and of a dark brown. 5. Balleric, which are hard, round, of the size of an ordinary prune, less angular than the rest, and yellow. They are all slightly purgative and astringent.

MYROXYLON, in botany, a genus of the monogynia order, and decandria class of plants: CAL. campanulated; superior petal larger than the rest; germ is longer than the corolla; legum. monospermous. There is but one species, viz.

M. Peruiferum, a native of Peru, and the warmer parts of America. This shrub yields the balsam of Peru, which is extracted from it by coction in water. This balsam, as brought to us, is nearly of the consistence of thin honey, of a reddish-brown color, inclining to black, an agreeable aromatic smell, and very hot biting taste. Distilled with water, it yields a small quantity of a fragrant essential oil of a reddish color, and in a strong fire, without addition, a yellowish red oil. Balsam of Peru is a very warm aromatic medicine, considerably hotter and more acrid than copaiva. Its principal effects are to warm the habit, to strengthen the nervous system, and attenuate viscid humors. Hence its use in some kinds of asthmas, gonorrhœas, dysenteries, suppressions of the uterine discharges, and other disorders proceeding from a debility of the solids, or a sluggishness and inactivity of the juices. It is also employed externally, for cleansing and healing wounds and ulcers, and sometimes against palsies and rheumatic pains. There is another sort of balsam of Peru of a white color, and considerably more fragrant than the former. This is very rarely brought to us. It is said to be the produce of the same plant which yields the common or black balsam, and to exude from incisions made in the trunk, while the former is obtained by boiling. There is also a third kind, commonly called the red or dry. This is supposed to obtain a different state from the white, merely in consequence of the treatment to which it is subjected after it is got from the tree. It is almost as fragrant as the balsam of Gilead, held in so high esteem among the eastern nations. It is very rarely used in Britain, and seldom or never to be met with in our shops.

MYRRH, *n. s.* Arab. *moor*; Fr. myr[illegible] Lat. *myrrha.* A gum.

The *myrrhe* sweet bleeding in the bitter wound. *Spenser.*

I dropt in a little honey of roses, with a few drops of tincture of *myrrh.* *Wiseman's Surgery.*

Myrrh is a vegetable product of the gum resin kind, sent to us in loose granules from the size of a pepper-corn to that of a walnut, of a reddish-brown colour with more or less of an admixture of yellow: its taste is bitter and acrid with a peculiar aromatic flavour, but very nauseous: its smell is strong, but not disagreeable; it is brought from Ethiopia, but the tree which produces it is wholly unknown. Our *myrrh* is the very drug known by the ancients under the same name. *Hill.*

MYRRH is a gummy, resinous, concrete juice, obtained from an oriental tree. It comes to us in globes or drops, of various colors and magnitudes. The best sort is somewhat transparent, friable, in some degree unctuous to the touch; its reddish yellow color is often streaked internally with whitish semicircular or irregular veins. There are sometimes found among it hard shining pieces, of a pale yellowish color, resembling gum-arabic, of no taste or smell; sometimes masses of bdellium, darker colored, more opaque, internally softer than the myrrh, and differing from it both in smell and taste; sometimes an unctuous gummy resin, of a moderately strong somewhat ungrateful smell, and a bitterish very durable taste, obviously different both from those of bdellium and myrrh; sometimes likewise, as Cartheuser observes, hard compact dark-colored tears, less unctuous than myrrh, of an offensive smell, and a most ungrateful bitterness, so as, when kept for some time in the mouth, to provoke retching, though so resinous that little of them is dissolved by the saliva. Great care is therefore requisite in the choice of this drug. The ancients obtained their myrrh from Ethiopia or Abyssinia. They aromatized their most delicious wines with it; and it was presented as a very valuable perfume to our Lord while he lay in the manger. It was this gum also which was mingled with the wine given him to drink at his passion, to deaden his pains, and produce a stupor. See Mark xv. 23. The gall mentioned on the same occasion by St. Matthew is probably the same with myrrh; for any thing bitter was usually distinguished by the name of gall. The Hebrews were accustomed to give those that were executed some stupefying draught. But our Lord refused it in this instance, being resolved to meet death with all its natural horrors. The difficulty which arises from the seeming difference betwixt the two evangelists, by some is solved by saying, that St. Matthew, writing in Syriac, made use of the word מר, which signifies myrrh, bitterness, or gall; but the Greek translator has taken it for מרור, gall. Others will have it that our Saviour's drink was mingled with myrrh, as a stupefying drug; but suppose that the soldiers, out of wanton cruelty, infused gall; which was the reason why, when he had tasted, he refu[illegible]

The ancients [illegible] one [illegible]

one lic[illegible]

resis, and promotes the fluid secretions in general. Hence it proves serviceable in languid cases, diseases arising from simple inactivity, those female disorders which proceed from a cold, mucous, sluggish indisposition of the humors, suppressions of the uterine discharges, cachectic disorders, and where the lungs and thorax are oppressed by viscid phlegm. Myrrh is likewise supposed in a peculiar manner to resist putrefaction in all parts of the body; and in this light stands recommended in malignant, putrid, and pestilential fevers, and in the small pox; in which last it is said to accelerate the eruption. In the present practice myrrh is less employed than formerly. Rectified spirit extracts the fine aromatic flavor and bitterness of this drug, and does not elevate any thing of either in evaporation; the gummy substance left by this menstruum has a disagreeable taste, with scarcely any of the peculiar flavor of the myrrh; this part dissolves in water, except some impurities which remain. In distillation with water, a considerable quantity of a ponderous essential oil arises, resembling in flavor the original drug. Myrrh is the basis of an officinal tincture. It enters the pilulæ ex aloe et myrrhâ, the pilulæ e gummi, and pilulæ stomachicæ, and some other formulæ. But, for obtaining its full effects, it must be given in doses of half a drachm or upwards; and it is thought to be advantageously united with a proportion of nitre, cream of tartar, or some other refrigerant salt.

Myrrh, Stacte, was procured by incision, and was received in vessels closely shut. Large pieces sometimes present externally, or contain a kind of oily juice, to which likewise the moderns give the name of stacte. To prevent this juice from hardening, or at most in a very small degree, it is sufficient to exclude it from the contact of the air immediately after its issuing from the tree; and by these means its aromatic nature is much better preserved.

Myrrh, Troglodite, was obtained from a region of Ethiopia, called by the ancient Greeks Troglodytria; and reckoned superior to every species of Arabian myrrh, although it was not all of the same quality. Many uncertain and erroneous conjectures and speculations have been formed by Pliny, Theophrastus, Dioscorides, and other ancient writers, respecting this myrrh; as well as by Bruce and other modern authors. But the most probable opinion seems to be, that it was the produce of Abyssinia, and that its different qualities depended on the age and soundness of the trees, the season of the year, and the temperature of the air, when the incisions were made in it.

MYR'RHINE, *adj.* Lat. *myrrhinus.* Made of the myrrhine stone.

How they quaff in gold,
Crystal and *myrrhine* cups imbossed with gems
And studs of pearl. *Milton's Paradise Regained.*

Myrrhine, or Murrine. See Murrhina.

MYRSINE, in botany, African box-tree, a
ia order, and pentandria
uinquefid and con-
olla: berry quin-
Species two;

MYRTHER, or Myther-Tedvel. See Merthyr Tydvill.

MYRTIS, a Greek woman who distinguished herself by her poetical talents. She flourished about 500 years before the Christian era, and instructed the celebrated Corinna in the rules of versification. Pindar himself, as some report, was also one of her pupils.

MYR'TLE, *n. s.* Gr. μυρος; Fr. *myrte;* Lat. *myrtus.* A fragrant tree sacred to Venus.

There will I make thee beds of roses,
With a thousand fragrant posies;
A cap of flowers, and a girdle
Imbroidered all with leaves of *myrtle.*
Shakspeare.

I was of late as petty to his ends,
As is the morn dew on the *myrtle* leaf
To his grand sea. *Id. Antony and Cleopatra.*

Democritus would have Concord like a fair virgin, holding in one hand a pomegranate, in the other a bundle of *myrtle;* for such is the nature of these trees, that if they be planted, though a good space one from the other, they will meet, and with twining one embrace the other. *Peacham.*

Nor can the muse the gallant Sidney pass
The plume of war! with early laurels crowned,
The lover's *myrtle* and the poet's bay. *Thomson.*

The flower of the *myrtle* consists of several leaves disposed in a circular order, which expand in form of a rose; upon the top of the foot-stalk is the ovary, which has a short starlike cup, divided at the top into five parts, and expanded; the ovary becomes an oblong umbilicated fruit, divided into three cells, which are full of kidney-shaped seeds. *Miller.*

It is not to be considered as the effusion of real passion; for passion runs not after remote allusions and obscure opinions. Passion plucks no berries from the *myrtle* and ivy. *Johnson.*

Myrtle, in botany. See Myrtus.

MYRTOOM Mars, a part of the Ægean Sea, lying between Eubœa, Peloponnesus, and Attica. It received this name from Myrto, a woman, or from the island Myrtos, or from Myrtilus, the son of Mercury, who was drowned there, &c. Strabo extends the Mare Myrtoum between Crete, Argia, and Attica. Pausanias, beginning it at Eubœa, joins it at Helena, a desert island, with the Ægean Sea. Ptolemy carries it to the coast of Caria. Pliny says, that the Cyclades and Sporades are bounded on the west by the Myrtoan coast of Attica.

MYRTUS, in botany, the myrtle, a genus of the monogynia order, and icosandria class of plants; natural order nineteenth, hesperideæ: cal. quinquefid, superior; there are five petals: berry dispermous or trispermous. There are many species; the most remarkable are these:—

1. M. communis, the common myrtle-tree, rises with a shrubby, upright, firm stem, branching numerously all around into a close full head, rising eight or ten feet high; very closely garnished with oval, lanceolate, entire, mostly opposite leaves, from half an inch to an inch and a half long, and one broad, on short foot-stalks; and numerous, small, pale flowers from the axillas, singly on each foot-stalk, having diphyllous involucrums; each flower succeeded by a small, oval, dark purple berry. The most material varieties are broad-leaved Roman myrtle, with oval, shining, green leaves, an inch and a half long and one broad; and which is remarkably

floriferous. Gold striped broad-leaved Roman myrtle. Broad-leaved Dutch myrtle, with spear-shaped, sharp pointed, dark green leaves, an inch long, and about three-fourths broad. Double flowered Dutch myrtle. Broad-leaved Jews myrtle, having the leaves placed by threes at each joint; by which particular circumstance this species is in universal estimation among the Jews in their religious ceremonies, particularly in decorating their tabernacles. Orange-leaved Spanish myrtle, with oval spear-shaped leaves, an inch and a half long or more, and one broad, in clusters round the branches, and resemble the shape and color of orange tree leaves. Gold-striped leaved orange myrtle. Common upright Italian myrtle, with its branches and leaves growing more erect, the leaves oval, lanceolate-shaped, acute pointed, and nearly an inch long and half an inch broad. Silver-striped upright Italian myrtle. White-berried upright Italian myrtle. Portugal acute-leaved myrtle, with spear-shaped, oval, acute-pointed leaves, about an inch long. Box-leaved myrtle, with weak branches, small, oval, obtuse, lucid green, closely placed leaves. Striped box-leaved myrtle. Rosemary-leaved myrtle, having erect branches, small, narrow, lanceolate, acute-pointed, shining, green, very fragrant leaves. Silver-striped rosemary-leaved myrtle. Thyme-leaved myrtle, with very small closely-placed leaves. Nutmeg-myrtle, with erect branches and leaves; the leaves oval, acute-pointed, and finely scented like a nutmeg. Broad-leaved nutmeg myrtle. Silver-striped leaved ditto. Cristated or cock's-comb myrtle, frequently called bird's nest myrtle, having narrow, sharp-pointed leaves, cristated at intervals. These are all beautiful evergreen shrubs of extraordinary fragrance; exotics originally of the southern parts of Europe, and of Asia and Africa, and consequently in this country requiring shelter of a green-house in winter; all of which, though rather of the small-leaved kind, have their foliage closely placed, remain all the year, and are very floriferous in summer; and, when there is a collection of the different sorts, they afford an agreeable source of variety with each other. They therefore claim universal esteem as principal green-house plants, especially as they are all so easily raised from cuttings, and of such easy culture as to be attainable in every garden where there is any sort of green-house, or garden-frames furnished with glasses for protecting them in winter from frost; but some of the broad-leaved sorts are so hardy as to succeed in the full ground, against a south wall and other warm exposures, all the year, by only allowing them shelter of mats occasionally in severe frosty weather; so that a few of these may also be exhibited in a warm situation in the shrubbery. All the varieties of the myrtus communis flower here in July and August; the broad-leaved Roman kind in particular is often covered with flowers, which in some are succeeded here by berries ripening in winter. The flowers of most of the sorts are small, but numerous; and are all formed each of five oval petals and many stamina. As all these plants require protection in this country, they must be kept always in pots, for moving to the proper places of shelter, according to their nature; the myrtus communis and varieties to the green-house in winter; the other delicate kinds to the stove, to remain all the year; therefore let all the sorts be potted in light rich earth; and, as they advance in growth, shift them into larger pots, managing the myrtles as other green-house shrubs, and the stove kinds as other woody exotics of the stove. The leaves and flowers of the common upright myrtle have an astringent quality, and are used for cleansing the skin, fixing the teeth when loosened by the scurvy, and strengthening the fibres. From the flowers and young tops is drawn a distilled water that is detersive, astringent, cosmetic, and used in gargles. A decoction of the flowers and leaves is applied in fomentations. The berries have a binding detersive quality; and the chemical oil obtained from them is excellent for the hair, and used in pomatums and most other external beautifiers of the face and skin. As an internal medicine these berries have little or no merit.

2. M. pimenta, pimento, Jamaica pepper, or all-spice tree, grows above thirty feet in height and two in circumference; the branches near the top are much divided and thickly beset with leaves, which by their continual verdure always give the tree a beautiful appearance; the bark is very smooth externally, and of a gray color; the leaves vary in shape and in size, but are commonly about four inches long, veined, pointed, elliptical, and of a deep shining green color; the flowers are produced in bunches or panicles, and stand upon subdividing or trichotomous stalks, which usually terminate the branches; the calyx is cut into four roundish segments; the petals are also four, white, small, reflex, oval, and placed opposite to each other between the segments of the calyx; the filaments are numerous, longer than the petals, spreading, of a greenish-white color, and rise from the calyx and upper part of the germen; the anthers are roundish, and of a pale yellow color; the style is smooth, simple, and erect; the stigma is obtuse; the germen becomes a round succulent berry, containing two kidney-shaped flattish seeds. This tree is a native of New Spain and the West India Islands. In Jamaica it grows very plentifully; and in June, July, and August, puts forth its flowers, which, with every part of the tree, breathe an aromatic fragrance. The berries, when ripe, are of a dark purple color, and full of a sweet pulp, which the birds devour greedily, and, muting the seeds, afterwards propagate these trees in all parts of the woods. It is thought that the seeds passing through them in this manner undergo some fermentation, which fits them better for vegetating than those gathered immediately from the tree. The pimento is a most beautiful odoriferous evergreen, and exhibits a fine variety in the stove at all seasons. It flowers with great beauty and luxuriance. It should be potted in rich light earth, and remain always in the stove. It was first introduced and cultivated in this country by Mr. Philip Miller in 1739. Pimento berries were chiefly imported into Britain from Jamaica; whence the name Jamaica pepper. It is also

called all-spice, from its taste and flavor being supposed to resemble those of many different spices mixed. When the berries arrive at their full growth, but before they begin to ripen, they are picked from the branches, and exposed to the sun for several days, till they are sufficiently dried; this operation is to be conducted with great care, observing that on the first and second day's exposure they require to be turned very often, and always to be preserved from rain and evening dews. After this process is completed, which is known by the color and rattling of the seeds in the berries, they are put up in bags or hogsheads for the market. This spice, which was at first brought over for dietetic uses, has been long employed in the shops as a succedaneum to the more costly oriental aromatics; it is moderately warm, of an agreeable flavor, somewhat resembling that of a mixture of cloves, cinnamon, and nutmegs. Distilled with water it yields an elegant essential oil, so ponderous as to sink in the water, in taste moderately pungent, in smell and flavor approaching to oil of cloves, or rather a mixture of cloves and nutmegs. To rectified spirit it imparts, by maceration or digestion, the whole of its virtue; in distillation it gives over very little to this menstruum, nearly all its active matter remaining concentrated in the inspissated extract. Pimento can scarcely be considered as a medicine; it is, however, an agreeable aromatic, and on this account is not unfrequently employed with different drugs, requiring such a grateful adjunct. Both the pharmacopœias direct an aqueous and spirituous distillation to be made from these berries, and the Edinburgh College orders also the oleum essentiale piperis Jamaicensis. See PIMENTO.

MYSELF', *n. s.* My and self. An emphatical reflective word added to I; as I myself do it, that is, not I by proxy.

As his host,
I should against his murtherer shut the door,
Not bear the knife *myself*. *Shakspeare. Macbeth.*

Myself shall mount the rostrum in his favour,
And try to gain his pardon. *Addison.*

They have missed another pain, against which I should have been at a loss to defend *myself*.
Swift's Examiner.

But just as he began to tell,
The auld kirk-hammer strak the bell
Some wee short hour ayont the twal,
Which raised us baith:
I took the way that pleased *mysel*,
And sae did Death.
Burns.

MYSIA, a country of Asia Minor, generally divided into Major and Minor.

MYSIA MAJOR had Æolia on the south, the Ægean Sea on the west, and Phrygia on the north and east. Its chief cities were Cyzicum, Lampsacus, &c.

MYSIA MINOR was bounded on the north and west by the Propontis and Bithynia, and Phrygia on the north and south borders.

MYSIANS, the inhabitants of Mysia. They were once very warlike, but they greatly degenerated, and the words Mysorum ultimus were emphatically used to signify a person of no merit. The ancients generally hired them to attend their funerals as mourners. They were once governed by monarchs, and were supposed to be descended from the

MYSIANS of Europe, a nation who inhabited that part of Thrace which was situated between Mount Hæmus and the Danube.

MYSLENICE, a district of Western or Austrian Poland bounded by Cracow on the north, Silesia on the west, and Hungary south. It contains 1230 square miles, and about 160,000 inhabitants. Besides the Vistula, it is watered by the less rivers Sola, Skawa, and Raba. The soil is very fertile, but by no means well cultivated.

MYSOL, one of the first of the Papua Islands west of New Guinea, and in part dependent on the Moluccas. It is also called Mixoal, and is fifteen leagues east of Ceram, and fourteen leagues long east and west; it has the good harbour of Ef be, formed by a little island on the south. Pulo Popo and Geby are islands of some size northwest of Mysol, and in the Gillolo passage. Birds of paradise frequent this island, and are caught by the Mahometan settlers on the coast with bird lime. The black loorg, a scarce oriental bird, is also found here.

MYSON, a native of Sparta, one of the seven wise men of Greece. When Anacharsis consulted the oracle of Apollo, to know which was the wisest man in Greece, he received for answer, he who is now ploughing his fields. This was Myson.

MYSORE, or MAISOOR, is a large province of the south of India, situated chiefly between 11° and 15° N. lat., and now surrounded by the British territories, of the Madras presidency: while the existing rajah is also dependent on British protection. This province consists of high table land generally 3000 feet above the level of the sea, from which rise a number of hills, containing the sources of the Cavery, Toombuddra, Vedewati, Bhadri, Penar, &c. The climate is temperate and healthy; and the rainy season more moderate, while much longer, than on either of the sea coasts: during other seasons of the year the province is frequently refreshed by showers. Its soil is rich in all the grains and vegetables of India, and many of the fruits of Europe flourish here; the cultivation being much aided by judicious irrigation. The inhabitants are Hindoos. The animal produce consists in horses, cattle, sheep, and swine, all of them of small size. The Mysore is divided into the three districts of Patna, Nagara, and Chatrakal; each managed by an amildar, or officer of justice, police, and revenue.

The ancestor of the present restored family is said to have been a principal herdsman, who emigrated with his followers and their flocks from the province of Gujerat. The first person known in history to have distinguished himself was named Vijeya. He married the heiress of the Wadiar, or chief of the town of Caroogully and its dependencies, and succeeded his father-in-law. His successors for a period of some length are not known; but in the year 1507 Cham Raj I. took possession of the government, acknowledging himself a subject of the Maha Rajah of Annagoondy, a descendant of the ancient Hindoo

monarchs of Bijanagur. Tim Raj succeeded in 1548, and annexed other districts to his government. His successor from 1571 to 1576 was Heere Cham Raj, who was succeeded by his cousin Raj Wadeyar. This chief annexed to his own province that of the rajah of Chickraipatam, and took in 1610 possession of the city and fortress of Seringapatam. This event is considered as the era of the Mysore sovereignty.

He afterwards subdued several neighbouring Wadeyars, and imprisoned them at Seringapatam. He was succeeded in 1617 by his grandson Cham Raj II., who added considerably to the Mysore territory, and died in 1637. In 1659 reigned Canty Revy Larsa Raj, the first prince who established a mint, and coined the fanams and pagodas which still go by his name. His successors were Dud Deo Raj who died in 1672, and Chick Deo Raj who died in 1704, having completed the subjugation of the landholders, and made a number of prudent regulations which still exist. Among other accessions he acquired by purchase the town and fortress of Bangalore, and sent an embassy to the Mogul emperor Aurungzebe, who granted him permission to sit on an ivory throne, still in existence and used on the late installation of Tippoo Saib's successor. Canty Raj, son of the last sovereign, though born deaf and dumb, mounted the throne in 1704. It was in this reign that the great influence of the Dulwoy or prime minister commenced, which rendered the rajah ever afterwards a mere pageant. After a nominal reign of ten years this rajah was succeeded by Dud Kishen Raj, who died, after an inglorious reign, in 1731. He was succeeded by Cham Raj III., who was deposed and imprisoned in the year 1734. On this event, the ministers of Mysore chose a boy of five years old, of another branch of the royal family, named Chick Kishen Raj, to be their nominal chief. The public business was entirely managed in the offices of, 1st, The Dulwoy or commander-in-chief; 2dly, the Serv Adikar, or comptroller of the revenue; and 3dly, the Purdhan or privy counsellor. Under the command of Nunjeraje Dulwoy, a large Mysorean army marched to the assistance of the British, and their ally the Nabob Mohammed Aly, in 1753; but as the bribe held out for his assistance (the cession of the fortress of Trichinopoly) was not complied with, he soon became our enemy, and for nearly two years laid siege to Trichinopoly. Mysore was now invaded by the Mahrattas, and from this period may be dated the decline of the old power of Mysore, or rather the downfall of the Hindoo dynasty, and the rise of Hyder Aly and his successor.

The great-grandfather and grandfather of this prince were religious persons, who emigrated from the Punjab and settled in the vicinity of the tomb of Geeso Doraz, a famous saint. His father was named Futteh Aly, and, having entered the army as a private soldier, he rose by degrees to the rank of Naick, or commander of a regiment. He was killed in an engagement about the year 1729. The widow, accompanied by her two sons Shabaz Saheb, and Hyder, boys, took refuge with her brother Ibrahim, who commanded a small body of peons or infantry, in the service of the Bangalore government; and, the elder brother Shabaz having attained a sufficient age, his uncle procured for him a recommendation to an officer of rank in Seringapatam. Here he gradually rose to the command of 200 cavalry and 1000 infantry. Hyder, profiting by the good fortune of his brother, does not however appear to have distinguished himself till the year 1749, when, during the siege of Deonhally, he attracted the attention of the Dulwoy Nunjeraje; and was promoted on the capitulation of the place to the command of its garrison. Permission was also granted him to augment the number of troops. During a war between the Nizam Nasi Jung, and Muzuffir Jung, in the year 1750, Hyder commanded part of the Mysore troops; he was again employed at the siege of Trichinopoly; and during the battle of the 17th of August 1754, between the British and French, with their allies, Hyder attacked and seized a large part of the baggage of the British.

In 1758 a mutiny having broken out amongst the troops of his sovereign at Seringapatam, Hyder Aly was ordered to march thither; and, having succeeded in quelling the revolt and disbanding the army, the fortress and adjoining district of Bangalore were given him as a personal estate. In the following year he was invested with the command of all the troops employed against the Mahrattas, and returned in triumph to Seringapatam. His reception at court by the young rajah and his ministers was most gracious; and he was distinguished by the title of Behauder (the champion), which he ever after retained. In the month of May, 1760, Hyder was induced by the intrigues of the French to detach to their assistance almost the whole of the regular army then at Seringapatam; and now whilst he continued to reside at a short distance from the city, with a guard of only 100 horse, and a battalion of infantry, the mother of the rajah, a woman of considerable talent, weary of his tyranny, entered into a secret treaty with the Mahrattas to depose him from his command. The force of the chief she selected for her confidence was encamped on the frontiers, and he agreed to send, on an appointed day, 6000 chosen horse to her assistance; but owing to an unforeseen procrastination, and a precipitate attack from the foot, on the cantonment of Hyder, he effected his escape with his cavalry to Bangalore. This was in August 1760. Immediately he sent off to recal the army from the Carnatic, under the command of his brother-in-law Mukhdum Sahib; and despatched orders to other detachments of his troops to join him without loss of time. What was of greater consequence, he was soon also joined by 200 French European cavalry, and 100 infantry, with some light artillery. With these forces he defeated the Mysore troops in several engagements, and in May 1761 obtained possession of the person of the rajah. Possessing now all the real power of a sovereign, Hyder by means of presents and intrigue procured from the Nizam of the Dekhan a grant of the zemindary of Mysore, with a patent constituting him a heft hazary, or commander of 7000 horse in the imperial service, and the title of Nabob Hyder Aly Khan Behauder. In 1763 he conquered Bednoor, Soonda,

and Canara; and in the three succeeding years Calicut and Malabar. In 1766 the rajah died; and though his son was advanced nominally to the throne, as well as *his* son, from whom the existing rajah is descended, Hyder in reality exercised from this period the whole sovereignty of Mysore, and conducted that series of able efforts against the British, and his other enemies, already detailed in our article INDIA.

MYSORE, or MAISOOR, a considerable town of the south of India, capital of the province bearing this name, is situated about nine miles from Seringapatam, on the top of a high hill. It was formerly called Pooragurry; but, in the middle of the sixteenth century, was much improved by one of the rajahs, and its name changed to Mahesh Ajaoor, shortened to Maisoor. In 1593 it was taken by the sovereign of Bejapore and held for a short period. Soon after this the seat of government was transferred to Seringapatam; but the fortress here was still kept in repair. In 1759 the expelled Dulwoy Nunjeraje got possession of Mysore, and retained it for three months, in despite of the efforts of Hyder Aly. In 1787 Tippoo Sultan ordered the fort and town to be levelled with the ground, and the materials to be used in erecting another fortress on a neighbouring height. The town was in consequence destroyed, and the inhabitants compelled to emigrate; but the new situation called Nuzerbar having been found destitute of water, and the events of the war of 1799 having caused a new revolution, the materials which had been removed were brought back, and employed in rebuilding the palace of the young rajah. The town, now the seat of government, is about a mile in length, and continues to increase yearly. It is well supplied with water and provisions, and is considered a comparatively healthy place. Long. 76° 52′ E., lat. 12° 16′ N.

MYSTAGOGUE, *n. s.* Gr. μυσαγωγός; Lat. mystagogus. One who interprets divine mysteries; or one who keeps and exhibits church relics.

MYSTERIES.

MYSTERY, *n. s.*
MYSTE'RIANT,
MYSTE'RIOUS, *adj.*
MYSTE'RIOUSLY, *adv.*
MYSTE'RIOUSNESS, *n. s.*
MYS'TERIZE, *v. a.*

Fr. *mystere;* Lat. *mysterium;* Greek μυστηριον, a secret. Strictly, that which is partly revealed and partly secret; something profound beyond comprehension; an enigma; any thing artfully made difficult; a trade or calling, so called, as Warburton thinks, from Fr. *mestier:* a mysteriant was one who presided over the ancient mysteries: to mysterise is, to explain mysteries or enigmas; the other words follow the senses of mystery.

And that which is the noblest *mysterie,*
Brings to reproach and common infamy.
Spenser.

They can judge as fitly of his worth,
As I can of those *mysteries* which heaven
Will not have earth to know.
Shakspeare. Coriolanus.

To thy great comfort in this *mystery* of ill opinions, here's the twin brother of thy letter.
Id. Merry Wives of Windsor.

Instructions, manners, *mysteries,* and trades,
Degrees, observances, customs, and laws,
Decline to your confounding contraries.
Shakspeare.

Holy *mysteries* [must be studied] with this caution, that the mind for its module be dilated to the amplitude of the *mysteries,* and not the *mysteries* be straitened and girt into the narrow compass of the mind. *Bacon.*

Upon holy days, let the matter of your meditations be according to the *mystery* of the day; and, to your ordinary devotions of every day, add the prayer which is fitted to the *mystery.* *Taylor.*

Our duty of preparation contained in this one word, try or examine, being after the manner of *mysteries, mysteriously* and secretly described, there is reason to believe that there is in it very much duty. *Id. Worthy Communicant.*

My purpose is, to gather together into an union all those several portions of truth, and differing apprehensions of *mysteriousness.* *Id.*

Then the true Son of knowledge first appeared,
And the old dark *mysterious* clouds were cleared.
Denham.

God at last
To Satan, first in sin, his doom applied,
Though in *mysterious* terms.
Milton's Paradise Lost.

Each stair *mysteriously* was meant.
Milton.

Mysterizing their ensigns, they make the particular ones of the twelve tribes accommodable unto the twelve signs of the zodiack.
Browne's Vulgar Errours.

There often fall out so many things to be done on the sudden, that some of them must of necessity be neglected for that whole year, which is the greatest detriment to this whole *mystery.*
Evelyn's Kalendar.

Important truths still let your fables hold,
And moral *mysteries* with art unfold. *Granville.*

Those princes who were distinguished for *mysterious* skill in government, found, by the event, that they had ill consulted their own quiet, or the happiness of their people. *Swift.*

If God should please to reveal unto us this great *mystery* of the Trinity, or some other *mysteries* in our holy religion, we should not be able to understand them, unless he would bestow on us some new faculties of the mind. *Id.*

A proper secresy is the only *mystery* of able men; *mystery* is the only secresy of weak and cunning ones. *Chesterfield.*

MYSTERY is derived from the Greek μυστηριον, and in its modern acceptation imports something above human intelligence, something awfully obscure and enigmatical; any thing artfully made difficult; the secret of any business or profession. The word is often used by the founder of the Christian religion, and more frequently by his apostles, especially St. Paul. In these cases it generally signifies those doctrines of Christianity which the Jews, prior to the advent of the Messiah, either could not or did not un-

derstand. The Trinity in Unity, and the Unity in Trinity; the incarnation of the Son of God; the union of two natures in one and the same person, &c., we generally call mysteries, because they are above human comprehension. But our intention in this article is to lay before our readers an account of those απορρητα, or secret rites of the pagan superstition, which were carefully concealed from the knowledge of the vulgar, and which are universally denominated mysteries.

The word Μυστηριον is evidently deduced from Μυστηρ; but the origin of this last term is not altogether so obvious. The etymologies of it exhibited by the learned are various; some of them absurd. The mysteries were imported into Greece from the East. In those regions, then, we ought to look for the etymology of the word Mistar, or mistur (Heb. סתר,) signifies any place or thing hidden or concealed. Mistur is therefore, probably, the root of the word Μυστηρ, myster.

The avarice and ambition of the pagan priests doubtless gave birth to the institution of mysteries. The ministers of that superstition alleged that some articles of their ritual were too profound to be understood by the vulgar; others too sacred to be communicated to men in a situation subordinate or contemptible. Things sacred and venerable, they alleged, would contract a taint and pollution by an intercourse with untutored souls. These were the ostensible motives for making that odious distinction between the popular religion, and that contained in the sacred and mysterious ritual. Of all the legislators of antiquity, the Cretan alone was prudent enough to see the absurdity of this, and to adopt a more liberal plan. Diodorus the Sicilian informs us, that the mysteries of Eleusis, Samothracia, &c., which were elsewhere buried in profound darkness, were among the Cretans taught publicly, and communicated to all the people. Minos, however, was a successful legislator, and his pretended intercourse with Jupiter Idæus extended his influence and established his authority. He was therefore not under the necessity of calling in the mysteries to his assistance.

Mysteries were the offspring of Egyptian priestcraft. They were instituted with a view to aggrandise that order of men, to extend their influence, and to enlarge their revenues. To accomplish these objects they applied every engine to besot the multitude with superstition and enthusiasm. They taught that themselves were the distinguished favorites of heaven, and that celestial doctrines had been revealed to them, too holy to be communicated to the profane vulgar, and too sublime to be comprehended by them. After the mysteries were instituted, and had acquired a high reputation, legislators, magistrates, judges, and monarchs, joined in the imposture, with the same views. Priests and princes were actuated by the same spirit. The combination was equally advantageous to both.

The celebrated Mosheim is of opinion, that the mysteries were entirely commemorative; that they were instituted to preserve the remembrance of heroes and great men, who had been deified in consideration of their martial exploits, useful inventions, public virtues, and the benefits conferred on their contemporaries. In opposition to this singular opinion, it may be urged, that the method of preserving the memory of great and illustrious men, generally adopted, was the establishing festivals, celebrating games, offering sacrifices, singing hymns, dancing, &c. We can discover no secret mysteries instituted for that purpose, at least in their original intention. The mysteries were performed in secret; they were intended to be communicated only to a few; of course, had they been instituted to immortalise the memory of heroes and great men, the authors would have acted the most foolish and inconsistent part imaginable. Instead of transmitting the fame of their heroes with eclat to posterity, they would thus have consigned it to eternal oblivion.

The mysteries were therefore the offspring of bigotry and priestcraft; they originated in Egypt, the native land of idolatry. In that country the priesthood ruled predominant. The kings were engrafted into their body before they could ascend the throne. 'They were possessed,' says Diodorus, 'of a third part of all the land of Egypt. All the orientals, but especially the Egyptians, delighted in mysterious and allegorical doctrines. Every maxim of morality, every tenet of theology, every dogma of philosophy, was wrapt up in a veil of allegory and mysticism. This propensity conspired with avarice and ambition to dispose them to a dark and mysterious system of religion.' 'The Egyptians,' says Plutarch, 'were a gloomy race of men; they delighted in darkness and solitude. Their sacred rites were generally celebrated with melancholy airs, weeping, and lamentation. This gloomy bias must have stimulated them to a congenial mode of worship.'

The rites of Osiris were performed with loud shrieks and lamentations when he was put into the coffin; and with the most extravagant mirth when he was raised from the dead, or supposed to be found again. Their hymns were always composed in melancholy affecting strains: and consisted of lamentations for the loss of Osiris, the mystic flight of Bacchus, the wandering of Isis, and the sufferings of the gods. The Canaanites, who were a kindred tribe of the Mizraim or Egyptians, imitated them in their sacred rites. At Byblus, Berytus, Sidon, and Tyre, they used mournful dirges for the death of Adonis or Tammuz, who was the same with the Egyptian Osiris, i. e. the sun. The Egyptians then instituted a mode of worship congenial with their natural gloomy disposition. The recess of the sun towards the southern hemisphere was the death of Osiris; the wanderings of Isis, in search of her husband and brother, allegorically imported the longings of the earth for the return of the fructifying influences of the solar heat. When that luminary returned towards the summer solstice, and grain, trees, fruits, herbs, and flowers, adorned the face of nature, another festival was celebrated of a different complexion. All Egypt was dissolved in the most extravagant mirth and jollity. During the celebration of those festivals, the priests formed allegorical re-

presentations of the sun and the earth. They personified both, and allegorised their motions, aspects, relations, accesses, recesses, &c., into adventures, peregrinations, sufferings, contests, battles, victories, defeats, &c. These, in time, were held as real occurrences, and became essential articles of the popular creed. From this source were derived the conquests of Dionysias or Bacchus, so beautifully exhibited by Nonnius in his Dionysiacs; the wanderings of Io, afterwards adorned by Æschylus, &c.

Whether the Egyptians deified mortal men in the earliest ages has been much controverted. Jablonski endeavours to prove the negative. Plutarch tells us that Isis, Osiris, Horus, Anubis, and Typhon, were once mortal persons, who were exalted into demons after their death. Diodorus, in his history of Isis and Osiris, Pan, Hermes, &c., represents them as human personages; and says that the Egyptians imagined that after their decease they transmigrated into stars. From these authorities we may believe that the Egyptians deified those who had distinguished themselves by prowess, wisdom, arts, and inventions. This was a constant practice among the Greeks. The exploits of those heroes had been disguised by allegorical traditions. They had been magnified beyond all dimensions, to astonish and intimidate the vulgar, and to gratify their propensity towards the marvellous. All these secrets were developed in the mysteries. The catechumens were informed of every particular relating to the birth, the life, the exploits, the adventures, misfortunes, and decease, of those heroic personages. The magicians of Egypt were abundantly qualified for exhibiting angels in machines. The souls of virtuous men, who had not been eminent enough to merit the honor of deification, were shown in all the perfection of Elysian felicity; and the souls of tyrants, and of the children of Typhon (the evil spirit of the Egyptians), were shown in Tartarus, suffering all the extremes of infernal punishment. From these exhibitions the mystagogues took occasion to read their pupils suitable lectures on the happy tendency of a virtuous conduct, and the misery consequent upon a contrary course. They set before them immortal renown, deification, and elysium, on the one hand, and eternal infamy and misery on the other. This may be deemed the chief advantage accruing from this institution.

The catechumens were also taught many secrets of physiology. This Pharnutus every where affirms, especially in his last book De Nat. Deor., towards the end. Plutarch, too, says that most of the Egyptian fables were allegorical details of physical operations. Eusebius acquaints us that the physiology, not only of the Greeks, but likewise that of the barbarians, was nothing but a science of nature, a concealed and dark theology, involved in fable, whose hidden mysteries were so veiled over with allegories, that the ignorant million were as little capable of comprehending what was said, as what was suppressed in silence. Dionysius of Halicarnassus says that the fables of the Greeks detail the operations of nature by allegories. Proclus makes the same observation. The Egyptians, says he, taught the latent operations of nature by fables. These physiological secrets were expounded to the initiated; and that the Egyptian priests were deeply skilled in physiological science cannot be disputed. But the vulgar were excluded from all those secrets which were reserved for the nobility and sacerdotal tribes.

The original subjects of these institutions were the articles specified above: but, in process of time, numerous new rites, ceremonies, usages, and even doctrines, were superinduced, which were utterly unknown to the original hierophants. Their subjects were at first simple and easy to be comprehended; in time they became complex, intricate, and unintelligible. To celebrate those mysteries with the greater secrecy, their temples were so constructed as to favor the artifice of the priests. The fanes, in which they performed their rites and ceremonies, were subterraneous apartments, constructed in such a manner that every thing that appeared in them breathed an air of solemn secrecy. Their walls were covered with hieroglyphic paintings and sculpture, and the altar was situated in the centre of the apartment. Modern travellers have discovered vestiges of them; and Shaw, Pococke, Belzoni, and others, describe those dark abodes. In those subterraneous mansions, which the priests had planned with the most consummate skill, the kings, princes, and great men of the state, encountered the dangers and hardships contrived to prove their prudence, fortitude, patience, abstinence, &c. These were appointed to try their merit; and by these the hierophants decided whether they were duly qualified. Upon such occasions those magical tricks were exhibited, for which the magicians of Egypt were so much celebrated. The strange and terrifying sights, the alternate successions of light and darkness, the hideous spectres, the frightful howlings re-echoed by these infernal domes, the scenes of Tartarus and Elysium, exhibited alternately and in quick succession, must have made a deep and lasting impression on the mind of the affrighted votary.

From the scenes exhibited in the Egyptian mysteries, especially those of Isis and Osiris, the Greeks seem to have copied their ideas of the infernal regions, and the subterraneous mansions of departed souls. Many colonies of Egyptians settled in Greece. From these the *αοιδοι*, or early bards of Greece, learned them imperfectly. Of course we find Homer's account of the infernal regions, and of the state of departed souls, lame and incoherent. Succeeding bards obtained more distinct information. Euripides, Aristophanes, Plato, &c., paved the way for Virgil, who borrowed his ideas from all of them. These, under his hand, in the sixth Æneid, grew into a system beautiful, regular, uniform, and consistent. The materials were created to his hand; he had only to collect, polish, arrange, and connect them.

Every god and goddess of Egypt respectively had their mysteries; but, as those of Isis and Osiris were the most celebrated, they became principal objects of pursuit, as well as of imitation, to the neighbouring nations. These were carried into Persia by Zoroastres, or Zerdusht, and consecrated to Mithras. Orpheus imported

them into Thrace; Cadmus brought them into Bœotia, where they were sacred to Bacchus. Inachus established them at Argos in honor of Juno; Cyniras in Cyprus, where they were dedicated to Venus. In Phrygia they were sacred to Cybele, the mother of the gods. This progress of the mysteries is rendered the more probable, when we consider that a great part of Greece was planted with colonies from Egypt, Phœnicia, Palestine, &c. Orpheus, if not an Egyptian, was at least of oriental extraction. Inachus, Cadmus, and Melampus, are universally allowed to have been Egyptians. Erechtheus, in whose reign the Eleusinian mysteries were established, was an Egyptian by birth, or sprung from Egyptian ancestors. The Egyptians, then, in those early ages, did not view the Greeks in the light of aliens, but as a people nearly related, either to themselves, or their brethren the Phœnicians. Although every particular deity had his own peculiar mysterious sacred rites, yet Mithras, Osiris, and Ceres, were deemed the most august, and were universally worshipped.

Mithras, or, according to the Persian, Mihr, was one of the great gods of the Asiatics. His worship was for many ages confined to Persia. Afterwards it was propagated so far and wide, that some have imagined they have discovered vestiges of it even in Gaul. Mihr, according to Dr. Hyde, signifies love, and likewise the sun. It is by others reckoned a cognate of the Hebrew word muthir, excellence. Mithras was the sun among the Persians; and in honor of that luminary this institution was established. Mithras, according to Plutarch, was the middle god between Oromaz and Ahriman, the two supreme divinities of Persia. But the fact is, that the solar planet was the visible emblem of Oromaz, the good genius of the Persian tribes, and the same with the Osiris of the Egyptians. The grand festival of Mithras was celebrated six days, in the middle of the month Mihr, which began September 30th, and ended October 30th.

Zoroaster worshipped Mithras, or the sun, in a certain natural cave, which he formed into a temple, where Mithras was represented as presiding over the lower world with all the pomp of royal magnificence. In it were the symbols of Mithras and of the world, philosophically and mathematically exhibited. Mithras was sometimes represented as mounted on a bull, which he kills with a sword. On some bass reliefs still existing, he appears as a young man with his tiara turned upward, clothed with a short tunic and breeches, after the Persian fashion, or with a small cloak. Over the cave were seen the chariots of the sun and moon, and divers constellations. In one of those caves the ceremonies of initiation were performed; but, before the candidate could be admitted, he was forced to undergo a course of probationary exercises, so numerous, and so rigorous, that few had courage and fortitude to go through them. He was obliged to live a life of virtue and abstinence for seven years previous to his initiation. Some months before it, he was obliged to submit to an austere fast of fifty days. He was to retire several days to a deep and dark dungeon, where he was successively exposed to all the extremes of heat and cold. Meantime he frequently underwent the bastinado, which the priests applied without mercy. Some say this fustigation continued two whole days, and was repeated no fewer than fifteen times. In the course of these probationary exercises the candidate was generally reduced to a skeleton; and some actually perished in the attempt.

Upon the eve of the initiation, the aspirant braced on his armour, to encounter giants and savage monsters. In those spacious subterraneous mansions a mock hunting was exhibited. The priests, and all the subordinate officers, transformed into lions, tygers, leopards, bears, wolves, &c., assailed him with loud howlings, roaring, and yelling, and every instance of ferine fury. In these mock combats the hero was often in danger of being really worried, and always came off with bruises and wounds. Lampridius informs us that, when the emperor Commodus was initiated, he killed one of the priests who attacked him in the form of a wild beast. The Persians worshipped Mithras by a perpetual fire: hence the votary was obliged to undergo a fiery trial, by passing seven times through the sacred fire, and each time plunging himself in cold water. Some have made these probationary penances amount to eighty; others only to eight. The candidate, having undergone all these torturing trials with fortitude, was declared a proper subject for initiation. But, before his admission, he was to bind himself by the most horrible oaths and imprecations, never to divulge an article of all that should be communicated to him.

What *απορρητα* or ineffable secrets were imparted to the initiated it is impossible to discover. But we may rest assured, that the traditions concerning the origin of the universe; the nature, attributes, perfections, and operations, of Oromazdes; the baleful influences of Ahriman; and the benign effects of the government of Mithras, were unfolded and inculcated. The phenomena of nature, discovered by the magi, were also exhibited; and the application of their effects, to astonish and delude the vulgar, were taught. Virtue was warmly recommended, and vice represented in the most frightful colors. These initiations are mentioned by Lampridius, Justin, and Tertullian. The last of these speaks of a kind of baptism, which washed from the souls of the initiated all the stains they had previously contracted; and mentions a particular mark which was imprinted upon them. There was presented to the initiated a crown suspended on the point of a sword; but they were taught to say, Mithras is my crown; to intimate that they looked upon the service of that deity as their chief honor.

After the Teletæ, or rites which confer perfection, were finished, the pupil was brought out of the cave or temple, and with great solemnity proclaimed a Lion of Mithras; a title which imported strength and intrepid courage in the service of the deity. They were now consecrated to the god, and were supposed to be under his immediate protection; which animated them to the most daring enterprises. The worship of Mithras was introduced into the Roman empire towards the end of the republic, where it made

very rapid progress. When Christianity began to make a figure in the empire, the champions for paganism proposed the worship of this power of benevolence, to counterbalance that worship which the Christians paid to Jesus Christ, the true Sun of righteousness. But this mode was soon abolished, together with the other rites of paganism. The Persian grandees affected names compounded with Mithras: hence Mithridates, Mithrobarzanes, &c. Hence, too, the precious stone called Mithridat, which by the reflection of the sun sparkled with a variety of colors. (Solinus, c. x.) There is likewise a certain pearl, of many different colors, which they call Mithras. It is found among the mountains near the Red Sea; and, when exposed to the sun, it sparkles with a variety of dyes. We likewise find a king of Egypt of that name who reigned at Heliopolis; who, in consequence of a dream, erected an immense obelisk to the Sun, near that city. The votaries of Mithras pretended that he was sprung from a rock, and that therefore the place where the mysterious ceremonies were communicated to the initiated was always a cave. Many reasons have been assigned for the origin of this rockborn deity. Dr. Doig of Stirling supposes that, as 'a rock is the symbol of strength and stability, the dominion of Mithras, in the opinion of his votaries, was firm as a rock, and stable as the everlasting hills.' Mr. Bryant, in his Analysis of Mythology, discusses this point with deep research.

D'Anquetil briefly delineates the functions of this deity. 'The peculiar functions of Mithras are to fight continually against Ahriman and the impure army of evil genii, whose constant employment is to scatter terror and desolation over the universe; to protect the frame of nature from the demons and their productions. For this purpose he is furnished with 1000 ears and 1000 eyes, and traverses the space between heaven and earth, his hands armed with a club or mace. Mithras gives to the earth light; to men, corn, pastures, and children; maintains harmony upon earth, watches over the law,' &c.

The original Dionysius or Bacchus was the Osiris of the Egyptians, or the Sun. The Greek name of that deity is plainly oriental, being compounded of δι, bright; and nasia or nasa, in the Æolic dialect νυσα, a prince. Herodotus tells us, that Osiris is Dionysius in the Greek language: Martianus Capellus expresses the same idea. The name Osiris has much embarrassed critics and etymologists. The learned Jablonski has taken much pains to investigate the etymology of it. If it is granted that the Hebrew and Egyptian tongues are cognate dialects, it is the Chosher or Oshir of the former, which imports, to make rich. The term Osiris was applied both to the sun and to the Nile; both which by their influence contributed respectively to enrich and fertilise the land of Egypt. Joh, or Io, was the name of the moon.

In the earliest periods of the Egyptian monarchy there appeared two illustrious personages. Osiris and Isis, the children of Cronus; and they were married, according to the custom of the Egyptians. As the brother and husband had assumed the name of the Sun; so the sister and consort took that of Isis, that is, the woman, a name which the Egyptians applied both to the moon and to the earth. Osiris having left Isis regent, with Hermes as her prime minister, and Hercules as general of her armies, quitted Egypt with a numerous body of troops, attended by companies of fauns, satyrs (men and women in these habits), singing women, musicians, &c., and traversed all Asia to the eastern ocean. He then returned homeward through the upper Asia, Thrace, Pontus, Asia Minor, Syria, and Palestine. Wherever he marched, he conferred numberless benefits on the savage inhabitants. He taught them husbandry, gardening, botany, &c.; instructed them in the culture of the vine; and, where vines could not be produced, he taught them to produce fermented liquor from barley. He built many cities, planted numerous colonies, instituted wholesome laws, established religious rites, and left priests to teach the observance of them. In short, he left every where lasting monuments of his generosity and beneficence. Where he found the people docile and submissive, he treated them with kindness and humanity: if any showed themselves obstinate, he compelled them to submit to his institutions by force of arms.

Most persons have considered this expedition as fabulous. At the end of three years he returned to Egypt, where his brother Typhon had been forming a conspiracy against his life. He invited Osiris, with some other persons, to an entertainment. When the repast was finished he produced a beautiful coffer, highly finished, and adorned with studs of gold; promising to bestow it on the person whom it should fit best. Osiris made the experiment. The conspirators nailed down the cover upon him, and threw the coffer into the river. This coffer, now the coffin of Osiris, was wafted by the winds and waves to the neighbourhood of Byblus, a city of Phœnicia, where it was cast on shore, at the foot of a tamarind tree. Isis, in the mean time, disconsolate, attended by Anubis, ransacked every quarter in search of Osiris. At length, being informed that his body was lodged near Byblus, she repaired to that city, was introduced to the queen, and after various adventures recovered the corpse of her husband, which she carried back to Egypt: but Typhon found her on the banks of the Nile; and, having robbed her of her charge, cut the body into fourteen parts, and scattered them up and down. Once more, Isis set out in quest of those parts, all of which, one excepted, she found, and interred each in the place where she found them; and hence the many tombs of Osiris in that country. These tombs were denominated taposins by the natives. Many other fabulous adventures were ascribed to these two personages. See Diod. Sic. Bryant's Analysis of Ancient Mythology, and M. Cour de Gebelin.

To commemorate these adventures, the mysteries of Isis and Osiris were instituted; and from them those of Bacchus and Ceres, among the Greeks, were derived. Of the Egyptian solemnity, we have an exact epitome in one of the fathers of the church. 'They deplore annually, with deep lamentations and shaved heads, the

catastrophe of Osiris, over a buried statue of that monarch. They beat their breasts, mangle their arms, tear open the scars of their former wounds; that by annual lamentations the catastrophe of his miserable death may be revived in their minds. After a certain number of days, they pretend that they have found the remains of his mangled body; their sorrows are lulled asleep, and they break out into immoderate joy.' Osiris and Isis were probably sovereigns of Egypt at a very early period; they had conferred many benefits on their subjects, who, from gratitude, paid them divine honors after their decease; in time they were confounded with the sun and the moon; and their adventures magnified beyond all credibility, interlarded with fables, and allegorised in the mysteries.

The same mode of worship was established at Byblus, and in after ages at Tyre. The Mizraim and Chanaanim were nearly connected by blood, and their religious ceremonies were derived from the same source. Among the Phœnicians this deity obtained the names of Adonis and Bacchus. The former is rather an epithet, signifying my lord, than a name: the latter, from bahah, to weep, is evidently an allusion to the weeping with which the rites were performed. We now proceed to the mysteries of Osiris, as they were celebrated among the Greeks and Thracians, under the name of the Orgia of Dionysius or Bacchus.

Orpheus, the celebrated Thracian philosopher, had travelled into Egypt in quest of knowledge; and from that country, he imported the Bacchanalian rites. Some affirm that those rites were imported from Egypt or Phœnicia by Cadmus himself, a native of the former country, who spent some time in the latter, before he emigrated to Bœotia. Semele, the daughter of Cadmus, and the mother of the Grecian Bacchus, was struck with lightning at the very instant of his birth. The child was denominated Bacchus from the sorrow this accident occasioned in the family. Cadmus sent his infant grandson to his relations in Phœnicia or Egypt. There he was instructed in the mysteries of Isis and Osiris, and in all the magical tricks of the Egyptian priests. Thus accomplished, he returned to Thebes with the traditional retinue of the original deity, and claimed divine honors. This claim was not admitted without opposition; Pentheus, another grandson of Cadmus, was torn to pieces by the frantic Bacchanalians upon Mount Citheron, because he attempted to interrupt them in celebrating the orgia.

The Greeks attributed all the actions of the Egyptian hero to their new Bacchus. To him they ascribed all the adventures and exploits of the oriental archetype. Consequently in the orgia every thing was collected that had been imported relating to Osiris; and to that farrago was joined all that the Grecian rhapsodists thought fit to invent. Hence the religious ceremonies of the Greeks became a medley of inconsistencies. The adventures of the Theban pretender were grafted upon those of the Egyptian archetype, and out of this combination was formed a tissue of adventures disgraceful to human nature, absurd, and inconsistent. Indeed the Theban Bacchus was a monster of debauchery; whereas the Egyptian is represented as a person of an opposite character. Of course the mysteries of the former were attended with the most shocking abominations. These mysteries were first celebrated at Thebes the capital of Bœotia, under the auspices of the family of Cadmus. From this country they made their way into Greece, and all the neighbouring parts of Europe.

When the day appointed for the celebration of the orgia approached, the priests issued a proclamation, enjoining all the initiated to equip themselves according to the ritual. The votaries were to dress themselves in coats of deer skins, to loose the fillets of their hair, to cover their legs with the same stuff with their coats, and to arm themselves with thyrsi. The Bacchanalians, especially the Thracians, used often to quarrel and commit murder in their drunken revels. A law was therefore enacted, that the votaries, instead of real spears, should arm themselves with wooden weapons. The statue of the deity, which was covered with vine or ivy-leaves, was elevated on the shoulders of the priests. The cavalcade then proceeded in the following order:—First, hymns were chanted in honor of Bacchus. Horace, in his dithyrambic odes, has pointed out the subjects of these Bacchanalian songs. In the hymns attributed to Orpheus we find several addressed to this deity, under different titles. The first division of the votaries preceded, carrying a pitcher of wine, with a bunch of the vine. Then followed the he-goat; an animal odious to Bacchus, because he ravages the vines. The chanting hymns, the sacrificing the he-goat, and the revels, games, and diversions, gave birth to the dramatic poetry of the Greeks; as the persons habited as fauns, sylvans, and satyrs, furnished the name of another species of poetry. Then appeared the mysterious coffer, containing the secret symbols of the deity. These were the phallus, some grains of sesama, heads of poppies, pomegranates, dry stems, cakes baked of the meal of different kinds of corn, salt, carded wool, rolls of honey, and cheese; a child, a serpent, and a fan. Clemens Alexandrinus mentions also the dye, the ball, the top, the wheel, the apples, the looking-glass, and the fleece. The articles first mentioned were of Egyptian original; the last were superinduced by the Greeks, in allusion to his being murdered and torn in pieces when he was a child by the machinations of Juno, who prevailed with the Titans to commit the horrid deed. These last were memorials of his boyish play-things; for, says Maternus, 'the Cretans, in celebrating the rites of the child Bacchus, acted every thing that the dying boy either said, or did, or suffered.' 'They likewise,' says he, 'tore a live bull in pieces with their teeth to commemorate the dismembering of the boy.' But Porphyry says, 'that in the island of Chios they sacrificed a man to Bacchus, and mangled and tore him limb from limb.'

On the day set apart for this solemnity, men and women, crowned with ivy, their hair dishevelled, and their bodies almost naked, ran about the streets, roaring aloud Evohe Bacche!

intoxicated with wine and enthusiasm, dressed like Satyrs, Fauns, and Silenuses, in postures and attitudes the most disgustingly indecent. Next followed a company mounted upon asses, attended by Fauns, Bacchanals, Thyades, Mimallonides, Naiads, Tityri, &c., who made the adjacent places echo to their frantic howlings. After this tumultuous herd were carried the statues of victory, and altars in form of vine-sets crowned with ivy, smoking with incense. Then appeared several chariots loaded with thyrsi, arms, garlands, casks, pitchers, vases, tripods, &c. The chariots were followed by young virgins of rank, who carried the baskets and little boxes which contained the mysterious articles. These, from their office, were called cistophoræ. The phallophori followed with a chorus of itophallophori habited like Fauns, counterfeiting drunken persons, and singing in honor of Bacchus. The procession was closed by a troop of Bacchanalians crowned with ivy, interwoven with branches of yew, and with serpents. Sometimes at these scandalous festivals, naked women whipped themselves, and tore their skins in a barbarous manner. The procession terminated on Mount Citheron, when it set out from Thebes; and in other places, in some distant unfrequented desert, where the votaries practised every species of debauchery with secresy and impunity. Orpheus saw the degeneracy of these ceremonies; and in endeavouring to reform them lost his life. Pentheus suffered in the like attempt, being torn in pieces by the Bacchanalians, among whom were his own mother and aunts. For further information on this subject, we refer the reader to Diod. Sic. Apollod. Bibl Euripid. Bacchæ. Aristophanis Ranæ. Nonn. Dionys. Ban. Mythol. Voss. de orig. Idol. Fourmont, Reflexions sur l'origine des anciens peuples. Bryant's Analys., and Cour de Gebelin, Calendriers.

We proceed to the Eleusinian mysteries, which, among the ancient Greeks and Romans, were treated with a superior degree of awe and veneration. These were instituted in honor of Ceres, the goddess of corn; who, according to the most authentic accounts, was the Isis of the Egyptians. The mysteries of Osiris and Isis were originally instituted in honor of the sun and moon, and afterwards consecrated to an Egyptian prince and princess, who had been deified by that people. We know of no more exact and brilliant description of the ceremonies of that goddess, in the most polished ages of the Egyptian superstition, than what we meet with in the witty and florid Apuleius (lib. xi.), to which we refer our curious readers. By what means, and upon what occasion, those mysteries were introduced into Attica, and established at Eleusis, Diodorus Siculus illustrates: 'Erectheus,' says he, 'a prince of Egyptian extraction, once reigned at Athens. A scorching drought, during his reign, prevailed over all the world, except Egypt; which, from the humidity of its soil, was not affected by that calamity. The fruits of the earth were burnt up; and multitudes of people perished; Erectheus imported a vast quantity of grain from Egypt to Athens. The people, relieved by his munificence, unanimously elected him king, and he taught them the mysteries of Ceres at Eleusis. In those times the goddess is said to have appeared at Athens, three times; because corn was thrice imported into Attica.' Here then we have the whole mystery of the arrival of Ceres in Attica, and the institution of her mysteries at Eleusis unveiled. The whole is evidently an allegory.

Triptolemus, another Egyptian, was appointed by Erectheus to export this superfluous store. That hero, according to Pherecydes, was the son of Oceanus and Tellus, or the sea and the earth; because his parents were not known, and because he came to Eleusis by sea. The ship in which he sailed was decorated with the figure of a winged dragon; therefore, he was said to be wafted through the air in a chariot drawn by dragons. Wherever Triptolemus disposed of his corn, thither were extended the wanderings of Ceres. Together with the grain imported from Egypt, Erecthe's, or Triptolemus, or both, transported into Attica a number of priests and priestesses; who spread their rites over almost all Asia and great part of Europe. The Greek and Roman idolatry originated from them. The worship of Isis was introduced into every country where Triptolemus sold his grain. Hence the wanderings of Ceres in search of her daughter Proserpine. The disappearing of the fruits of the earth, of which Proserpine is the emblem, is the allegorical rape of that goddess, by Pluto, sovereign of the infernal regions. The wanderings of Isis in search of Osiris furnished the model for the perigrinations of Ceres.

Ceres, the Roman name of the goddess of corn, was unknown to the Greeks. They always denominated her Δημητερ, Demeter (whence Demetrius), or Damater, which is rather an epithet than a proper name; formed of the Chaldaic particle da, the, and mater, mother. Cecrops I., king of Attica, had established the worship of the Saitic Athena, or Minerva, in that region, and consecrated his capital to that deity. Erectheus introduced the worship of Isis or Damater. The subjects of Cecrops were a colony of Saites, and readily embraced the worship of Minerva; but the Aborigines, being accustomed to a maritime life, were more inclined to consecrate their city to Neptune. Cecrops by a stratagem secured the preference to Minerva. Erectheus, to give equal importance to his patroness, instituted the Eleusinian mysteries.

The archpriestess, who personated the newly imported deity, was entertained by one Celeus, king or viceroy of the district of Eleusis. Upon her arrival, a farce was acted not very suitable to the character of a goddess. The indecencies attending the first appearance of the goddess, or the Egyptian dame who assumed her character, were copied from similar unhallowed modes of behaviour, practised in the solemn processions of her native country. These coarse jokes had an allegorical signification in Egypt; and among the most ancient Greeks the same spirit was diffused by the oriental colonists; but afterwards they abandoned the allegorical style, and lost every idea of their religious, moral, or physical

interpretation; while the shameful rencontre between Ceres and Banbo, or Jambe, was retained in the mysteries. See *Appollodorus* and *Clemens Alexandrinus*. At the time that Ceres arrived in Attica, Bacchus likewise made his appearance in that country. He was entertained by one Icarus; whom, as a reward for his hospitality, he instructed in the art of cultivating the vine, and making wine. Thus both agriculture and the art of managing the vintage were introduced into Athens about the same time. Ceres was a priestess of Isis; Bacchus was a priest of Osiris. The arrival of these two personages from Egypt, with a number of inferior priests in their train, produced a revolution in Athens, with respect to life, manners, and religion. The sacred rites of Isis, or the Eleusinian mysteries, date their institution from this period. When this company arrived at Eleusis they were entertained by the most respectable persons in that district. Their names, according to Clem. Alexand., were Banbo, Dysaulis, Triptolemus, Eumolpus, and Eubulus. From Eumolpus descended a race of priests called Eumolpidæ, who figured at Athens many ages after. Triptolemus was an ox-herd, Eumolpus a shepherd, and Eubulus a swine-herd. These were the first apostles of the Eleusinian mysteries. Erectheus, or Pandion, countenanced the seminary, and built a small temple for its accommodation in Eleusis, a city of Attica, a few miles west of Athens, and capital of one of the twelve districts into which that territory was divided. This was the scene of those renowned mysteries, which for nearly 2000 years were the pride of Athens.

The mysteries were divided into the *greater* and *lesser*. The latter were celebrated at Agræ, a small town on the Ilyssus; the former were celebrated in the month Boedromion; the latter in that of Anthesterion. All the lesser ceremonies, described under the article ELEUSINIA, being duly performed, the candidate was carried into the hall appointed for initiation. There he was taught the first elements of those arcana which were afterwards more fully revealed in the more august mysteries of Eleusis. The pupils at Agræ were called Mystæ, or probationers; those of Eleusis were denominated Epoptæ, importing that they saw as they were seen. The lesser mysteries were divided into several stages, and candidates were admitted to them according to their quality and capacity respectively. Those who were initiated in the lowest were obliged to wait five years before they were admitted to the greater. Those who had partaken of the second kind underwent a noviciate of three years; those who had been admitted to the third, only of two years; and those who had gone through the fourth were admitted to the greater at the end of one year; which was the shortest period of probation a candidate could legally undergo. As to the greater mysteries, originally none but the natives of Attica were admitted to them. In time, however, the pale was extended so far and wide as to comprehend all who spoke the Greek language; but all foreigners were debarred. Hercules, Bacchus, Castor, Pollux, Æsculapius, and Hippocrates were initiated in an extraordinary manner, from a regard to their high character. All barbarians, too, were excluded; yet Anacharsis the Scythian was indulged that privilege, in consequence of his reputation for science. All persons guilty of manslaughter, all magicians, enchanters, all impious and profane persons, were expressly prohibited the benefit of this pagan sacrament. At last, however, the gate became wider, and people of all nations, provided their character was fair, were admitted. The Athenians at last initiated even their infants, that they might be under the protection of the goddess.

On the evening of the 15th day of Boedromion the initiations commenced; for all the most solemn rites of paganism were performed during the night; they were indeed generally works of darkness. On this day there was a solemn cavalcade of Athenian matrons from Athens to Eleusis, in carriages drawn by oxen. In this procession the ladies used to rally one another in pretty loose terms, in imitation of the Isiac procession described by Herodotus. The most remarkable object in this procession was the Mundus Cereris, contained in a small coffer or basket. This was carried by Athenian matrons. In this coffer were lodged the comb of Ceres, her mirror, a serpentine figure, some wheat and barley, the pudenda of the two sexes, &c. The procession ended at the temple, where this sacred charge was deposited with the greatest solemnity. We have no complete description of the temple of Eleusis. That of its ruins, by Dr. Chandler, is inserted under ELEUSIS. Strabo informs us that the mystic sanctuary was as large as a theatre. In the porch of this temple the candidates were crowned with garlands of flowers, which they called hymera, or the desirable. They were dressed in new garments, which they continued to wear till they were quite worn out. They washed their hands in a laver filled with holy water, as a symbol of purity. Before the doors were locked, one of the officers of the temple proclaimed with a loud voice a stern mandate, enjoining all the uninitiated to keep at a distance from the temple, and denouncing the most terrible menaces if any should dare to pry into the holy mysteries. Any person who ventured into the sanctuary, even through ignorance, was put to death without mercy.

The chief minister of these far-famed mysteries was the hierophant. He was styled king, enjoyed that dignity during life, was always an Athenian, and presided in the solemnity. This personage, says Eusebius, represented the Demiurgus, or Creator. 'Now in the mysteries of Eleusis,' says he, 'the hierophant is dressed out in the figure of the demiurgus. The demiurgus,' adds he, 'whom the Egyptians call Cneph, is figured as a man of an azure color, shaded with black, holding in his right hand a sceptre, and in his left a gird e, and having on his head a royal wing or feather wreathed round.' The next minister was the daduchus, or torch-bearer; who, according to Eusebius, was attired like the sun, the visible type of the supreme demiurgus. The third was the person who officiated at the altar. He was habited like the moon. His

office was to implore the favor of the gods for all the initiated. The sacred herald was another principal actor. His province was to recite every thing that was to be communicated to the novices. He probably represented Thoth or Mercury, the interpreter of the gods. There were also five epimeletæ or curators, of whom the king was one, who jointly directed the whole ceremonial; and ten priests to offer the sacrifices.

We return to the mystæ, or candidates for initiation. Eusebius, Clemens Alexandrinus, and Justin, mention a hymn composed by Orpheus, which was sung by the mystagogue upon that occasion. That some sacred hymn was chanted is highly probable; but that it was composed by Orpheus appears problematical. Before the ceremony opened, a book was produced, which contained every thing relating to the teletæ. This was read over to the mystæ; who were ordered to write out copies of it. It was kept at Eleusis in a sacred repository, called petroma, between two large stones.

The initiations began with a representation of the wanderings of Ceres, and her lamentations for her daughter. One of the company having kindled a firebrand at the altar, and sprung to a place in the temple, waving the torch furiously, a second snatched it from him, roaring and waving it in the same frantic manner; then a third, a fourth, &c., in the most rapid succession. This was an imitation of Ceres, who perlustrated the earth with a flaming pine in her hand, which she had lighted at mount Etna. When the pageant of the goddess was supposed to arrive at Eleusis, a solemn pause ensued, and a few trifling questions were put to the mystæ. The mundus Cereris was then displayed before the mystæ, and the mystagogue read a lecture on the allegorical import of these symbols, which was heard with the most solemn silence. Many traditions were then communicated to the mystæ concerning the origin of the universe, &c., as we learn from Clemens Alexandrinus and Cicero. This cosmogony was that of the most ancient Egyptians, and of the orientals in general. It is beautifully exhibited in Plato's Timæus, and by Ovid in his Metamorphoses, lib. 1, fab. 1—3. The next scene consisted of the exploits of the gods, demigods, and heroes, who had been advanced to divine honors. These were displayed as passing before the mystæ in pageants fabricated on purpose. But, though thus 'there were gods many and lords many,' yet, according to Eusebius, the unity of the Supreme Being was maintained and inculcated. This was the original doctrine of the hierophants of Egypt. It was maintained by Thales and all the Ionian school. It was the doctrine of Pythagoras, who probably gleaned it up in Egypt, along with many other dogmas which he claimed as his own.

But however the unity, and some of the most obvious attributes of the Supreme Being, might be inculcated, the tribute of homage was duly paid to the subordinate divinities. The initiated were taught to look to the dii majorum gentium with awe and veneration, as beings endowed with ineffable power, wisdom, purity, goodness, &c. These they were exhorted to adore; to offer sacrifices, prayers, &c. They were instructed to look up to hero-gods and demi-gods, as beings exalted to the high rank of governors of different parts of nature, as the immediate guardians of the human race; in short, as gods near at hand, ready upon all occasions to confer blessings upon the virtuous. As the two chief ends of these initiations were the exercise of heroic virtues in men, and the practice of uniform piety by the candidates for immortal happiness, the hierophants had adopted a plan well accommodated to these purposes. The virtuous conduct and heroic exploits of the demi-gods were magnified by the most pompous eulogiums, and enforced with suitable exhortations. The heroes and demi-gods themselves were displayed in pageants, or vehicles of celestial light. Their honors, offices, and other appendages, were exhibited with all the splendor that the sacerdotal college were able to devise. The sudden glare of mimic light, the melting music stealing upon the air, the artificial thunders reverberated from the roof and walls of the temple, the appearance of fire and ethereal radiance, the vehicles of flames, the effigies of heroes and demons adorned with crowns of laurel, the fragrant odors and aromatic gales which breathed from every quarter, all dexterously counterfeited by sacerdotal mechanism, in the dead of night, amidst a dismal gloom, whence the most bright effulgence instantaneously burst upon the sight, must have filled the imagination of the astonished votaries with pictures at once tremendous and transporting.

But, as all the candidates for initiation might not aspire to the rank of heroes and demi-gods, a more easy and more attainable mode of conduct, to arrive at the place of happiness, required to be opened. Private virtues were inculcated, and these, too, were to meet a proper reward. The conductors of the mysteries urged the doctrine of a future state of rewards and punishments. The immortality of the soul was elucidated and inculcated. This doctrine was likewise imported from Egypt; for Herodotus says (Lib. ii.) 'that the Egyptians were the first people who maintained the immortality of the human soul.' The Egyptian immortality, however, according to him, was only the metempsychosis. This was not the system of the ancient Egyptians, nor indeed of the teletæ. In these a metempsychosis was admitted; but it was carried forward to a very distant period, to wit, to the grand Egyptian period of 36,000 years. As the mystagogues well knew that men are more powerfully affected by objects presented to the eyes, than by the most engaging instructions conveyed by the ear, they made the emblems of Elysium and Tartarus pass in review before the eyes of their novices. Thus the Elysian scenes, so nobly described by the Roman poet, appeared in mimic splendor; while the gloom of Tartarus, the three-headed dog of hell, the furies with tresses of snakes, the tribunals of Minos, Æacus, and Rhadamanthus, &c., were displayed in all their terrific state. Tantalus, Ixion, Sisyphus, the daughters of Danaus, &c., were represented in pageants before their eyes. These exhibitions were accompanied with most horrible

cries and howlings, thunders, lightning, and other objects of terror. The worship of the gods was strictly enjoined. The three laws ascribed to Triptolemus were strictly inculcated. 1. To honor their parents; 2. To honor the gods with the first fruit of the earth; 3. Not to treat brutes with cruelty. Cicero makes the civilisation of mankind one of the most beneficial effects of the Eleusinian institutions.

The initiated then bound themselves by dreadful oaths to observe and practise every precept tendered to them in the course of the teletæ; and never to divulge one article of all that had been heard or seen by them. In this they were so exceedingly jealous, that Æschylus the tragedian was in danger of capital punishment, for having only alluded to one of the Eleusinian arcana in a tragedy: and one of the articles of indictment against Diagoras the Melian was, his having spoken disrespectfully of the mysteries, and dissuaded people from partaking of them. To impress these maxims the more deeply upon the minds of the novices, 'towards the end of the celebration,' says Stobæus, 'the whole scene becomes terrible; all is trembling, shuddering, and astonishment. Many horrible spectres are seen, and strange cries and howlings uttered. Light succeeds darkness; and again the blackest darkness the most glaring light. Now appear open plains, flowery meads, and waving groves; where are seen dances and choruses; and various holy phantasies enchant the sight. Melodious notes are heard from afar, with all the sublime symphony of the sacred hymns. The pupil, now completely perfect, is initiated, becomes free, released, and walks about with a crown on his head, and is admitted to bear a part in the sacred rites.' Pletho, in the oracles of Zoroastres, informs us, 'that frightful and shocking apparitions, in a variety of forms, used to be displayed to the mystæ in the course of their initiation:' and 'that thunder, lightning, and fire, and every thing terrible which might be held symbolical of the divine presence, were introduced.' Claudian, in his poem De Raptâ Proserpinâ, gives an elegant, though brief, description of these scenes. The sight of those appearances was called Autopsia, or actual seeing: hence those rites were called epoptica. The epoptæ were actually initiated, and were admitted into the sanctum sanctorum, and bore a part in the ceremonial; whereas the mystæ were obliged to take their station in the porch of the temple. The candidates for initiation bathed themselves in holy water, and put on new clothes of linen, which they continued to wear till they were quite torn, and then they were consecrated to Ceres and Proserpine. From the ceremony of bathing they were called hydrani; and this was a kind of baptismal absolution.

The epoptæ having sustained all those fiery trials, heard and seen every thing requisite, taken upon them the vows and engagements of Ceres and Proserpine, were now declared perfect men. They were crowned with laurel, and dismissed with two barbarous words, Κονξ ομπαξ, konx ompax, of which perhaps the hierophants themselves did not comprehend the import. They had been introduced by the first Egyptian missionaries, and retained after their signification was lost. This was a common practice among the Greeks. In the administration of their religious ceremonies, they retained many names of persons, places, things, customs, &c., which had been introduced by the Phœnicians and Egyptians, from whom they borrowed their system of idolatry. Those terms constituted the language of the gods, so often mentioned by Homer. The above words appear to be Syriac, and to signify, be vigilant, be innocent. Numerous and important were the advantages supposed to redound to the initiated, from their being admitted to partake of the mysteries, both in this life and that which is to come. Euripides, in his Bacchæ, act. I., &c., introduces the chorus extolling the happiness of those who had been acquainted with God, by participating in the holy mysteries, and whose minds had been enlightened by the mystical rites. The happy influences of the teletæ were supposed to administer consolation to the epoptæ in the hour of dissolution. Isocrates confirms this; and Aristides (de Myst. Eleus.) tells us, 'that the initiated were not only often rescued from many hardships in their life time, but at death entertained hopes that they should be raised to a more happy condition.' After death, they were, in the Elysian fields, to enjoy superior degrees of felicity, to bask in eternal sun-shine, to quaff nectar, and feast upon ambrosia, &c.

The priests made their disciples believe that the souls of the uninitiated, when they arrived in the infernal regions, should roll in mire and dirt, and with very great difficulty arrive at their destined mansion. Hence Plato introduces Socrates observing, 'that the sages who instituted the teletæ had positively affirmed, that whatever soul should arrive in the infernal mansions unhouselled and unannealed, should lie there immersed in mire and filth.' And as to a future state, says Aristides, 'the initiated shall not roll in mire and grope in darkness; a fate which awaits the unholy and uninitiated.' When the Athenians advised Diogenes to get himself initiated, and enforced their arguments with the above considerations, 'It will be pretty enough,' replied the philosopher,' 'to see Agesilaus and Epaminondas wallowing in the mire, while the most contemptible rascals who have been initiated are strutting in the islands of bliss.' When Antisthenes was to be initiated in the Orphic mysteries, and the priest was boasting of the many astonishing benefits which the initiated should enjoy in a future state, 'Why,' says Antisthenes, it is strange your reverence don't e'en hang yourself, to come at them the sooner.' After the Macedonian conquests, the hierophants abated much of their original strictness. In the age of Cicero, Eleusis was a temple to which all nations resorted. Almost all the great men of Rome were initiated. The hierophants, however, refused to admit Nero on account of the profligacy of his character. Few others were refused that honor.

This institution gradually degenerated, but how much, and in what points, it is difficult to investigate. The fathers of the church are not always to be trusted when they arraign the insti-

tutions of Paganism. Melanthius, Menander, Sotades, &c., wrote purposely on the subject, but their works are long since lost. Among modern authors Meursius and Warburton have labored most successfully in this field. The former, in his Liber Singularis, has collected every thing that can be gleaned from antiquity relating to these institutions, without, however, pointing out their original, or elucidating the end and import of their establishment. The latter has drawn them into the vortex of a system which has in many instances led him to ascribe to them a higher merit than they deserve.

These mysteries continued in high reputation to the age of St. Jerome. The emperor Valentinian intended to have suppressed them; but Zozimus says, he was diverted from his design by the proconsul of Greece. At length Theodosius I. prohibited the celebration of these and all the other sacra of Paganism. They had maintained their ground nearly 2000 years; during which space the celebration of them never had been interrupted but once. When Alexander the Great massacred the Thebans, and razed their city, the Athenians were so much affected with this melancholy event, that they neglected the celebration of that festival.

There were many other mysterious institutions among the ancient Pagans, but the above were the most celebrated. The Samothracian mysteries, instituted in honor of the Cabiri, were likewise of considerable celebrity, and were supposed to confer the same blessings with the Eleusinian, but were not of equal celebrity. The Cabiri were Phœnician and likewise Egyptian deities. Bochart has explained their origin, number, names, and some parts of their worship. The Orphic mysteries were likewise famous among the Thracians. Orpheus learned them in Egypt, and they were nearly the same with the Bacchanalia of the Greeks. There were likewise the mysteries of Jupiter Idæus in great request among the Cretans, and those of Cybele celebrated in Phrygia. To enumerate and detail all these would require volumes.

MYSTERY is primarily used in speaking of certain truths revealed in Scripture, into the full understanding whereof human reason cannot penetrate. Such are the doctrines of the Trinity, the Incarnation, &c. We have an epitome of the mysteries of faith, or the mysteries of Christianity, in the symbols or creeds compiled by the apostles, the council of Nice, and St. Athanasius. See CREED.

MYSTERY, in English antiquity, is a term formerly applied to our dramatic exhibitions. It is well known, says Mr. Percy, in his Reliques of Ancient English Poetry, that dramatic poetry in this and most other nations of Europe owes its origin, or at least its revival, to those religious shews which in the dark ages were usually exhibited on the more solemn festivals. At those times they were wont to represent, in the churches, the lives and miracles of the saints, or some of the more important histories of Scripture. And as the most mysterious subjects were frequently chosen, such as the incarnation, passion, and resurrection of Christ, &c., these exhibitions acquired the name of mysteries. At first they were probably a kind of dumb shows, intermingled with a few short speeches: at length they grew into a regular series of connected dialogues, formally divided into acts and scenes. Specimens of these, in their most improved state, may be seen in Dodsley's Old Plays, and in Osborne's Harleian Miscellany. As the old mysteries frequently required the representation of some allegorical personage, such as death, sin, charity, faith, and the like, by degrees the rude poets of those unlettered ages, towards the fifteenth century, began to form complete dramatic pieces, consisting entirely of such personifications. These they entitled moral plays, or moralities. The mysteries were very inartificial, representing the scripture stories singly, according to the letter. But the moralities are not devoid of invention; they exhibit the outlines of the dramatic art, containing something of a fable or plot, and even attempting to delineate characters and manners.

MYSTICAL, *n. s.* MYS'TICALLY, *adv.* MYS'TICALNESS, *n. s.* } Lat. *mysticus.* Obscure; emblematical; involving some secret or occult meaning.

Let God himself that made me, let not man that knows not himself, be my instructor, concerning the *mystical* way to heaven. *Hooker.*

These two in thy sacred bosom hold,
Till *mystically* joined but one they be. *Donne.*

It is Christ's body in the sacrament and out of it; but in the sacrament not the natural truth, but the spiritual and *mystical.*
Taylor's Worthy Communicant.

Ye five other wandering fires! that move
In *mystick* dance not without song, resound
His praise, who out of darkness called up light.
Milton.

It is surely another spiritual Zion, or *mystical* rock, which is prophesied of. *Barrow.*

Lest new fears disturb the happy state,
Know, I have searched the *mystick* rolls of fate.
Dryden.

It is plain from the Apocalypse, that *mystical* Babylon is to be consumed by fire. *Burnet.*

Thence *mystic* knots mak great abuse,
On young guidman, fond, keen, an' crouse;
When the best wark-lume i' the house,
By cantrip wit,
Is instant made no worth a louse,
Just at the bit. *Burns.*

The purple midnight veiled that *mystic* meeting
With her most starry canopy, and seating
Thyself by thine adorer, what befell? *Byron.*

MYSTICAL implies something mysterious or allegorical. Some commentators on the sacred writings, besides a literal find also a mystical meaning. The sense of Scripture, say they, is either that immediately signified by the words and expressions in the common use of language; or it is mediate, sublime, typical, and mystical. The literal sense they again divide into proper literal, which is contained in the words taken simply and properly; and metaphorical literal, where the words are to be taken in a figurative and metaphorical sense. And sometimes they take the same word in Scripture in all the four

senses; the word Jerusalem literally signifies the capital of Judea; allegorically, the church militant; tropologically, a believer; and anagogically heaven.

MYSTICI, or MYSTICS, a kind of religious sect, distinguished by their professing pure, sublime, and perfect devotion, with an entire disinterested love of God, free from all selfish considerations. The mystics, to excuse their fanatic ecstacies and amorous extravagancies, allege that passage of St. Paul, 'The spirit maketh intercession for us with groanings which cannot be uttered.' Rom. viii. 26. Passive contemplation is that state of perfection to which the mystics all aspire. This mystic science sprung up towards the close of the third century. The authors are not known; but the principle proceeded from the known doctrine of the Platonic school, which was also adopted by Origen and his disciples, that the divine nature was diffused through all human souls, or that the faculty of reason, from which proceed the health and vigor of the mind, was an emanation from God into the soul, and comprehended in it the principles and elements of all truth, human and divine. The mystics denied that men could by study excite this celestial flame in their breasts; and therefore they disapproved highly of the attempts of those, who, by definitions, abstract theorems, and profound speculations, endeavoured to form distinct notions of truth. They maintained that silence, tranquillity, repose, and solitude, accompanied with such acts as tend to extenuate and exhaust the body, were the means by which the hidden and internal word was excited to produce its latent virtues, and to instruct them in the knowledge of divine things. Those, say they, who behold with a noble contempt all human affairs, who turn away their eyes from terrestrial vanities, and shut all the avenues of the outward senses against the contagious influences of a material world, must necessarily return to God, when the spirit is thus disengaged from the impediments that prevented that happy union. And in this blessed frame they not only enjoy inexpressible raptures from their communion with the Supreme Being, but also are invested with the inestimable privilege of contemplating truth undisguised and uncorrupted in its native purity, while others behold it in a vitiated and delusive form. The number of the mystics increased in the fourth century, under the influence of the Grecian fanatic, who gave himself out for Dionysius the Areopagite, and by pretending to higher degrees of perfection than other Christians, and practising greater austerity, their cause gained ground, especially in the eastern provinces, in the fifth century. A copy of the pretended works of Dionysius was sent by Balbus to Louis the Meek in 824, which kindled the flame of mysticism in the western provinces, and filled the Latins with the most enthusiastic admiration of this new religion. In the twelfth century, the mystics, by searching for mysteries and hidden meanings in the plainest expressions, forced the word of God into a conformity with their visionary doctrines, their enthusiastic feelings, and the system of discipline which they had drawn from the excursions of their irregular fancies. In the thirteenth century they were the most formidable antagonists of the schoolmen; and towards the end of the fourteenth many of them resided and propagated their tenets in almost every part of Europe. They had in the fifteenth century many persons of distinguished merit in their number; and in the sixteenth, previous to the Reformation, if any sparks of real piety subsisted under the prevailing superstition, they were only to be found among the mystics. The principles of this sect were adopted by the QUIETISTS in the seventeenth century, and, under different modifications, by the QUAKERS and METHODISTS. See these articles.

MYSTRUM, a liquid measure among the ancients, containing a fourth part of the Cyathus, and weighing two drachms and a half of oil, or two drachms two scruples of water or wine.

MYTENS (Daniel), a native of the Hague, was an admired painter in the reigns of king James I. and Charles I. He had certainly, Mr. Walpole says, studied the works of Rubens before his coming over. His landscapes in the back grounds of his portraits are evidently in the style of that school; and some of his works have been taken for Vandyck's. At Hampton Court are several whole lengths of princes and princesses of the house of Brunswick, and the portrait of Charles Howard, earl of Nottingham; at Kensington is Mytens's own head. At Knowle, at Drayton, and at St. James's, are various portraits by Mytens. The picture of Mary, queen of Scots, at St. James's, is a copy by Mytens. He remained in great reputation till the arrival of Vandyck, who being appointed the king's principal painter, Mytens asked the king's leave to retire to his own country; but the king, learning the cause of his dissatisfaction, treated him with much kindness, and told him that he could find sufficient employment both for him and Vandyck. Mytens consented to stay, and even grew intimate with his rival, who painted his head; but we find none of his works here after 1630. Yet he lived many years afterwards. Houbraken quotes a register at the Hague, dated 1656, which says Mytens painted part of the ceiling of the town-hall there; the subject is, Truth writing History on the back of Fame.

MYTENS (Martin), a portrait and historical painter, was born at Stockholm in 1695. When he had practised for some years he went to Holland, and thence to London, where he practised miniature and enamel painting, and by his performances in that way gained a sufficient maintenance. In 1717 he visited Paris, where he painted portraits of the duke of Orleans, Louis XV., and the czar Peter. In 1721 he arrived at Vienna, and having painted the portraits of the emperor, the empress, and the most illustrious persons at that court, he proceeded to Italy in 1723. Having visited Venice, and spent two years at Rome, he went to Florence, where the grand duke Gascon I., having engaged him for some time in his service, made him considerable presents, and placed his portrait among the heads of illustrious artists in his gallery. The king and queen of Sweden presented him with a chain of gold and a medal each, after his return from Italy. At last he settled at Vienna, where he obtained large appointments from the court. He died in 1755.

MYTHOLOGY.

MYTHOL'OGY, *n. s.* MYTHOLOG'ICAL, *adj.* MYTHOL'OGIST, *n. s.* MYTHOL'OGIZE, *v. a.* Fr. *mythologie*; Gr. μυθος, a fable, and λογος. A system of fabulous divinity or history: used particularly of the various false religions of the ancient world: mythological is relating to a system or scheme of fabulous religion or history: a mythologist, he who relates or expounds such a system: to mythologize, to relate or expound it.

Even in the very first world were giants, as Moses tells us, which, as our *mythologists* add, did 'bid battle to heaven.' *Bp. Hall.*

The grammarians and *mythologists* seem to be altogether unacquainted with his writings. *Creech.*

The original of the conceit was probably hieroglyphical, which after became *mythological*, and by tradition stole into a total verity, which was but partially true in its covert sense and morality.
Browne's Vulgar Errours.

It was a celebrated problem among the ancient *mythologists*, What was the strongest thing, what the wisest, and what the greatest? *Norris.*

The modesty of *mythology* deserves to be commended; the scenes there are laid at a distance: it is once upon a time, in the days of yore, and in the land of Utopia. *Bentley.*

MYTHOLOGY, in its original import, signifies any kind of fabulous doctrine; in its more appropriated sense, it means those fabulous details concerning the objects of worship, which were invented and propagated by men who lived in the early ages of the world, and by them transmitted to succeeding generations, either by written records or by oral tradition. The theology and mythology of the ancients are therefore almost the same.

With respect to fable, it is a creature of the human imagination, and derives its birth from that love of novelty, which is congenial to the soul of man. The appearances of nature which every day occur, objects, actions, and events, which succeed each other, seem too familiar and uninteresting to gratify curiosity, or to excite admiration. But when the most common phenomena in nature or life are new modelled by a warm imagination; when they are diversified, compounded, embellished, or arranged into forms which seldom or never occur in the ordinary course of things; novelty generates admiration, and thus proves a source of fiction and fable.

Many circumstances contributed to extend and establish the empire of fable. The legislator laid hold on this bias of human nature, and employed fable and fiction as the most effectual means to civilise a rude world. Philosophers, theologists, poets, musicians, made use of this vehicle to convey their instructions to the savage tribes. They knew that truth, simple and unadorned, is not possessed of charms powerful enough to captivate the heart of man in his degenerate state. This consideration naturally led them to employ fiction and allegory.

Though almost every nation on the globe has fabricated its own system of mythology, the orientals have distinguished themselves by the boldness, the inconsistency, and the extravagance of their mythology. The genial warmth of those happy climes, the fertility of the soil, which afforded every necessary, and often every luxury of life, without great laborious exertions; the face of nature perpetually blooming around them, the skies smiling with uninterrupted serenity; all contributed to inspire them with a glow of fancy and vigor of imagination rarely met with in less happy regions. Hence every object was swelled beyond its natural dimensions. Nothing was great or little in moderation, but every sentiment was heightened with incredible hyperbole. The magnificent, the sublime, the vast, the enormous, the marvellous, first sprung up, and were brought to maturity in those native regions of fable; and were thence transplanted into the western countries.

As the allegorical taste of the eastern nations had sprung from their propensity to fable, so allegory in process of time contributed to multiply fables and fiction almost infinitely. The latent import of the allegorical doctrines being in a few ages lost, what was originally a moral or theological tenet, assumed the air of a personal adventure. The propensity towards personification, almost universal among the orientals, was another fruitful source of fable and allegory. That the people of the east were strongly inclined to personify inanimate objects and abstract ideas, will be readily granted, when it is considered, that in the formation of language they have generally annexed sexes of names. Hence the distinction of grammatical genders, which originated in the eastern parts of the world.

The general use of hieroglyphics in the east also contributed largely to extend the empire of mythology. As the import of the figures employed was arbitrary, mistakes must have been often committed in ascertaining what they were intended to represent. When the development of these arbitrary signs was attended with uncommon difficulty, the expounders were obliged to have recourse to conjecture. The wise men of the east delighted in obscure enigmatical sentences. Their dark sayings often occur in the most ancient records. The sages of antiquity used to vie with each other for the prize of superior wisdom, by propounding riddles and mysterious questions, as subjects of investigation. As the import of those enigmatical propositions was often lost, nothing remained but fancy and conjecture, which always verged towards fable. This was another source of mythology.

The pagan priests, especially in Egypt, were probably the first who reduced mythology to a system. The sacerdotal tribe, among that people, were the grand depositaries of learning and religion. They monopolised all the arts and sciences; and precluded the laity from all intellectual improvement. This was done to keep the laity in subjection, and to enhance their own importance. The language of Ethiopia became their

sacred dialect, and hieroglyphics their sacred character. Egypt, of course, became a kind of fairy land, where all was jugglery, magic, and enchantment. The initiated alone were admitted to the knowledge of the occult mystical exhibitions, which constituted the essence of their religion. The Egyptians, and indeed all the ancients, deemed the mysteries of religion too sacred to be communicated to the herd of mankind, naked and unreserved. Egypt was the land of graven images; allegory and mythology were the veils which concealed religion from the vulgar.

In the earliest stage of society we cannot suppose fable to have existed among men. Fables are always tales of other times; but at this period other times did not reach far enough backward to afford those fruits of the imagination time to arrive at maturity. Fable requires a considerable space of time to acquire credibility, and to rise into reputation. The Chinese and Egyptians, the two most ancient nations whose annals have reached our times, were unacquainted with fabulous details in the most early periods of their monarchies. It has been shown almost to a demonstration, by a variety of learned men, that both these people, during some centuries after the general deluge, retained and practised the primitive Noachic religion, in which fable could find no place; all was genuine unsophisticated truth.

As soon as the authentic tradition concerning the creation was either lost or adulterated, fiction began to prevail. The Egyptian Thoth, Thyoth, or Mercurius Trismegistus, and Mochus the Phœnician, undertook to account for the formation and arrangement of the universe, upon principles purely mechanical. Here fable began to usurp the place of historical truth. Accordingly all the historians of antiquity, who have given a general detail of the affairs of the world, have ushered in their narration with a fabulous cosmogony. Here imagination ranged unconfined over the boundless extent of the primary chaos. To be convinced of this, we need only look into Sanchoniathon's Cosmogony, Euseb. Præp. Evang l. 1, and Diodorus Sic. l. 1. From this it follows that the first fables owed their birth to the erroneous opinions of the formation of the universe.

The Chinese, according to their own fabulous annals, which we have already examined in our article CHINA, were the first of the nations. Their records reach upwards many myriads of years before the creation. Fohi is said to have laid the foundation of the empire about 4000 years ago. This emperor, according to the Chinese, was conceived in a miraculous manner. He was half a man and half a serpent. His intellectual powers were truly hyperbolical. In one day he discovered fifty different species of poisonous herbs. He taught his countrymen the art of agriculture. He invented boats and nets for fishing, the art of fabricating porcelain, the management of silk-worms, the manufacturing of silk, &c. He composed that incomparable body of laws which are still the wonder of the Chinese. This whole detail is fabulous; but the Chinese, in ascribing the invention of all the useful arts to Fohi, resemble the other nations of antiquity. The Indians ascribe every invention to Budha, Vishnou, or Foe: the Persians to Zoroaster; the Chaldeans to Oannes; the Egyptians to Thoth; the Phœnicians to Melicerta; the Greeks to the family of the Titans; and the Scandinavians to Odin, &c.

About A. A. C. 551 appeared the famous Chinese philosopher Con-fu-tse, or Confucius. Concerning the birth of this prince of philosophers, the Chinese have the following legend:—His mother, walking in a solitary place, was impregnated by the vivifying influence of the heavens. The babe, thus produced, spake and reasoned as soon as he was born. Confucius, however, wrought no miracles, performed no romantic exploits, but lived an austere ascetic life, inculcated morality, and died, remarkable only for superior wisdom, religious, moral, and political.

About A. D. 601 flourished the sectary Lao-Kiun. His mother carried him thirty years in her womb, and was at last delivered of him under a plum-tree. This philosopher was the Epicurus of the Chinese. His disciples, who were denominated Tao-tse, i. e. heavenly doctors, were the first who corrupted the religion of the Chinese. Their doctrine was embraced by many of the emperors. One of these, called Youti, had lost a favorite mistress, whom he loved with the most extravagant passion. By the magical skill of one of these doctors he obtained an interview with his deceased mistress; a circumstance which rivetted the whole order in the affection of the deluded prince. This fable is a counterpart of that of Orpheus and Eurydice.

The worship of the idol Foe was transplanted from India into China about A. D. 65. The doctrine and worship of Foe made a most rapid progress all over China, Japan, Siam, &c. The priests of Foe are called among the Siamese talapoins; by the Tartars lamas; by the Chinese ho-chang; and by the people of Japan bonzes. An incredible number of fables were invented and propagated by the disciples of Foe, concerning their master. If the earlier ages of the Chinese history are barren of mythological incidents, the later periods, after the introduction of the worship of Foe, furnish an inexhaustible store of miracles, monsters, fables, intrigues, exploits, and adventures, of the most villanous complexion. Indeed, most of them are so absurd, ridiculous, impious, and profane, that our readers will easily dispense with a detail, from which they could reap neither entertainment nor instruction.

The Hindoos, like the other nations of the east, for a long time retained the worship of the true God. At length, however, idolatry broke in, and, like an impetuous torrent, overwhelmed the country. The genuine history of the origin of the universe was either utterly lost, or disguised under a variety of fictions. We are told that Bramha, the supreme divinity of the Hindoos, created four persons, whom he appointed to rule over all the inferior creatures. Afterwards he joined his efficient power with Bishon and Rulder; and by their united exertons they produced ten

men, whose general appellation is Munies, that is, the inspired. According to another mythology, Brahma produced four other persons, one from his breast, one from his back, one from his lip, and one from his heart. Another tradition respecting the origin of the four great tribes is mentioned under the article GENTOOS; and accounts for the four castes or septs into which the Hindoo nation has from time immemorial been divided.

The Hindoos have likewise some mythological opinions which seem to relate to the general deluge. They tell us, that desiring the preservation of herds and of brahmans, of genii and of virtuous men, of vedas of law, and of precious things, the Lord of the universe assumes many bodily shapes; but though he pervades, like the air, a variety of beings, yet he is himself unvaried, since he has no quality in him subject to change. At the close of the last calpa there was a general destruction, occasioned by the sleep of Brahma, whence his creatures in different worlds were drowned in a vast ocean. Brahma being inclined to slumber after so many ages, the strong demon Hayagri-va stole the vedas which flowed from his lips. When Heri, the preserver of the universe, discovered this deed of the prince of Dainavas, he took the shape of a minute fish called Sap-hari. After various transformations, and an enormous increase of size in each of them, the Lord of the universe loving the righteous man called Mana, or Stratgavrata, who had still adhered to him under all these various shapes; and, 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.' The remaining part of the mythology so nearly resembles the Mosaic history of Noah and the general deluge, that it appears to have been borrowed from it. To dry up the waters of the deluge, the power of the Deity descends in the form of a boar, the symbol of strength, to draw up and support on his tusks the whole earth, which had been sunk beneath the ocean. The same power is represented as a tortoise sustaining the globe, which had been convulsed by the violent assaults of demons, while the gods churned the sea with the mountain Mandar, and forced it to disgorge the sacred things and animals, together with the water of life which it had swallowed. All these stories relate to the same event, shadowed by a moral, a metaphysical, and an astronomical allegory; and all seem connected with the hieroglyphical sculptures of the ancient Egyptians.

The Hindoos divide the duration of the world into four yugs, or jogues, each consisting of a prodigious number of years. See GENTOOS and JOGUES. According to the mythology of the Hindoos, the system of the world is subject to various dissolutions and resuscitations. At the conclusion of the Collee Jogue, say they, a grand revolution will take place, when the solar system will be consumed by fire, and all the elements reduced to their original constituent atoms. Upon the back of these revolutions Brahma is sometimes represented as a new-born infant, with his toe in his mouth, floating on a camala, or water-flower, sometimes only on a leaf of that plant, on the surface of the vast abyss. At other times he is figured as coming forth of a winding-shell; and again as blowing up the mundane foam with a pipe at his mouth.

The vulgar religion of the ancient Hindoos opens a large field of mythological adventures. The Fo or Foe of the Chinese was imported from India. His followers relate, that he was born in a kingdom of India near the line, and that his father was of that country. His mother brought him forth by the left side, and expired soon after her delivery. At the time of her conception, she dreamed that she had swallowed a white elephant, a circumstance which has given birth to the veneration which the monarchs of India have always shown for a white elephant. As soon as he was born he stood erect without assistance. He walked abroad at seven, and pointing with one hand to the heavens, and with the other to the earth, he cried out, 'In the heavens, and on the earth, there is no one but I who deserves to be honored.' At the age of thirty he felt himself filled with the divinity; and now he was metamorphosed into Fo or Pagod. He now began to propagate his doctrine, and prove his divine mission by miracles. The number of his disciples was immense; and they soon spread his dogmas over all India, and even to the extremities of Asia.

One of the principal doctrines which Fo and his disciples propagated was the metempsychosis or transmigration of souls; which has given rise to the multitude of idols reverenced in every country where the worship of Fo is established. Quadrupeds, birds, reptiles, and the vilest animals, had temples erected for them; because, say they, the soul of the god, in his numerous transmigrations, may have at one time or other inhabited their bodies. Both transmigration and the worship of animals seem, however, to have been imported from Egypt into India. The former was early established among the Egyptians. It was, indeed, the only idea they had of the soul's immortality. The worship of animals seems to have been still more ancient. That colonies of Egyptians did actually penetrate into India and settle there, many centuries before the nativity, is an undoubted fact. From the hieroglyphical representations of the Egyptian deities seem to have originated those monstrous idols, which from time immemorial have been worshipped in India, China, Japan, Siam, and the remotest parts of Asiatic Tartary. See POLYTHEISM.

Foe is often called Budha, Budda, and Vishnou. Vast numbers of fables were propagated by his disciples concerning him after his death. They pretended that he was still alive; that he had been already born 8000 times, and that he had successively appeared under the figure of an ape, a lion, a dragon, an elephant, a boar, &c. These were called the incarnations of Vishnou. At length he was confounded with the supreme God; and all the titles, attributes, operations, perfections, and ensigns of the Most High

were ascribed to him. Sometimes he is called Amida, represented with the head of a dog, and worshipped as the guardian of mankind. He sometimes appears as a princely personage, issuing from the mouth of a fish. At other times he has a lunette on his head, in which are seen cities, mountains, towers, trees, and all that the world contains. These transformations were evidently derived from allegorical or hieroglyphical emblems, and form an exact counterpart to the symbolical worship of the Egyptians. The enormous mass of mythological traditions which have deluged the vast continent of India would fill many volumes. The preceding articles afford a specimen, by which our readers may judge of the rest. If they wish to gratify their curiosity at greater length they may consult Thevenot's and Hamilton's Travels, Anquetil's Zendavesta, Halhed's Introduction to his translation of the Code of Gentoo Laws, Col. Dow's History of Hindostan, and more particularly Asiatic Researches.

The mythology of the Persians is, if possible, still more extravagant than that of the Hindoos. It supposes the world to have been repeatedly destroyed, and repeopled by creatures of different formation, who were successively annihilated or banished for their disobedience to the Supreme Being. The monstrous griffin Sinergh tells the hero Caherman that she had already lived to see the earth seven times filled with creatures, and seven times a perfect void; that before the creation of Adam this globe was inhabited by two races of beings, called Peri and Dives, whose characters formed a perfect contrast. The Peri are described as beautiful and benevolent; the Dives as deformed, malevolent, and mischievous, differing from infernal demons only in this, that they are not yet confined to hell. They are ever ranging over the world to scatter discord and misery among men. The Peri resemble the fairies of Europe; and the Dives the giants and magicians of the middle ages. The Peri and Dives wage incessant wars; and, when the Dives make any of the Peri prisoners, they shut them up in iron cages, and hang them on the highest trees, to expose then to the fury of every chilling blast. When the Peri are in danger of being overpowered by their foes they solicit the assistance of some mortal hero; which produces a series of mythological adventures, highly ornamental to the strains of the Persian bards, and furnishing an inexhaustible fund of the most diversified machinery.

One of the most celebrated adventures in the mythology of Persia is Tahmuras, one of their most ancient monarchs. This prince performs a variety of exploits while he endeavours to recover the fairy Merjan. He attacks the Dive Demrush in his own cave; where, having vanquished the demon, he finds vast piles of hoarded wealth, which he carries off with the fair captive. The battles, labors, and adventures of Rostan, another Persian worthy, are celebrated by the Persian bards with the same extravagance of hyperbole with which the labors of Hercules have been sung by the poets of Greece and Rome. The adventures of the Persian heroes breathe all the wildness of achievement recorded of the knights of Gothic romance. The enchantments, transformations, &c., exhibited in both, are characteristic symptoms of one common original. Perhaps the tales of the wars of the Peri and Dives originated from a vague tradition concerning good and bad angels; and probably the fable of the wars between the gods and giants, so famous in the mythology of Greece and Rome, was imported into the former country from the same quarter. For a more particular account of the Persian mythology our readers may consult Dr. Hyde De Relig. vet. Pers. Medor. &c., Dr. Herbelot's Bibl. Orient. &c., &c.

The mythology of the Chaldeans commences at a period myriads of years prior to the era of the Mosaic creation. Their cosmogony, exhibited by Berosus, priest of Belus, deeply versed in the antiquities of his country, is a most extravagant piece of mythology. It has been copied by Eusebius (Chron. l. i. p. 5), as well as by Syncellus, from Alexander Polyhistor. According to this historian there were at Babylon written records, preserved with the greatest care, comprehending a period of fifteen myriads of years. Those writings likewise contained a history of the heavens, earth, and sea, and of the origin of mankind. 'In the beginning,' says Berosus, copying from Oannes, 'there was nothing but darkness and an abyss of water, wherein resided most hideous beings produced from a twofold principle. Men appeared with two wings; some with two and some with four faces. They had one body but two heads; the one of a man, the other of a woman. Other human figures were furnished with the legs and horns of goats. Some had the feet of horses behind, but before were fashioned like men, resembling hippocentaurs.' The remaining part of this mythology is much of the same complexion; indeed so extravagant that we suppose our readers will dispense with the sequel. 'Of all these,' says the author, 'were preserved delineations in the temple of Belus at Babylon. The person who was supposed to preside over them was called Omorea. This word, in the Chaldean language, is Thalath, which the Greeks call θαλασσα, but it properly imports the moon. Matters being in this situation, their god, says Eusebius, came and cut the woman asunder; and out of one half of her he formed the earth, and out of the other the heavens; and he destroyed the monsters of the abyss.' This whole mythology is an allegorical history copied from hieroglyphical representations, the real purport of which could not be decyphered by the author. Such, in general, were the consequences of the hieroglyphical style of writing.

Oannes, the great civiliser and legislator of the Chaldeans, according to Apollodorus, who copied from Berosus, was an amphibious animal of a heterogeneous appearance. He was endowed with reason, and a very uncommon acuteness of parts. His body resembled a fish. Under the head of a fish he had also another head, and feet below similar to those of a man, subjoined to the tail of the fish. His voice and language were articulate, and perfectly intelligible, and there was a figure of him extant in the days of Berosus. He made his appearance in the Red Sea

where it borders upon Babylonia. This monstrous being conversed with men by day; but at night he plunged into the sea, and remained in the water till next morning. He instructed the Babylonians in the use of letters, and the knowledge of all the arts and sciences. He taught them to build houses, temples, and other edifices. He gave them laws and religion, and taught them mathematics, geometry, astronomy, &c. Helladius is of opinion that this strange personage was represented under the figure of a fish because he was clothed with the skin of a seal. The idea of the monster compounded of the man and the fish has originated from some hieroglyphic of that form; or, perhaps, from Oannes having invented fishing or navigation. Mr. Bryant thinks that Oannes was actually Noah; who settled in Shinar or Chaldea after the deluge, and who, in consequence of his connexion with that event, might be properly represented under the emblem of the man of the sea. See DELUGE.

The nativity of Venus, the goddess of beauty and love, is another piece of mythology famous among the Babylonians and Assyrians. An egg, say they, of a prodigious size, dropt from heaven into the Euphrates. Some doves settled upon this egg after the fishes had rolled it to the bank. In a short time this egg produced Venus, who was afterwards called Dea Syria, the Syrian goddess. From this tradition, says Hyginus, pigeons and fishes became sacred to this goddess among the Syrians, who always abstained from eating them. Of this imaginary being we have a very exact and entertaining history in the treatise De Deâ Syriâ, ascribed to Lucian. In this mythological tradition there seems an allusion to the celebrated Mundane egg; and a connexion between the sea and the moon. This same deity was the Atergatis of Ascalon, described by Diodorus the Sicilian; the one half of her body a woman, and the other a fish. See ATERGATIS. This was a hieroglyphic figure of the moon, importing the influence of that planet upon the sea and the sex. The oriental name of this deity evidently points to the moon; for it is compounded of two Hebrew words, viz. Adar, magnificent, and Gad, a troop; which import the queen of the host of heaven.

The fable of Semiramis is nearly connected with the preceding. Diodorus Siculus has preserved the mythological history of this deity, which he and all the writers of antiquity have confounded with the Babylonian princess of that name. That historian informs us that Semiramis, in the Syrian dialect, signifies a wild pigeon; but we apprehend that this term was a name of the moon, as it is compounded of two words of an import applicable to that planet, viz. Sem, a sign, and ramah, high. It was a general practice among the orientals to denominate their sacred animals from that deity to which they were consecrated. Hence the moon being called Semiramis, and the pigeon being sacred to her divinity, the latter was called by the name of the former. We refer our readers for farther information on this subject to Diod. Sic. l. ii.; Hyginus Poet. Astron. lib. 197; Pharmutus de Nat. Deor. Ovid. Metam. l. iv.; Athen. in Apol. Tzetzes Chil ix. cap. 275; Seld. de Diis Syr. ii. p. 183.

We shall now proceed to the mythology of the Arabians; but the greatest part of it is buried in the abyss of ages. The Arabs have always been enthusiastically addicted to poetry, of which fable is the essence. In the Koran we meet with frequent allusions to traditionary fables. These have been transmitted from generation to generation by the bards and rhapsodists for the entertainment of the people. In Arabia, from the earliest ages, it has always been one of their favorite amusements, to assemble in the serene evenings round their tents, or on the platforms upon their houses, to amuse themselves with traditionary narrations of the actions of their remote ancestors. Oriental imagery embellished their romantic details. The glow of fancy, the love of the marvellous, the propensity towards the hyperbolical, which constitute the essence of oriental description, must ever have drawn the relation aside into the regions of fiction. The religion of Mahomet beat down the original fabric of idolatry and mythology. The Arabian fables, current in modern times, are borrowed or imitated from Persian compositions; Persia being still the grand nursery of romance in the east.

In Egypt we find idolatry, theology, and mythology, almost inseparably blended. The inhabitants of this region and its vicinity adhered for several centuries to the worship of the true God. At last, however, from an affected sense of their own ignorance, impurity, imperfection, and unfitness to approach an infinitely perfect Being, they began to look for some beings more perfect than themselves, by whose mediation they might offer their prayers to the supreme Majesty of heaven. The celestial luminaries, which they imagined were animated bodies, were thought to partake of the divine nature: they were revered as the representatives of the Lord of the universe; they were visible, they were beneficent; they dwelt nearer to the gods. These were, of course, employed as mediators between the supreme Divinity and his humble subjects; and a subordinate share of worship was assigned them. In time, however, that worship which was originally addressed to the supreme Creator, by the mediation of the heavenly bodies, ultimately terminated on those illustrious creatures. To this circumstance we may ascribe the origin of that species of idolatry called Zabiism, or the worship of the host of heaven, which overspread the world early and almost universally. In Egypt this mode of worship was adopted in all its most absurd forms; and the most heterogeneous mythology appeared in its train. The mythology of the ancient Egyptians was so various and multiform, so complicated and so mysterious, that it would require many volumes even to give a superficial account of its origin and progress. We shall, therefore, only mention some of the most interesting articles of this complicated system.

The Egyptians confounded the revolutions of the heavenly bodies with the reigns of their most early monarchs. Hence the incredible number of years in the reigns of their eight superior gods, who, according to them, filled the Egyptian throne successively in the most early

periods of time. To these, according to their system, succeeded twelve demigods, who likewise reigned an amazing number of years. These imaginary reigns were merely the periodical revolutions of the heavenly bodies. Hence the fabulous antiquity of that kingdom. The imaginary exploits and adventures of these gods and demigods furnished an inexhaustible fund of mythological romances. To the demigods succeeded the kings of the cynic cycle, personages equally chimerical with the former. After these princes came another race, denominated Nekyes, a title implying royal, splendid, glorious. These cycles figure high in the mythological annals of Egypt, and have furnished materials for a variety of learned disquisitions. The wars and adventures of Osiris, Orus, Typhon, and other allegorical personages; the wanderings of Isis; the transformations of the gods into various animals; their birth, education, peregrinations, and exploits;—compose a body of mythological fictions, so complicated, so ridiculous, and often so absurd, that all attempts to explain them have hitherto proved unsuccessful. All those extravagant fables are the offspring of hieroglyphical or allegorical emblems, devised by the priests and sages of that nation, to conceal the mysteries of their religion from the inferior ranks. See MYSTERIES.

The worship of brutes and of certain vegetables, universal among the Egyptians, was another exuberant source of mythological adventures. The Egyptian priests, many of whom were profound philosophers, observed a kind of analogy between the qualities of certain animals and vegetables, and those of some of their subordinate divinities. These they consecrated to the deities to whom they were supposed to bear this analogy, and in time they considered them as the visible emblems of those divinities. By these the vulgar addressed their archetypes; and in time, forgetting the emblematical character of those brutes and vegetables, addressed their devotion immediately to them. After these animals were consecrated as the visible symbols of the deities, they began to use their figures to represent those deities. Hence Jupiter Ammon was represented under the figure of a ram, Apis under that of a cow, Osiris of a bull, Pan of a goat, Thoth of an ibis, Bubastis or Diana of a cat, &c. It was likewise a common practice to dignify those objects by the names of those deities which they represented. Thus the veneration of the people was enhanced, and the ardor of their devotion inflamed. From these sources are derived the fabulous transformations of the gods, so generally celebrated in the Egyptian mythology, and from Egypt imported into Greece and Italy.

Their Thoth, or Mercurius Trismegistus, was the inventor of this unhappy system. He was esteemed the original author of letters, geometry, astronomy, music, architecture; of all the elegant and useful arts, and of all the branches of science and philosophy. He first discovered the analogy between the divine affections, influences, appearances, operations, and the corresponding properties, qualities, and instincts of certain animals, and the propriety of dedicating particular vegetables to particular deities. The priests, whose province it was to expound the mysteries of that allegorical hieroglyphical religion, gradually lost all knowledge of the primary import of the symbolical characters. To supply this defect, and to veil their own ignorance, they had recourse to fable and fiction. They heaped fable upon fable, till their religion became an accumulated chaos of mythological absurdities.

Two of the most learned and acute of the ancient philosophers attempted an explication of the Egyptian mythology, but both have failed; nor have modern critics who have made similar attempts had much better success. Instead, therefore, of prosecuting this inexplicable subject, we refer those who wish for further information to Herodotus, lib. ii.; Diodorus Siculus, lib. i. Plut. Isis and Osiris; Jamblichus de Myst. Egypt. Horapollo Hieroglyp. Egyyt. Macrob. Sat. cap. 23. Kircher's Oedip. Voss. de Orig. et Prog. Idol. Bryant's Analysis of anc. Mythol. M. Gebelin Monde prim.; and to the learned Jablonsk's Panth. Egvptiorum.

The elements of Phœnician mythology have been preserved by Eusebius in his Præp. Evang. In the large extract, which that learned father has copied from Philo-Biblius's translation of Sanchoniatho's History of Phœnicia, are several articles of mythology, which throw considerable light on several passages of the sacred history; and all of them are strictly connected with the mythology of the Greeks and Romans. They contain a brief but entertaining detail of the fabulous adventures of Uranus, Cronus, Dagon, Thyoth, Muth or Pluto, Æphcestus or Vulcan, Æsculapius, Nereus, Poscedon or Neptune, &c. Astarte, or Venus Urania, makes a conspicuous figure in the catalogues of Phœnician deities; Pallas is planted on the territory of Attica; in a word, all the branches of the family of the Titans, who in after ages figured in the rubric of the Greeks, are brought upon the stage, and their exploits briefly detailed.

By comparing this fragment with the mythology of the Atlantidæ, and that of the Cretans preserved by Diodorus the Sicilian (lib. v.) there is reason to conclude that the family of the Titans, the several branches of which seem to have been both the authors and objects of a great part of the Grecian idolatry, originally emigrated from Phœnicia. Almost all their names, in the fabulous records of Greece, may be easily traced up to a Phœnician original. We agree with Herodotus, that a considerable part of the idolatry of Greece may have been borrowed from the Egyptians; but it is highly probable that the idolatry of the Egyptians and that of the Phœnicians were, in their original constitution, nearly the same. Both systems were Sabiism, or the worship of the host of heaven.

The adventures of Jupiter, Juno, Mercury, Apollo, Diana, Mars, Minerva, Venus, Bacchus, Ceres, Proserpine, Pluto, Neptune, and the other descendants of the ambitious family of the Titans, furnish the greatest part of the mythology of Greece. They left Phœnicia about the age of Moses; they settled in Crete, whence they made their way into Greece, which was then inhabited by savages. The arts and in-

ventions which they communicated to the natives; the mysteries of religion which they inculcated; the laws, customs, polity, and good order, which they established; in short, the blessings of humanity and civilisation, which they every where disseminated, in process of time inspired the unpolished inhabitants with a kind of religious admiration. Those ambitious mortals improved this admiration into divine homage. The greater part of that worship, which had been formerly addressed to the luminaries of heaven, was now transferred to those illustrious personages. They claimed and obtained divine honors from the deluded rabble of enthusiastic Greeks. Hence sprung an inexhaustible fund of the most inconsistent fictions.

The foibles and frailties of the deified mortals were transmitted to posterity, incorporated with the pompous attributes of divinity. Hence the heterogeneous mixture of the mighty and the mean which chequers the characters of the gods and heroes of the Iliad and Odyssey. The Greeks adopted the oriental fables; the import of which they did not understand. These they accommodated to heroes and illustrious personages, who had figured in their own country in the earliest periods. The labors of Hercules originated in Egypt, and relate to the annual progress of the sun in the zodiac; but the vainglorious Greeks accommodated them to a hero of their own, the reputed son of Jupiter and Alcmena. The expedition of Osiris they borrowed from the Egyptians, and transferred to their Bacchus, the son of Jupiter and Semele, the daughter of Cadmus. The transformation and wanderings of Io seem evidently transcribed from the Egyptian romance of the travels of Isis in quest of the body of Osiris, or of the Phœnician Astarte, drawn from Sanchoniathon. Io or Ioh is in reality the Egyptian name of the moon, and Astarte was the name of the same planet among the Phœnicians. See ASHTAROTH. Both these fables are allegorical representations of the anomalies of that planet. The fable of the conflagration occasioned by Phaeton is clearly of oriental extraction, and alludes to an excessive drought, which anciently scorched Ethiopia and the adjacent countries. The adventures of Perseus are said to have happened in the same regions, and are allegorical representations of the influence of the solar luminary; for the original Perseus was the sun. The rape of Proserpine and the wanderings of Ceres; the Eleusinian mysteries; the orgia of Bacchus; the rites and worship of the Cabiri, were imported from Egypt and Phœnicia; but strangely garbled and disfigured by the hierophants of Greece. The gigantomachia, or war between the gods and the giants, and all the fabulous events of that war, form a counterpart to the battles of the Peri and Dives, celebrated in the romantic annals of Persia.

A considerable part of the mythology of the Greeks sprung from their ignorance of the oriental languages. They disdained to study the languages spoken by people whom, in their pride, they styled barbarians. This aversion to every foreign dialect was highly detrimental to their progress in the sciences. The same neglect or aversion has proved an irreparable injury to the republic of letters in all ages. The Aoids, or strolling bards, laid hold on these oriental legends, which they sophisticated with their own additions, to accommodate them to the popular taste. These wonderful tales figured in their rhapsodical compositions, and were greedily swallowed by the credulous vulgar. Those fictions were constantly augmented with fresh materials, till in time their original import was either forgotten or buried in impenetrable darkness. A multitude of these Hesiod has collected into his Theogonia, or Generation of the gods, which unhappily became the religious creed of the illiterate part of the Greeks.

The far-famed oracle of Dodona was copied from that of Ammon of Thebes in Egypt: the oracle of Apollo at Delphos was an emanation from the same source. The celebrated Apollo Pythius of the Greeks was no other than Ob or Aub of the Egyptians, who denominated the basilisk or royal snake Ov Cai, because it was held sacred to the sun. Ob or Aub is still retained in the Coptic dialect, and is one of the many names or epithets of that luminary. In short, the ground-work of the Grecian mythology is to be traced in the east. Only a small part of it was fabricated in the country; and what was imported pure and genuine was miserably sophisticated by the hands through which it passed, to accommodate it to the Grecian taste.

The Roman mythology was borrowed from the Greeks. That people had addicted themselves for many centuries to war and civil polity. Science and philosophy were either neglected or unknown. At last they conquered Greece, the native land of science, and then 'Græcia capta ferum victorem cepit arte, et intulit agresti Latio.' This being the case, their mythology was, upon the whole, a transcript from that of Greece. They had indeed previously gleaned a few fables from the Pelasgi and Hetruscans.

The mythology of the Celtic nations is in a great measure lost. There may still remain some vestiges of the Druidical superstitions in the remotest parts of the Highlands and islands of Scotland; and in the uncivilised places of Ireland. These, we presume, would afford little entertainment, and less instruction.

The mythology of the Norwegians, Danes, Swedes, Icelanders, &c., are uncommonly curious and entertaining. The Edda and Voluspa contain a complete collection of fables, which have not the smallest affinity with those of the Greeks and Romans. The Edda was compiled in Iceland in the thirteenth century. It is a kind of system of the Scandinavian mythology; and has been reckoned a commentary on the Voluspa, which was the bible of the Northern nations. Odin, Othin, Woden or Wodan, was the supreme divinity of those people. His exploits and adventures furnish the far greatest part of their mythological creed. That hero is supposed to have emigrated from the east; but from what country or at what period is not known. His achievements are magnified beyond all credibility. He is represented as the god of battles, and as slaughtering thousands at a blow. His palace is called Valhalla; it is situated in the city

of Midgard, where, according to the fable, the souls of heroes who had bravely fallen in battle enjoy supreme felicity. They spend the day in mimic hunting-matches, or imaginary combats. At night they assemble in the palace of Valhalla, where they feast on the most delicious viands, dressed and served up by the Valkyriæ, virgins adorned with celestial charms, and flushed with the bloom of everlasting youth. They solace themselves with drinking mead out of the skulls of enemies whom they killed in their days of nature. Mead was the nectar of the Scandinavian heroes.

Sleipner, the eight-legged steed of Odin, is celebrated along with his master. Hela, the hell of the Scandinavians, affords a variety of fables equally shocking and heterogeneous. Lok, the evil genius or devil of the northern people, nearly resembles the typhon of the Egyptians. Signa or Sinna is the consort of Lok; from which name the English word sin is derived. The giants Weymur, Ferbanter, Belupher, and Hellunda, perform a variety of exploits, and are exhibited in the most frightful attitudes. They perform the counterpart of the giants of the Greek and Roman mythologists. Without enlarging on these ridiculous and uninteresting fables, we shall give a brief account of the contents of Voluspa, which is indeed the text of the Scandinavian mythology.

The word Voluspa imports, the prophecy of Vola or Fola. This was perhaps a general name for the prophetic ladies of the north, as Sybil was appropriated to women endowed with the like faculty in the south. Certain it is, that the ancients generally connected madness with the prophetic faculty. Of this we have two celebrated examples; the one in Lycophron's Alexandria, and the other in the Sybil of the Roman poet. The word vola signifies mad or foolish; whence the English words fool, foolish, folly. Spa signifies to prophecy, and is still current in Scotland in the word spæ, which has the same signification. The voluspa consists of between 200 and 300 lines. The prophetess, having imposed silence on all intelligent beings, declares that she is about to reveal the works of the father of nature, the actions and operations of the gods, which no mortal ever knew before herself. She then begins with a description of the chaos; and then proceeds to the formation of the world, the creation of the different species of its inhabitants, giants, men, and dwarfs. She then explains the employments of the fairies or destinies, whom the northern people call nornies; the functions of the deities, their most memorable adventures, their disputes with Lok, and the vengeance that ensued. She at last concludes with a long and animated description of the final state of the universe, and its dissolution by a general conflagration.

In this catastrophe, Odin, and all the rabble of the pagan divinities, are to be confounded in the general ruin, no more to appear on the stage of the universe. Out of the ruins of the former world, according to the Voluspa, a new one shall spring up, arrayed in all the bloom of celestial beauty. Such is the doctrine exhibited in the fabulous Voluspa.

In America the only mythological countries were Mexico and Peru. The other parts of that large continent were originally inhabited by savages, most of them as remote from religion as from civilisation. The two vast empires of Mexico and Peru had existed about 400 years only before the Spanish invasion. In neither of them was the use of letters understood; and of course the ancient opinions of the natives relating to the origin of the universe, the changes which succeeded, and every other monument of antiquity, were obliterated and lost. Clavigero has indeed enumerated a vast canaille of sanguinary gods worshipped by the Mexicans; but produces nothing either entertaining or interesting with respect to their mythology. The information to be derived from any other quarter is little to be depended upon. It passes through the hands of bigoted missionaries or other ecclesiastics who were so deeply tinctured with fanaticism, that they viewed every action, every sentiment, every custom, every religious opinion and ceremony of those half-civilised people, through a false medium. They often imagined they discovered resemblances and analogies between the rites of those savages and the dogmas of Christianity, which no where existed but in their own heated imagination.

The only remarkable piece of mythology, in the annals of the Peruvians, is the pretended extraction of Manco Capac, the first inca of Peru, and of Mama Ocolla his consort. These two illustrious personages appeared first on the banks of the lake Titiaca. They were persons of a majestic stature, and clothed in decent garments. They declared themselves to be the children of the sun, sent by their beneficent parent, who beheld with pity the miseries of the human race, to instruct and to reclaim them. Thus we find these two legislators availed themselves of a pretence which has often been employed in more civilised regions to the very same purposes. The idolatry of Peru was gentle and beneficent; that of Mexico gloomy and sanguinary. Hence we may see that every mode of superstition, where a divine revelation is not concerned, borrows its complexion from the characters of its professors.

In this article, for which we are greatly indebted to the late Dr. Doig of Stirling, we have not much enlarged upon the mythology of the Greeks and Romans; that subject being so universally understood by the learned that a minute discussion of it would be superfluous; more especially as it is sufficiently noticed in this work, under the respective names of the numerous gods, demigods, and heroes, who were celebrated in the ancient Grecian and Roman mythology. See JUPITER, APOLLO, HERCULES, MARS, &c., in their alphabetical places.

MYTILENE or Lesbos, an island of the Grecian Archipelago, celebrated as the birthplace of Sappho and Theocritus, Arion, Terpander, &c. See LESBOS. We may add here that the chief town, named Metelin or Castro, is on the south-east, and stands on a peninsula forming two ports. The northernmost is sheltered by a pier to the north, and receives small vessels, the south is only fit for boats, and vessels of burden are obliged to anchor in the roads, entirely exposed to the north-east. The town is surrounded by a double wall flanked with towers, and has a citadel, formerly garrisoned with 500 Janissaries.

Port Yero, near the south-east point of the island, or the Port of Olives, is one of the most spacious and safe harbours of the Archipelago, and abounds with excellent oysters. Port Caloni, on the south-west, is also a large and safe road, but little frequented. Port Sigri (Antissa), at the west end, is an excellent harbour, sheltered by a little island (Neriope).

MYTILUS, the mussel, in ichthyology, a genus of animals, belonging to the order of vermes testacea. The animal is an ascidia; the shell bivalve; often affixed to some substance by a beard; the hinge without a tooth, marked by a longitudinal line. Of these animals there are sixty species, some of them inhabiting the seas, others the rivers and ponds. Several of them are remarkable for the beauty of their internal shell, and for the pearls which are sometimes found in them.

1. M. anatinus, the duck-mussel, has a shell more oblong and less convex than the swan-mussel, is very brittle, and semitransparent; the space round the hinges like the swan; the length about five inches, breadth two. It is found in Europe in fresh waters. Both it and the swan are devoured by swans and ducks; whence their names; crows also feed on these mussels, as well as on different other shell-fish; and, when the shell is too hard for their bills, they fly with it to a great height, drop the shell on a rock, and pick out the meat when the shell is fractured by the fall.

2. M. christagalli, the cock's-comb mussel, has the shell folded or plaited as it were, spiny, and both lips rugged. It makes its abode in the coral beds of the Indian Ocean.

3. M. cygneus, the swan-mussel, with a thin brittle shell, very broad and convex, marked with concentric striæ; attenuated towards one end, dilated towards the other; decorticated about the hinge; the color a dull green; the length six inches, breadth three and a half. It is an inhabitant of the European rivers, frequenting chiefly their mouths. Fresh water mussels are not so good eating as the sea-mussel. The river-mussel, according to M. Poupart, swims in the water, and sometimes appears to flutter on its surface. But we believe it more commonly creeps in the mud, where it remains almost always at rest. The pond-mussel is always larger than that which is found in rivers; and it is a more solitary animal. In its motion it makes tracks in the sand and mud, and it penetrates into it two or three inches, and sometimes more. Pearls of considerable beauty are found in several river-mussels; of this kind are the Scotch mussels, those of Valogues in Lorrain, of St. Savinier of Bavaria, and of the marshes near Augsburgh.

4. M. edulis, the edible mussel, has a strong shell, slightly incurvated on one side, and angulated on the other. The end near the hinge is pointed, the other rounded. When the epidermis is taken off, it is of a deep blue color. It is found in immense beds, both in deep water and above low-water mark. The finest mussels in Britain are those called Hambleton hookers, from a village called Hambleton. They are taken out of the sea, and placed in the river Wier, within reach of the tide, where they grow very fat. This species inhabits the European and Indian seas. Between the tropics it is largest, and smallest within the polar circle. This species has, from its being for the most part fastened to the rocks, been supposed by many wholly incapable of progressive motion; but this M. Reaumur has shown to be an erroneous opinion. It is a common practice in France, at such seasons of the year as do not afford sun enough to make salt, to throw the common sea-mussels, which the fishermen catch about the coasts, into the brine pits, to render their flesh more tender and delicate, as the rain, which falls at these seasons, makes the water of the pits much less salt than the sea-water. The mussels are on this occasion thrown carelessly in, in several different parts of the pits; yet, at whatever distances they have been thrown in, the fishermen, when they go to take them out, always find them in a cluster together; and as there is no current of water in these places, nor any other power of motion which can have brought the mussels together, it is evident that they must voluntarily have marched from the places where they were at first, to have met thus together. This progressive motion is performed by means of what we call the tongue of the mussel, from its shape; but, from its use in this case, it appears rather to merit the name of a leg, or an arm, as by laying hold of any distant substance, and then forcibly contracting itself again, it draws along the whole body of the animal. The same part, when it has moved the animal to a proper place, serves also to fix it there, being the organ by which it spins the threads which we call its beard, by which it is held to a rock, or to another mussel. The motion of the mussel, by means of this part, is just the same with that of a man laid flat on his belly, who would draw himself along by laying hold of any thing with one hand, and then drawing himself to it. Mussels not only open and shut their shells at pleasure, but they respire water like fishes; and some even flutter about on its surface to inhale air. If they lie in shallow places, a small circular motion is seen above the heel of the shell; and a few moments after, they cast out the water by one single stroke at the other end of the shell. The mouth is situated near the sharp angle of the animal, and is furnished with four floating fringes in the shape of mustachios, which perhaps answer the purpose of lips. The barbs, which surround the edge of almost half the mussel, are a web of hollow fibres which serve as fins or organs of respiration, as vessels for the circulation of the fluids, and pro-

bably, as wedges for opening their shells; for we observe two large muscles or tendons for the purpose of shutting them; but we in vain look for their antagonists, or those which are destined to open them. When the mussel wishes to open itself, it relaxes the two muscles or tendons, and swells the fringes, which act as wedges and separate the shells. The animal shuts up itself by the contraction of two thick fibrous muscles which are fixed internally to each end of the shells; and these shells are lined all around with a membrane or epidermis, which unites them so closely together when they are soaked in water, that not the smallest drop can escape from the mussel. When mussels choose to move, they often contrive to raise themselves on the sharp edge of their shells, and drag themselves along in a kind of groove or furrow which they form in the sand or mud, and which supports the shell on both sides. In ponds, these furrows are very observable. Mussels are well known to have a power of fastening themselves either to stones, or to one another's shells, in a very firm manner; but the method of doing this was not well understood till M. Reaumur explained it. From the root of the tongue above mentioned, or that part of it which is fastened to the body of the fish, there are produced a great number of threads, which, when fixed to any solid substance, hold the mussel firmly in its place: these threads are usually from an inch to two inches in length, and in thickness from that of a hair to that of a hog's bristle. They issue out of the shell in that part where it naturally opens, and fix themselves to any thing that lies in their way; to stones, to fragments of shells, or, which is the most common case, to the shells of other mussels; whence it happens that there are usually such large quantities of mussels found together. These threads are expanded on every side, and are usually very numerous, 150 having been found issuing from one shell: they serve the office of so many cables; and, each pulling in its proper direction, they keep the mussel fixed against any force that can be offered from whatever part it come. The filaments are well known to all who eat mussels, who ever carefully separate them under the name of the beard; and M. Reaumur has found, that while the animal is living in the sea, if they are all torn away by any accident, the creature has a power of substituting others in their room: he found, that if a quantity of mussels were detached from one another, and put into a vessel of any kind, and in that plunged into the sea, they in a little time fastened themselves both to the sides of the vessel and to one another's shells; the extremity of each thread seemed in this case to serve in the manner of a hand to seize upon any thing that it would fix to, and the other part, which was slenderer and smaller, to do the office of conducting it. To know the manner of the mussels performing this operation, M. Reaumur put some mussels into a vessel in his chamber, and covered them with sea water; he there saw that they soon began to open their shells, and each put forth its arm or tongue, at the root of which these threads grow; they extended and shortened this part several times, and thrust it out every way, often giving it not less than two inches in length, and trying before, behind, and on every side with it, what were the proper places to fix their threads at: at the end of these trials they let it remain fixed for some time on the spot which they chose for that purpose, and then drawing it back into the shell with great quickness, it was easy to see that they were then fastened by one of these threads to the spot where it had before touched and remained fixed for a few minutes; and in repeating this workmanship the threads are increased in number one at every time, and, being fixed in different places, they sustain the fish at rest against any common force. The several threads were found to be very different from one another; the new formed ones being ever whiter, more glossy, and more transparent than the others; and it appeared on a close examination, that it was not the office of the tongue to convey the old threads one by one to the new places where they were now to be fixed, but that these in reality were now become useless; and that every thread we see now formed, is a new one made at this time; and in fine, that nature has given to some sea fishes, as well as to many land insects, a power of spinning those threads for their necessary uses; and that mussels and the like fish are under water, what caterpillars and spiders are on the land. To be well assured of this, M. Reaumur cut off the beard or old threads of a mussel as close as he could, without injuring the part; and he found that those, whose beards or old threads were cut off, fixed themselves as soon as those in which they were left, and spread their threads to as great a distance every way. When the mechanism of this manufacture was thus far understood, it became a natural desire to enquire into the nature of the part by which it was performed. This tongue, or arm of the fish, whenever it happens to be loosened, or fixed in a wrong place, serves the animal to drag its whole body, shell and all along, and to perform its several motions. It fixes itself to some solid body; and then, strongly contracting its length, the whole fish must necessarily follow it, and be pulled toward the place where it is fixed. This is a use, however, that this part is rarely put to; its chief employment being to spin the threads. Though this body is flat, like a tongue, for the greater part of its length, it is rounded or cylindric about the base or insertion, and is much smaller there than in any other part: there are several muscular ligaments fastened to it about the root or base, which hold it firmly against the middle of the back of the shell; of these ligaments there are four which are particularly observable, and which serve to move the body in any direction. There runs all along this body a slit or crack, which pierces very deeply into its substance, and divides it as it were into two longitudinal sections; this is properly a canal, and along this is thrown the liquor which serves to form the threads; and it is in this canal or slit that these threads are moulded into their form. Externally this appears only a small crack or slit, because the two fleshy sections of the parts almost meet and cover it; but it is rounded and deep within, and is surrounded with circular fibres. This canal is carried regularly on from the tip of the

tongue to its base, where it becomes cylindric; the cylinder in this part being no other than a close tube or pipe, in which this open canal terminates. The cylindric tube contains a round oblong body, of the nature of the threads, except that it is much larger; and from the extremity of this all the threads are produced, this serving as a great cable to which all the other little cordages dispersed towards different parts are fixed. The tube or pipe in which this large thread is lodged seems the reservoir of the liquor of which the other threads are formed; all its internal surface being furnished with glands for its secretion. The mussel, like many other sea fishes, abounds in this liquor; and if at any time one touch with a finger the base of this spinning organ, one draws away with it a viscous liquor in form of several threads, like those of the caterpillar, spider, and the other spinning land animals. The threads fix themselves with equal ease to the most smooth and glossy, as to rougher bodies; if the mussels are kept in glass jars of sea water, they as firmly fasten themselves to the glass as to any other body. Mussels, be they ever so young, have this property of spinning; and by this they fasten themselves in vast numbers to any thing which they find in the sea. M. Reaumur has seen them, when as small as millet-seeds, spin plentifully, though their threads, proportioned to their own weight, are much finer and smaller than those of larger mussels. It is in the spring that mussels lay their eggs; there being none found in them but in winter. M. Leuwenhoek, in several mussels which he dissected, discovered numbers of eggs, or embryo mussels, in the ovarium, appearing as plainly as if he had seen them by the naked eye, and all lying with their sharp ends fastened to the string of vessels by which they receive nourishment. The minute eggs or embryos are by the parent placed in due order, and in a very close arrangement on the outside of the shell, where, by means of a gluey matter, they adhere very fast, and continually increase in size and strength, till, becoming perfect mussels, they fall off and shift for themselves, leaving the holes where they were placed behind them. This abundance the mussel shells very plainly show, when examined by the microscope, and sometimes the number is 2000 or 3000 in one shell; but it is not certain that these have been all fixed there by the mussel within; for these fish usually lying in great numbers near one another, the embryos of one are often affixed to the shell of another. The fringed edge of the mussel, which Leuwenhoek calls the beard, has in every the minutest part of it such variety of motions as is inconceivable; for, being composed of longish fibres, each fibre has on both sides a vast number of moving particles. The mussel is infested by several enemies in its own element; according to Reaumur it is in particular the prey of a small shell-fish of the trochus kind. This animal attaches itself to the shell of the mussel, pierces it with a round hole and introduces a sort of tube five or six inches long, which it turns in a spiral direction, and with which it sucks the substance of the mussel. Mussels are also subject to certain diseases, which have been supposed to be the cause of those bad effects which sometimes happen from eating them. These are stated by Dr. Mœhring to be the moss and the scab. The roots of the moss being introduced into the shell, the water penetrates through the openings, and gradually dissolves the mussel. The scab is formed by a sort of tubercles which are produced by the dissolution of the shell. Certain small scabs, which are sometimes found in mussels, likewise tend to make them unwholesome.—The eating of mussels has sometimes produced erysipelatous inflammations, cutaneous eruptions, insupportable itching all over the body, great restlessness and agitation; and though these complaints are easily removed by oil, milk, and emetics, and have seldom or never proved mortal, yet they have an alarming aspect, and make the patient suffer grievously. Some authors pretend that these effects never take place but between the vernal and autumnal equinox; and Dr. Beaunie, of Antwerp, in a memoir on this subject, seems inclined to adopt this opinion; for he recommends abstinence from mussels during May, June, July, and August. The cause of these noxious effects is, he says, altogether accidental. They are occasioned by a species of stella marina, a little sea insect pretty common about the mouth of the Scheldt, which sometimes lodges itself in the mussel in quest of food; and whose spawn is so caustic and inflammatory, that, even when applied outwardly to the skin, it produces itchings and swellings that are painful in a high degree. Others impute the disorder in question to an unperceived commencement of putrefaction in the mussel; and there is no sort of putrefaction more noxious and offensive than that of fish. Upon the whole, the eatable mussel, though a rich food, is difficult of digestion. In its best state it is noxious to some constitutions; and when affected by disease is in some degree poisonous. Mussels are apt to do most harm when eaten raw. They ought always to be boiled with onions, well washed with vinegar, and seasoned with pepper; and, even thus qualified, they should not be eaten to excess, or too frequently.

M. lithophagus, the stone-eater, has the shell cylindric, the extremities both ways being rounded. It inhabits the Indian, European, and Mediterranean Seas, penetrating and eating away marbles, corals, &c. The Indian shell is softer and nearly tough like leather, but the European is more brittle. It works its way into the chalk-stone, by a kind of saw at its head. It is defended from all enemies by prickly scales. In Italy it is prized as a great delicacy, the taste resembling an oyster, but with a far superior flavor. It is mentioned in Smith's Tour. The columns of the temple of Jupiter Serapis, at Puzzoli, are perforated by this species. One of them was discovered in England in the centre of a chalk-stone, in August 1801.

M. Margaritiferous, the pearl-bearing mussel, has the shell compressed and flat, nearly orbicular, the base transverse, and imbricated with dentated coats. It dwells in the ocean of either India. This is the mater perlarum of Rumphius, or mother-of-pearl shell. On the inside it is exquisitely polished, and of the whiteness and water of pearl itself. It has also the same lustre

on the outside after the external laminæ have been taken off by aquafortis and the lapidary's mill. Mother-of-pearl is used in inlaid works, and in several toys, as snuff-boxes, &c.

M. modiolus, the great mussel, with a strong shell, blunted at the upper end, one side angulated near the middle, from thence dilating towards the end, which is rounded. It dwells in the Mediterranean, Indian, European, and American seas; and its flesh, which is a deep orange color, is eatable. It is the greatest of the mussels known in Britain, being from six to seven inches in length; it lies at great depths, often seizes the baits of ground lines, and is taken up with the hooks.

M. violacea, the violet mussel, has the shell longitudinally furrowed, the rim very obtuse, somewhat formed like the mytillus edulis, but considerably larger and more flattened, of a beautiful violet color. Inhabits the Southern Ocean.

MYTTOTON, a coarse kind of food, used by the laboring people among the Greeks, and sometimes among the Romans. It was made of garlic, onions, eggs, cheese, oil, and vinegar, and reckoned very wholesome.

MYUS, in ancient geography, one of the twelve towns of Ionia; seated on the Mœander, at the distance of thirty stadia from the sea. In Strabo's time it was incorporated with the Milesians, on account of the paucity of its inhabitants, from its being formerly overwhelmed with water; for which reason the Ionians consigned its suffrage and religious ceremonies to the people of Miletus. Artaxerxes allotted this town to Themistocles, to furnish his table with meat; Magnesia was to support him in bread, and Lampsacus in wine. The town now lies in ruins.

MYXINE, the hag, a genus of insects belonging to the order of vermes intestini. It has a slender body, carinated beneath; mouth at the extremity cirrated; the two jaws pinnated; an adipose or rayless fin round the tail and under the belly. The only remarkable species is the

M. glutinosa, about eight inches long. It inhabits the ocean; enters the mouths of fish when on the hooks of lines that remain a tide under water, and totally devours the whole, except skin and bones. The Scarborough fishermen often take it in the inside of the fish, on drawing up their lines. Linné attributes to it the property of turning water into glue.

N.

N, as a letter, is the fourteenth in the Hebrew, and the thirteenth in Greek, Latin, English, and other modern alphabets. It is the tenth consonant and the third liquid. N is a nasal consonant. The abbé Dangeau observes, that in the French the *n* is frequently a mere nasal vowel, without any thing of the consonant in it. He calls it the Sclavonic vowel. The Hebrews call it nun, which signifies child, as being supposed the offspring of *m*; partly on account of the resemblance of sound, and partly of the figure. Hence the Latins frequently convert the Greek *ν*, at the end of a word, into *m*, as *φαρμακον*, pharmacum, &c. See M. In composition the Latins change N before *p*, *b*, and *m* into *m*, and frequently into *l* and *r*; as in in-ludo, illudo; in-rigo, irrigo, &c.; in which they agree with the Hebrews, who, in lieu of nun, frequently double the next consonant; and the Greeks do the same. The Greeks also, before κ, χ, γ, ν, changed the *ν* into γ, in which they were followed by the ancient Romans; who, for Angulus, wrote Aggulus; for anceps, agceps, &c. The Latins retrench the *n* from Greek nouns ending in *ων*; as *Λεων*, Leo; *Δρακων*, Draco; on the contrary, the Greeks add it to the Latin ones ending in *o*; as, *Κατων*, *Νερων*, Cato, Nero. As a numeral, N was used among the ancients for 900; according to Baronius,

N. quoque nongentos numero designat habendos.

And when a line was struck over it (N̄), it implied 9000. As an abbreviation, N. L. was used among the ancient lawyers for non liquet, i. e. the cause is not clear enough to pass sentence upon.

NAAMAN. Heb. נעמן, i. e. fair. A brave Syrian general, of whose miraculous cure of a leprosy, by washing in the Jordan, at the command of Elisha, a very interesting account is recorded in 2 Kings v. The rabbies have a tradition, that it was Naaman who drew the bow at a venture, and killed Ahab. See 1 Kings xxii. 34.

NAARDA, Nearda, Neerda, or Neharda, in ancient geography, a town situated on the confines of Mesopotamia and Babylonia; populous, and with a rich and extensive territory, not easily to be attacked by an enemy, being surrounded on all sides by the Euphrates and strong walls. Josephus. In the lower age the Jews had a celebrated school there.

NAARDEN, or Naerden, a fortified sea-port of the Netherlands, on the Zuyder Zee. It is chiefly secure from the facility with which the neighbourhood may be inundated, and its situation renders it of importance in the defence of Amsterdam. Population 1800. Eleven miles E. S. E. of Amsterdam, and fourteen north of Utrecht.

NAAS, a borough and post town of Ireland in Kildare, Leinster. It is the county town, and alternately with Athy, the assizes town. It has five fairs, and was anciently the residence of the kings of Leinster; the name signifies the place of elders, for here the states of that province assembled during the sixth, seventh, and eighth centuries, after the Naastelghan of Carmen had been anathematised by the Christian clergy. On the arrival of the English it was fortified; many castles were erected, the ruins of which are partly visible; and parliaments were held there. At the foot of the mount or rath are the ruins of a house founded in 1484, for hermits of the order of St. Augustin. On the 24th of May 1798 this town was attacked by a large body of rebels,

who were driven into a narrow lane, where they sustained for a considerable time the fire of the Armagh militia and Sir W. W. Wynne's fencibles, before they were repulsed. They had 140 killed, besides many taken prisoners. The king's troops lost two officers and thirty men. It is fifteen miles south-west of Dublin.

NAB, *v. a.* Dan. *naape;* Swed *nappa.* To catch unexpectedly; seize without warning. A word seldom used but in low language.

NAB, or NAAB, a river of Bavaria, formed of three streams of this name, the Bohemian Nab, rising on the borders of that country; the Haid Nab, and the Wald Nab, which has its source in the Fichtelberg Mountains. The three streams unite at the town of Au, and fall into the Danube below Ratisbon. In the lower part it is navigable for boats.

NABAL, a town of Tunis, in the peninsula of Hamamet. At the distance of about a furlong are the ruins of the ancient Neapolis. They are marked by a number of inscriptions upon large stones. The modern town is celebrated for its pottery. Thirty-two miles S. S. E. of Tunis.

NABAL, Heb. נבל, i. e. a fool, a rich Israelite of Carmel, whose churlishness had nearly provoked David to extirpate his whole family, had not Abigail's prudence pacified him.

NABATENE, or REGIO NABATAEORUM, according to Jerome, comprised all the country lying between the Euphrates and the Red Sea, and thus contained Arabia Deserta, with a part of Petræa; so called from Nabaioth, the first born of Ishmael. According to Diodorus, it was situated between Syria and Egypt.

NABIS, a tyrant of Sparta, who reigned about A. A. C. 204, and contrived an instrument of torture in the form of a statue of a beautiful woman, whose rich dress concealed a number of iron spikes in her bosom and arms. When any one therefore opposed his demands, he would say, 'If I have not talents enough to prevail with you, perhaps my Apega may persuade you.' The automaton statue then appeared; which Nabis taking by the hand, led up to the person, who, being embraced by it, was thus tortured into compliance. To render his tyranny less unpopular, Nabis made an alliance with Flaminius the Roman general, and pursued with the most inveterate enmity the war against the Achæans. He besieged Gythium, and defeated Philopœmen in a naval battle. His triumph was short; Philopœmen soon repaired his losses, and Nabis was defeated, and killed as he attempted to fly, about A. A. C. 194.

NABO, or NEBO, in mythology, a deity of the Babylonians, who possessed the next rank to Bel. It is mentioned by Isaiah, ch. xlviii. Vossius supposes that Nabo was the moon, and Bel the sun; but Grotius thinks that Nabo was some celebrated prophet of the country, the etymology of the name signifying, according to Jerome, 'one that presides over prophecy:' the moon, however, was supposed by many ancient nations to have great influence on prophetical powers.

NABOB, properly NAVAB, the plural of Naib, a deputy. As used in Bengal, it is the same as Nazim. It is a title also given to the wives and daughters of princes, as well as to the princes themselves.

NABONASSAR, the first king of the Chaldeans or Babylonians; memorable for the Jewish era which bears his name. See CHRONOLOGY. The Babylonians revolting from the Medes, who had overthrown the Assyrian monarchy, founded a dominion under Nabonassar, which was much increased under Nebuchadnezzar. It is probable that this Nabonassar is that Baladan, father of Merodach, who sent ambassadors to Hezekiah: 2 Kings xx. 12; 2 Chron. xxxii.

NABOPOLASSAR, king of Babylon; he joined with Astayges the Mede, to destroy the empire of Assyria; which having accomplished, they founded the two empires of the Medes, under Astayges, and the Chaldeans, under Nabopolassar, 627 B. C.

NABOTH, an Israelite, who, refusing to sell or exchange his patrimonial vineyard to Ahab, was, by the wicked device of his queen Jezebel, falsely accused of treason and blasphemy, condemned and executed; and his property confiscated. This iniquity drew down the divine vengeance, in a most signal manner, on the whole royal house of Ahab. See AHAB.

NACHEGO, a large lake of the province of Mainas, Quito. It receives the rivers Sungoto and Manguy, and flows by a narrow channel into the Cahuapanas, in lat. 5° 23′ S.

NACHITSCHEVAN, a well built town in the government of Ekaterinoslav, European Russia, situated on the Don. It was built in 1780, with five villages in the neighbourhood, by a colony of Armenians from the Crimea, and is the see of one of their bishops. The town contains about 4000 inhabitants, and the whole colony 14,000. They manufacture silks and cottons, dress leather, and are active in commercial pursuits.

NACHO, or NACO, or Puerto de Cavallos, a settlement of Mexico, in the province of Honduras: 100 miles W. N. W. of Comayagua, and thirty north of Gracias a Dios. Long. 89° 36′ W., lat. 15° N.

NACHOD, a small town of the north-east of Bohemia, on the Metau, twenty miles west of Glatz, in Silesia. Population 1400.

NACKSHIEVAN, or NUCKSHIEVAN, the ancient Artaxata, a place in Persian Armenia. It flourished till the reign of Abbas I., who removed the inhabitants into the interior. It is now reduced to ruins, containing not more than 400 people; but here the prince of Persia often pitches his camp in the military operations against the Russians: eighty-five miles south-east of Erivan.

NADENE, a district, town, and fortress of Hindostan, taken from the Hindoos by sultan Mahmoud of Ghizne, in 1014. The district is mountainous, and is at present governed by a Hindoo prince, tributary to the Seiks, and who, in the year 1806, was plundered by the rajah of Nepaul. The town stands in long. 75° 47′ E., lat. 31° 49′ N., on the eastern bank of the Beyah River.

NA'DIR, *n. s.* Arab. *anadir.* The point under foot directly opposite to the zenith.

As far as four bright signs comprize,
The distant zenith from the *nadir* lies. *Creech.*

The baneful star, that had so long shed its blasting influence in my zenith, for once made a revolution to the *nadir;* and a kind Providence placed me under the patronage of one of the noblest of men, the earl of Glencairn. *Burns.*

NAEFELS, a town of Switzerland, in the canton of Glaris, on the Linth, defended by a castle. Here in 1388 400 brave Swiss repulsed a numerous body of Austrians, under duke Leopold. In memory of this action a chapel was erected on the spot, which was rebuilt in the year 1779: four miles north of Glaris.

NÆNIA, the goddess of funerals at Rome. Her temple was without the gates of the city. The songs which were sung at funerals were also called nænia. They were generally filled with the praises of the deceased; but so unmeaning that the word became proverbial to signify nonsense.

NÆVIUS, a famous augur in the reign of Tarquin, who, to convince the king and the Romans of his preternatural power, cut a flint with a razor, and turned the ridicule of the populace to admiration. Tarquin rewarded his merit by erecting him a statue in the comitium, which was extant in the age of Augustus. The razor and flint were buried near it under an altar, and it was usual among the Romans to make witnesses in civil causes swear near it. This miraculous event of cutting a flint with a razor, though believed by some writers, is treated as fabulous by Cicero, who himself had been an augur.

NÆVIUS (Cneius), a celebrated poet of Campania, who was bred a soldier; but quitted arms for poetry, which he prosecuted with great diligence. He composed a history in verse, and a great number of comedies; but it is said that his first performance of this kind so displeased Metellus, on account of the satyrical strokes it contained, that he procured his banishment from the city; on which he retired to Utica, in Africa, where he died A. A. C. 202. Some fragments of his works are extant.

NÆVUS, a mole on the skin, generally called nævus maternus, or mother's mark. All preternatural tumors on the skin, in the form of a wart or tubercle, are called excrescences; by the Greeks they are called acrothymia; and when they are born with a person they are called nævi materni, or marks from the mother. A large tumor depending from the skin is denominated sarcoma. These appear on any part of the body; some of them differ not in their color from the rest of the skin; whilst others are red, black, &c.

NAFF, a river of Hindostan which separates Bengal from Arracan. The banks of it are covered with wood, interspersed with a few villages, whose inhabitants are chiefly occupied in hunting, or catching wild elephants. The river is of considerable width and depth; but its course has never been surveyed.

NAG, *n. e.* Belg. *nagge;* Goth. *negg;* Teut. *nack.* A small horse; a horse in familiar language; and, in the same sort of language, a paramour.

Your ribauld *nag* of Egypt
Hoists sails, and flies.
Shakspeare. Antony and Cleopatra.

A man of quick and active wit
For drudgery is more unfit,
Compared to those of duller parts,
Than running-*nags* to draw in carts.
Butler.

A hungry lion would fain have been dealing with good horseflesh; but the *nag* would be too fleet.
L'Estrange.

Thy *nags* the leanest things alive,
So very hard thou lovest to drive. *Prior.*

NAGAMANGALAM, a fortress of the Mysore, India. It has a good citadel and two Hindoo temples, together with public granaries and store-rooms. It is said to have been erected 600 years ago, and was taken by the Mahrattas in the war of 1793. Long. 76° 57′ E., lat. 12° 49′ N.

NAGORE, a considerable sea-port of the south of India, in Tanjore. It carries on a good trade with the Americans, Ceylon, and other parts of Asia. Long. 79° 55′ E., lat. 10° 49′ N.

NAGORE, a district of Hindostan, in Ajmeer. It is inhabited chiefly by Hindoos, and tributary to the rajah of Jyenagur. It is celebrated for a fine breed of cattle.

NAGORE, the capital of the above mentioned district, and residence of its rajah, stands in long. 74° 15′ E., lat. 27° N.

NAGORE, or NAGHORE, a town of Bengal, formerly the capital of Berbhoom, was plundered by the rajah of Orissa, in 1244. In the vicinity is a hot spring of medicinal qualities. Long. 87° 20′ E., lat. 23° 56′ N.

NAGPOOR, CHUTA, or Little, a district of Bahar, Hindostan, in the southern extremity of the province, situated principally between 22° and 23° N. lat. It is bounded north by Ramgur and Palamow; south by the independent district of Gangpoor; on the east it has Ramgur and Singhboom; and on the west Palamow and Jushpoor. The ancient Hindoo province of Gundwana also borders this district on the southern, eastern, and western, quarters; a very great proportion of the inhabitants are indeed of the old Hindoo castes.

The surface of the country is hilly, and covered with jungle. Under the Moguls it was a frontier government, partially subdued and occupied by native zemindars, and still continues one of the wildest and least cultivated of the British company's districts. It has no available navigation, though, like other hilly districts, it contains the sources of many streams. The soil is in many parts impregnated with iron; but it is not thought worth the working. The name Nagpoor indicates, according to Mr. Hamilton, that in the opinion of the natives the territory contains diamonds.

NAGPOOR, or NAGAPURA, the Town of Serpents, a large town in the province of Gundwana, the capital of the territories of the Nagpoor Mahrattas. Lat. 21° 9′ N., long. 79° 45′ E. It has been considered as the capital of Berar, but this is a mistake; Berar is an adjoining province, the capital of which is Ellichpoor.

This is a city of modern creation, and, though extensive and populous, but meanly built: the

streets are very narrow and filthy. Ragojee Bhoonslah first fixed the seat of government here by surrounding an insignificant village with a rampart; still it cannot be considered as a fortified town, for it is incapable of resisting an enemy for a single day. It stands on a high fertile plain, and bounded by hills of moderate height to the north-west and south on the rivulet Nag Nuddy. The appearance of the country to the north is that of a forest, with villages and small towns scattered over it. Including the suburbs the population has been taken at 80,000.

The dominions of the rajah, who resides here, comprehend great part of the ancient Hindoo province of Gundwana. In their entire dimensions they border on Bengal, the Northern Circars, and the Nizam's territories in the Deccan; but a large proportion of the country, never having been subdued, pays no tribute, unless when compelled by an enemy. The districts more immediately under his control are those in the vicinity of this capital, i. e. Chooteesghur, Ruttunpoor, and Chandah; together with the strong fortresses of Gawelghur and Narnallah, in Berar.

'The Mahratta Rajahs of Nagpoor being descended from the line of Sarajee,' says Mr. Hamilton, 'pretend to a superiority over the Poonah family, although the first sovereign was Ragojee Bhoonslah, a general in the service of the Peishwa, and despatched by him to effect the conquest of this country about the year 1740. He was succeeded by his son Janojee, who died A. D. 1772. His successor, in 1774, after many contests with the different members of his family, was his nephew, Ragojee Bhoonslah, under the regency of his father, Madhajee Bhoonslah. The latter died many years ago, but the former still continues on the throne. The policy of this state has, in general, been to interfere as little as possible with the contests of the neighbouring potentates, and for many years its internal dissensions furnished its sovereigns with sufficient occupation. Their territories being of great extent, wild, and desolate, presented many obstacles, and few temptations to the cupidity of their neighbours; they consequently remained for many years exempt from external warfare, until, in 1803, the Nagpoor Rajah was induced to join Dowlet Row Sindia in a confederacy against the British government. The signal defeats they sustained from general Sir Arthur Wellesley, at Assaye and Argaum soon compelled the former to sue most urgently for peace, which was granted on the 17th of December, 1803, when a treaty of peace was concluded by general Wellesley on the part of the British government, and Jeswunt Row Ramchunder on the part of Ragojee Bhoonslah; by the conditions of which the latter ceded the province of Cuttack, including the port and district of Balasore. By this treaty he likewise ceded all the territory of which he collected the revenue in conjunction with the Nizam, and fixed his western frontier at the River Wurda, from whence it issues in the Injardy Hills, to its junction with the Godavery. The hills on which the forts of Gawelghur and Nernallah stand, with a contiguous district to the amount of four lacks of rupees, to remain with the rajah; but every thing else south of the Injardy Hills, and west of the Wurda, to be ceded to the British and their allies. On any dispute arising the British engaged to mediate impartially between the Nizam and the Rajah, and the latter agreed never to receive any European into his service without the consent of the British government. During the war possession had been taken of the districts of Sumbhulpoor and Patna in the province of Gundwana; but, in consequence of the amicable relations subsisting between the states, they were restored in 1806; and, in 1809, the rajah again experienced the benefit of the British alliance, by the powerful assistance afforded him against Ameer Khan and his horde of depredators.'

NAGYAG, a town of Transylvania, in the mountainous county of Hunyad, near Deva, remarkable for a mine of Tellurium, containing numerous particles of gold and silver. It is in a most romantic position, and has been wrought since 1740. The depth of the mine is about 160 fathoms. The atmosphere is thought very healthy.

NAGYAG, a river of Hungary, rising in the county of Marmarosch, on the borders of Poland, and falling into the great river Theyss.

NAGY-BANYA, or NEUSTADT, a town of north-east Hungary, the capital of one of the four large mining districts. It has a mint where gold, silver, and copper are coined, a gymnasium, and a court of justice for cases connected with mining. There are smelting works in the neighbourhood, and some rich mines of gold and silver; but the chief part of the ore is refined at other places. The minerals annually produced at the different works in the district are calculated at 9000 or 10,000 lbs. of silver, from 200 to 300 lbs. of gold, 150 tons of copper, 500 or 600 tons of lead, and 200 tons of iron. The workmen, in number from 10,000 to 12,000, and in general Wallachians. Population of the town 4600: ninety-four miles east by north of Debreczin.

NAGY-ENYED, or Strassburgh, the Anna Via of the Romans, a considerable town of Transylvania, situated in a valley near the river Marosch, and the chief place of the county of Lower Weissenburg. It has a Calvinist college and Calvinist, Lutheran, and Catholic churches. The chief employment of the inhabitants is agriculture, there being no manufacture except of turners' and joiners' wares. The remains of a Roman aqueduct are still to be seen. Inhabitants 6000: sixteen miles north of Carlsburg.

NAGY-KAROLY, a large town of the north-east of Hungary, has Catholic, Calvinist, and Greek churches; also a gymnasium taught by Catholics, and some large annual fairs. It belongs, chiefly to count Caroly, a nobleman, who has here a castle with beautiful gardens. In the neighbourhood buffaloes are reared. Population 7600; forty miles east by north of Debreczin.

NAGY-KORESCH, a considerable town of the county of Pest, in the south-west of Hungary, and forty-five miles S. S. E. of the town of Pest. The chief employment of the inhabitants (about 12,000) is in the cultivation of vineyards, the sale of wine, and rearing sheep.

NAHN, a mountainous district of Delhi, Hindostan, bounded on the east by the river Jumna, and situated between the thirtieth and thirty-second degrees of northern latitude. This country contains some extensive plains along the banks of the river; but, being open to the inroads of the Seiks and Nepaulese, it is little cultivated. It is also ruled by several jealous independent chiefs.

NAHN, the capital of the district of this name, is a place of strength, being built of stone, and situated on the top of a mountain. Its chief pays tribute both to the Seiks and the rajah of Nepaul. Long. 77° 7′ E., lat. 30° 41′ N.

NAHOR, the son of Serug, and grandfather of Abraham, the ninth from Noah, was the shortest lived of the patriarchs before Abraham, having lived only 119 years.

NAHOR, the son of Terah, grandson of the preceding, and brother of Abraham. He resided at Haran called also Nahor, in Mesopotamia, and married Milcah, his niece, by whom he had eight sons: viz. 1. Huz or Uz, the progenitor of the Uzites or Ausites, who inhabit the land of Uz, on the west side of the Euphrates, where Job dwelt; 2. Buz, the ancestor of the Buzites; 3. Kemuel, the father of the Kemelites and of the Arameans or Syrians; 4. Chesed, the father of a tribe of Chaldeans; 5. Hazo, the ancestor of the Huzeans, or Chosseans, in Chusistan, in Persia; 6. Pildash, whom Dr. Hyde makes the ancestor of the Persians; 7. Jidlaph; and, 8. Bethuel, the father of Laban and Rebekah. Nahor had also other four sons by his concubine Reumah. Gen. xi.; xxii. 21—24.

NAHUELHUAPI, nahuel a tiger, and huaupi an island, a lake of Chili, formed by the waters which descend from the Chilian Bordellas, and 100 miles in length. It encloses an island called the Island of Tigers, and there is a settlement on the north shore, in long. 70° 40′ W., lat. 41° 22′ 30″ S.

NAHUM, the seventh of the twelve minor prophets, was a native of Elkoshai, a little village of Galilee. The subject of his book is the destruction of Nineveh, which he describes in at once a grand and pathetic manner: his style is bold and figurative, and cannot be exceeded by the most perfect masters of oratory. This prophecy was verified at the siege of that city by Astyages, A.M. 3378, A.A.C. 622.

'The fire, spirit, and sublimity of Nahum,' says Dr. Grey, 'are unequalled. His scenes are painted with great variety and splendor. The exordium of his work, in which he describes the attributes of God, is august; and the preparations for the attack, as well as the destruction of Nineveh, are represented with singular effect. The art with which the immediate destruction of the Assyrians under Sennacherib is intermingled with the future ruin of the empire affords a very elegant specimen of the manner in which the prophets delight to introduce present and distant events under one point of view. The allegorical pictures in this book are remarkably beautiful.

'Nahum is said to have been of the tribe of Simeon; but, amidst a variety of opinions, it is difficult to determine what precise time should be assigned for the period of his existence. Josephus asserts that he 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. The Jews place him so late as the reign of Manasseth. The most probable opinion is, that, though Nahum might have lived in the reigns of both these kings, yet he delivered these prophecies in Judea 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 likewise describes the people of Judah as still in their own country, and desirous of celebrating their festivals. He cannot therefore be supposed to have prophesied before the fourteenth year of Hezekiah, since the expedition of Sennacherib against this prince was in the fourteenth year of Hezekiah's reign; and therefore he probably prophesied between A.M. 3283, when Shalmaneser carried Israel captive into Assyria, and A.M. 3294, when Sennacherib was meditating the destruction of Jerusalem.

'At this period of perplexity and distress,' adds the above writer, 'when the fate of Samaria was present to the apprehensions of Judah; when her own cities had been taken by Sennacherib, and Hezekiah had drained his treasury, and even despoiled the temple, in the vain hope of averting the fury of Sennacherib; then was Nahum raised up in consolation to Judah, and to proclaim destruction 'to him that imagined evil against the Lord.' At this time Sennacherib still continued to send arrogant messages, and blasphemous letters; threatening the destruction of Jerusalem, insulting Hezekiah, and deriding the confidence of his people, who trusted in the Lord. Already had Isaiah been commissioned to send an assurance of protection to Jerusalem; and Nahum conspired with him to promise deliverance to Hezekiah from the Assyrian yoke; and to anticipate with prophetic exultation the appearance of welcome messengers, that should bring good tidings, and publish peace to Judah; who should celebrate her solemn feasts secure from invasion, as her enemy 'was utterly cut off.'

'Nahum afterwards, in his two last chapters, proceeds to foretel the future downfal of the Assyrian empire; renewing those denunciations of wrath which about ninety years before Jonah had utterred against Nineveh, whose repentance was but of short duration; and predicting, in the most descriptive manner, that final destruction which was effected probably by Nabopolasser and Cyaxares, A.M. 3362; but certainly by the Medes and Babylonians, whose confederate forces assaulted the Assyrians unexpectedly, 'while they were folden together as thorns, and while they were drunken as drunkards;' when 'the gates of the river were opened, the palace dissolved,' and an 'over-running flood' assisted the conquerors in their devastation; who took an endless store of spoil of silver and of gold, making an utter end of the place of Nineveh: of that vast and populous city, whose walls were 100 feet high, and capable of admitting three chariots abreast upon them, and fortified with 1500 towers, in walls of 200 feet high. So totally, in-

deed, was this city destroyed, that, in the second century after Christ, not a vestige of it remained to ascertain the spot on which it stood. Its situation has long been a matter of uncertainty and dispute.'

NAIADES, in mythology, inferior deities who presided over rivers, springs, wells, and fountains. The Naiades generally inhabited the country, and resorted to the woods or meadows near the stream over which they presided. They are represented as young and beautiful virgins, often leaning upon an urn, from which flows a stream of water. Ægle was the fairest of the Naiades, according to Virgil. Their name is derived from *ναειν*, to flow. They were held in great veneration among the ancients; and sacrifices of goats and lambs were offered to them, with libations of wine, honey, and oil; sometimes offerings of milk, fruit, and flowers. Their robes (if any, for they are commonly naked) are of a greenish color, with lighter or darker shades, and so transparent as to show the fineness of their skin and shape. They have sometimes, on the ancient gems, flying veils over their heads, like the Auræ or sylphs.

NAIANT, in heraldry, a term used in blazoning fishes, when borne in a horizontal posture, as if swimming.

NAIAS, in botany, a genus of the monandria order, and diœcia class of plants. The male CAL. is cylindrical and bifid; the COR. quadrifid; there is no filament, nor is there any female CAL. or COR.; there is one pistil, and the capsule is ovate and unilocular. Species one, common to the sea-coasts of Europe; stem with triangular spines; leaves narrow, with spinous teeth on each side; flowers axillary, solitary.

NAIL, *n. s.* Sax. nægl; Goth. *nagl;* Swed. Dan. and Teut. *nagel*. The horny substance which defends the human fingers and toes; the talon or claw of a bird or beast: hence, a measure of length of two inches and a quarter (the distance probably from the knuckle to the nail). 'On the nail,' Dr. Johnson says, readily; immediately; without delay. 'I once supposed it from a counter studded with nails, but have since found in an old record, solvere super unguem. It therefore means into the hand.'

My *nails* can reach unto thine eyes. *Shakspeare.*

The meanest sculptor in the' Æmilian square,
Can imitate in brass the *nails* and hair;
Expert in trifles. *Dryden.*

The *nails* of our fingers give strength to those parts in the various functions they are put to; and defend the numerous nerves and tendons that are under them. *Ray.*

We want our money *on the nail*;
The banker's ruined if he pays. *Swift's Poems.*

NAIL, *n. s.* & *v. a.* Sax. nægl. Perhaps from the above. A pin or fastening, generally of metal; a stud or box: to fasten or stud with nails.

And he seide to hem but I see in his hondis the fitchyng of the *nailis*, and putte my fyngir into the place of the *nailis*, and put myn hond into hise side I schal not bileue. *Wiclif. Jon.* 20.

As one *nail* by strength drives out another;
So the remembrance of my former love
Is by a newer object soon forgotten. *Shakspeare.*

For the body of ships, no nation doth equal England, nor for the oaken timber to build them; and we need not borrow iron for spikes or *nails*, to fasten them together. *Bacon.*

The load-stone mines in the shore of India, are so placed in abundance and vigour, that it proves an adventure of hazard to pass those coasts in a ship with iron *nails*. *Browne.*

To the cross he *nails* thy enemies,
The law that is against thee, and the sins
Of all mankind, with him are crucify'd.
Milton.

A beechen pail
Hung by the handle on a driven *nail*. *Dryden.*

He clasped his hand upon the wounded part;
The second shaft came swift and unespyed,
And pierced his hand and *nailed* it to his side.
Id.

For not the desk with silver *nails*,
Nor bureau of expence,
Nor standish well japanned avails
To writing of good sense. *Swift.*

An equivocal word used for the *nail* of the hand or foot, and for an iron *nail* to fasten any thing. *Watts.*

An opera like a pillory may be said
To *nail* our ears down, but expose our head.
Young.

NAILS, in building, &c., are of several sorts. 1. Back and bottom nails, which are made with flat shanks to hold fast and not open the wood. 2. Clamp-nails, for fastening the clamps in buildings, &c. 3. Clasp-nails, whose heads, clasping and sticking into the wood, render the work smooth, so as to admit a plane over it. 4. Clench-nails, used by boat and barge builders, and proper for any boarded buildings that are to be taken down, because they will drive without splitting the wood, and draw without breaking; of these there are many sorts. 5. Clout-nails, used for nailing on clouts to axle-trees. 6. Deck-nails, for fastening of decks in ships, doubling of shipping, and floors laid with planks. 7. Dog-nails, for fastening hinges on doors, &c. 8. Flat-points, much used in shipping, and are proper where there is occasion to draw and hold fast, and no conveniency of clenching. 9. Jobent-nails, for nailing thin plates of iron to wood, as small hinges on cupboard-doors, &c. 10. Lead nails, for nailing lead, leather, and canvas to hard wood. 11. Port-nails, for nailing hinges to the ports of ships. 12. Pound-nails, which are four-square, and are much used in Essex, Norfolk, and Suffolk, and scarcely any where else, except for paling. 13. Ribbing-nails, principally used in ship-building, for fastening the ribs of ships in their places. 14. Rose-nails, which are drawn four-square in the shank, and commonly in a round tool, as all common twopenny nails are; in some countries all the larger sort of nails are made of this shape. 15. Rother-nails, which have a full head, and are chiefly used in fastening rother-irons to ships. 16. Round-head nails, for fastening on hinges, or for any other use where a neat head is required; these are of several sorts. 17. Scupper-nails, which have a broad head, and are used for fastening leather and canvas to wood. 18. Sharp-nails, these have sharp points and flat shanks, and are much used, especially in the West Indies, for nailing soft wood. 19. Sheath-

ing nails, for fastening sheathing-boards to ships. 20. Square-nails, which are used for hard wood, and nailing up wall-fruit. 21. Tacks, the smallest of which serve to fasten paper to wood; the middling for wool-cards, &c., and the larger for upholsterers and pumps. Nails are said to be toughened, when too brittle, by heating them in a fire-shovel, and putting some tallow or grease among them.

Such are some of the various descriptions of nails employed by mechanics in the different arts of life, and, as new arts and new inventions arise from human ingenuity, other kinds of nails will be formed, adapted to the several purposes for which there is a demand. Formerly the nail-maker's process was very tedious, every nail being made by the hand, and each begun and finished by the same individual; it was afterwards discovered in this manufacture, as in many others, that, by a division of labor, and by assigning to different persons the pointing, heading, &c., a greater quantity of work was done by the same number of hands; of course the processes were much simplified and expedited, and the article could be sold on much lower terms.

Within the last five-and-twenty years ingenious mechanics have not only improved the method of manufacturing nails, but have thought it worth their while to secure to themselves the exclusive right of their inventions by obtaining the king's letters patent: of some of these we shall proceed to transcribe an account from the Circle of the Mechanical Arts:—

In the year 1790 Mr. Thomas Clifford, of the city of Bristol, obtained two patents for the manufacture of nails of every kind. The principle on which his first invention is founded was that of making the nails in a die; that is, by having a die or the impression of the nails to be cut into one or more pieces of iron, steel, or other metal; and the iron of which the nails are to be formed is drawn or rolled into the proper form or thickness, and, by a force adapted to the purpose, pressed into a cavity or die, so as to form the nails, either complete or so nearly complete as that they can be finished with a very little labor. This operation may be done in several ways, but the one particularly recommended by Mr. Clifford is by rollers of iron or steel, and worked either by water, steam, wind, horses, &c. The two rollers are to be made of iron and cased with steel, each of the same diameter, and the diameter proportioned to the length and size of the nail intended to be made. Each roller should have one or more cog-wheels, the cogs of one roller to work into those of the other, so that the rollers may both perform the same exact revolution. One half the impress of the nail is to be cut with one roller, the other half in the other, so that the two impressions form a cavity or die of the exact form of the nail, extending the lengthways of the nail on the circumference of the rollers; and as many impressions of the same kind may be cut in the rollers, one at the end of the other, as will complete their circumference, and continue the cavity all round the rollers: the point of one nail joining the head of the next, or the two points and two heads joining each other. The rollers must in this, as in other cases, be made to work very true, and close to each other.

The mode of operation is this: a rod of metal, iron for instance, rolled or drawn to a convenient size, is to be heated, and, while hot, the end of it is put between the rollers, into the cavity or die which forms the impression of the nail. The rollers, being now put in motion, will draw the iron through, pressed into the cavity or die which forms the impression of the nail, the one joined to the other, which must be afterwards separated by means of instruments acting as nippers, shears, chisels, &c. The rollers being made to work very close to each other, where the edge of the nail is formed, will prevent much of the metal from being pressed out on each side of the nail, and what is pressed out may be cut off by instruments adapted to the purpose. Several pairs of rollers may be made to work together, and each pair may have several rows of dies cut on them, so as to form the impression for several strings of nails; and a rod of iron, being put into each of them, will roll out as many strings of nails with one revolution of the rollers. A pair of rollers may also have the greater part of their surface cut with dies, and a flat bar or piece of iron be made to pass between the rollers, so as to form sheet nails; the whole of them connected to one another by thin plates of iron, of which they are composed, and this would require each nail to be cut out or separated from the sheet by proper instruments.

Mr. Clifford's second invention consists, 1. In drawing the iron, or other metal, into a tapering or wedge-like form, according to the length and thickness of the different sizes of nails to be made. 2. The nails are to be cut out of those wedge-like or tapering plates by means of a punch, the face of which is made according to the size, taper, and form of the nail to be cut out; as also, having a hollow bolster, the hollow or aperture of which must also be made of the size and form of the nail, and consequently to fit and receive the punch abovementioned. The punch thus fitted to the bed, and sliding in the frame to keep it steady, will, by a blow or by pressure, cut or force a part of the taper plate into and through an aperture of the bed fitting to it, and by which the nail is formed. This operation is, by the manufacturers of buckles, buttons, &c., generally called cutting out. 3. To form the heads of horse-nails, called rose heads, and others of nearly a similar kind, after the operations of drawing and cutting out, the nail is to be put into a heading tool, which is also called a bed, which bed receives the nail, excepting a small portion, at the thick end of which the head is formed by a punch or die. This die, by a blow or pressure, forms the head as required; and when the nails are made of hard iron, after they are cut in the way described, the thick end is made hot before they are put into the bed or heading tool. Another method adopted in the manufacture of nails is by cutting them out of iron plates of equal thickness, and afterwards to point them either by a hammer or other pressure. 5. In making nails that are of a triangular form, the plate or

strip of iron is pressed or stamped into a die, having impressions cut to the form of such nails, after which they are cut out by a punch.

At about the same period in which the foregoing patents were obtained Mr. William Finch, of Woombourne, in Staffordshire, invented another method of making nails and spikes by machinery, to be worked by steam, &c., by which all manual labor was to be saved. In his specification he describes his power as consisting of one main shaft, caused to revolve in either a horizontal or perpendicular direction by means of a water-wheel, or a steam-engine. Such main shaft will put in motion, by means of cogs and pinion-wheels, other counter-shafts or barrels, on which are fixed arms, &c., and on these are hammers that are worked in either a lift, or tilt manner. He also makes three divisions of hands in the manufacturing of headed-nails, namely, one man, woman, or child, to carry the heated rod to the man, woman, or child, stationed before the hammer, which person, by mere activity, will with one hand not only form the larger size nail, but a far greater number in the same given time: when the third person will, with the same kind of hammer, head and finish a number of the same shanks together, leaving them truer made, and better for use, than the present mode. Also, by a division of hands, will make such nails as require no tool or frame to be headed in; namely, the one to carry the iron from the fire, and the other stationed before the hammer to finish them. In enumerating the advantages and savings of this method, above the others then in use, Mr. Finch says that, by heating many rods in one fire, there will be a saving of coal:—by the more speedy motion of machine hammers, several nails will be made by once heating the rod, whereas, by the old method, only one is made:—again, the motion being regular, independently of strength, a child will be able to make the largest nail or spike. A farther benefit, it is said, will arise to the manufacturer by this mode, viz. that he will have his business done at one place, or under one roof, whereas, by the old method, the workmen sometimes live many miles asunder, and cannot be overlooked. Likewise, by this method, the limbs of those employed in the manufactory will be preserved to the end of life, but, in the old method, it frequently happened that nail-makers were lamed in a few years, and became burdensome to the parish.

Another invention of this kind is that for which a patent was obtained, in 1808, by Messrs. Willmore and Tonk, and which may be thus described:—They take a nail-rod of a size suitable to the size of the nail intended to be manufactured, and applying it to a common screw-press, mounted with proper cutters, cut off from the end of the rod two pieces at once, obliquely across the rod at one place, and directly across it in another. Two studs or stops are set up, which are attached to the press, and are moveable in the direction of the rod, for the purpose of ascertaining the length of the nail; and both studs are adjustable in the cross direction of the rod, so that the obliquity of the cut, according to the kind of nail to be made, is thereby determined, as well as the length of the nail. This is called the first operation.

The second operation is to anneal the pieces so cut off, if the iron should not be sufficiently malleable, which is done in the usual and well-known manner. The third operation is that of heading, which, for clasp-head nails, consists of two parts, one for gathering, and the other for forming the head of the nail. The first part of this operation is performed by putting a piece cut off the rod of iron, as before described, into a pair of clams, leaving as much of the thick end projecting above the clams as is sufficient to form the head. These clams have steel bits let into them with sharp edges, which press only against the two opposite sides of the piece, and which have the effect of two chisels when the punch of the press is brought down upon the piece with considerable force, and raise or gather up iron on each side towards forming the head. The second part of this operation is to put the piece thus prepared into another pair of clams, having bits formed to correspond to the under side of the head; and the punch, having the impression of the upper side of the head engraved or sunk into it, is brought to press strongly upon the head in the clams, and thereby the clasp-head is properly formed.

'For nails intended to have rose-heads, or any other kind of heads, except clasp-heads, the first part of this operation is not absolutely necessary, but the bits, which for clasp-nails must have sharp edges, must for the other kind of nails have blunt edges, to prevent the undercutting. For the second part of this operation, the piece is put either into a pair of clams, or into the tool commonly called a bore, and then pressed with punches, properly engraved or sunk, according to the kind of head wanted. By the first operation, the piece cut off the rod of iron is formed something like a mortise-chisel; the fourth operation is to point it, which is done by putting the piece into a bed of steel, in which is cut a nick or groove, having parallel sides, but the bottom rising towards the end where the point of the nail is to be formed. The punch is shown in the specification, and the end which presses upon the point of the nail is made to project farther than the other part, so as to meet the corresponding part of the bed when the punch is brought upon the nail. The groove or nick in the bed should be just wide enough to receive the piece easily, but prevent it from twisting when the impression is made. The piece is put twice into the nick; once with the chisel, the end lying horizontal, and the next turned a quarter round, to press the chisel edge into a pointed form. If the nails, by the strong pressure which is necessary in this operation, should become too hard to clench, they anneal them in the ordinary way, which may be called the fifth operation. The third, fourth, and fifth operations above described are applied to nails, or pieces cut off from sheet or rolled iron in the ordinary way; but as they, in consequence of the fifth operation, which is necessary to give them the quality of clenching, are apt to be too soft to drive well, a sixth operation is applied, viz. quenching them, when red hot, in water or

other proper fluid, which gives them stiffness enough to drive without destroying the quality of clenching. The figures attached to the specification show, 1. A pair of clams, with bits or dies let into them, which can be renewed from time to time with more ease, and at less expense, than by the usual method. These bits are proper for the first part of the third operation. 2. A pair of bits, or dies, proper for making either rose-heads or flat-heads. 3. A pair of bits, or dies, proper for the second part of the third operation for clasp-head nails. 4. A view of the common screw-press, in which is shown the side-pin, or screw, by which the clams are firmly pressed together at the time the punch is pressed down upon the nail. This pin, or screw, is generally worked by the foot, by means of a lever connected with a treadle, while the hand applies its force to the handle of the fly; but to the head of the main screw is fixed a portion of a pulley (or a whole one), to which is attached a rope, chain, belt, or other connecting pliable material, which flying round the edge of another pulley fixed to the frame of the press, and standing vertically descends, and is attached to the moveable end of the treadle; and on this treadle is placed a weight, heavy enough to press the clams together with sufficient force. By means of the latter described machinery, which is the only part claimed by the patentees as their invention, the operation of pressing is performed by the action of the hand only, and is found very convenient.'

We may mention, in connexion with this subject, an improvement in the manufacture of bagging for packing of nails, adopted by Mr. Benjamin Haden, of Sedgley, in Staffordshire. He takes for his warp, hurds or tow, prepared in the usual way, such as are in common use in the manufacture of nail-bagging, but for his wefts or woofs he takes old ropes, or junk, of any dimensions; and, after untwisting or dividing the threads or filaments, he winds it into bobbins or quills, and then they become fit for the shuttle, when he weaves them with the common warp in the common way. The materials just mentioned are said to be peculiarly adapted to give strength and durability to the article, and are therefore perfectly fit for the bagging of nails. The yarn, of which ropes are generally made, particularly king's ropes, is spun from the choicest hemp, and strongly impregnated with tar. The threads taken from the middle of such ropes, not having been exposed to the weather, or to friction, are as sound and as strong as when originally used. The tarry matter, with which the threads are impregnated, renders them peculiarly advantageous in the manufacture of sacks that require great strength, and substance, the weft being composed of these threads, finely spun, which are good and strong, tenacious, and not liable to rent or perish with the wet, nor to burst in carriage, to the great loss of those concerned.

The nail-makers of the United States have carried the invention of cutting nails by machinery to great perfection: greater, as some have thought, than has been exhibited in this country. The American secretary to the treasury, published in 1810 some letters on the manufactures of that country, by which it appears that they then had machines which performed the cutting and heading at one operation, and with such rapidity, that one machine furnished upwards of 100 nails per minute. 'The importance of nail machinery in Massachusetts,' he says, 'and of all that relates to rolling and slitting-mills, with which nail machinery is immediately connected, requires that a particular account should be given of them. In old countries nails are forged, here they are cut; and it is curious to trace the progress of American genius through the various steps of this invention. Twenty years ago, some men, now unknown, and then in obscurity, began by cutting slices out of old hoops, and by a common vice, griping these pieces, headed them with several strokes of the hammer: by progressive improvements slitting-mills were built, and the shears and the heading-tools were perfected, yet much labor and expense were requisite to make nails. In a little time Jacob Perkins, Jonathan Ellis, and a few others, put into execution the thought of cutting and of heading nails by water, but, being more intent upon their machinery than upon their pecuniary affairs, they were unable to prosecute the business. At different times other men have spent fortunes in improvements; and it may be said with truth, that more than 1,000,000 of dollars have been expended; but at length these joint efforts are crowned with complete success, and we are now able to manufacture at about one-third of the expense that wrought nails can be manufactured for, and nails which are superior to them, for at least three-fourths of the purposes to which nails are applied, and for most of those purposes, they are full as good. The machines made use of by Odiorne, those lately invented by Jonathan Ellis, and a few others, present very fine specimens of American genius. To northern carpenters it is well known, that in almost all instances it is unnecessary to bore a hole before driving a cut nail; all that is requisite is, to place the cutting edge of the nail across the grain of the wood; it is also true, that cut nails will hold better in the wood. These qualities are, in some rough building works, worth twenty per cent. of the value of the article, which is equal to the whole expense of manufacturing. For sheathing and drawing, cut nails are full as good as wrought nails; only in one respect are the best wrought nails a little superior to cut nails, and that is where it is necessary they should be clenched. The manufacture of cut nails was born in our country, and has within its bosom advanced through all the various stages of infancy to manhood; and, no doubt, we shall soon be able, by receiving proper encouragement, to render them superior to wrought nails in every particular. The principal business of rolling and slitting-mills is, rolling nail-plates. they also serve to make nail rods, hoops, tires, sheet iron, and sheet copper; in this State we have not less then twelve.'

These mills could roll and slit 7000 tons of iron a-year: they now, it is presumed, roll and slit each year about 3500 tons, 2400 tons of which, probably, are cut up into nails and brads of such a quality, that they are good substitutes for hammered nails; and, in fact, have the pre-

ference with most people for the following reasons, viz. on account of the sharp corner and true taper with which cut nails are formed; they may be driven into harder wood, without bending or breaking, or hazard of splitting the wood, by which the labor of boring is saved, the nail, one way, being of the same breadth or thickness from head to point.

NAILS, in anatomy. See ANATOMY.

NAILS, in Hebrew antiquity, were made use of by the ancient Jews for cancelling bonds: and the ceremony was performed by striking them through the writing. This seems to be alluded to in Scripture, where God is said by our crucified Saviour to have 'blotted out the hand-writing of ordinances that was against us, and to have taken it out of the way, nailing it to his cross.' Col. ii. 14.

NAIN (Lewis Sebastian de), one of the most learned and judicious critics and historians France has produced. He was the son of a master of the requests, and born at Paris in 1637. At ten years old he went to school at Port Royal, and became one of the best writers of that institution. Sacy, his intimate friend, prevailed with him in 1676 to receive the priesthood; which his humility would not suffer him to aspire to. Buzanval, bishop of Beauvois, wished to have him for his successor; but Nain was regardless of dignities. He died in 1698, aged sixty-one. His principal works are, 1. Memoirs on the first Six Ages of the Church, 16 vols. 4to. 2. The History of the Emperors, 6 vols. 4to. These works are deduced from original sources, and composed with the utmost fidelity.

NAIN, an ancient city of the tribe of Issachar, in Galilee, at the foot of Mount Hermon, on the north. Near the gates of this city our Saviour restored to life the only son of a widow. At present Nain is only a hamlet, inhabited by Christians, Mahometans, and Jews.

NAIRN, one of the smaller counties of Scotland, formerly included in the province of Moray, with the exception of the detached portion, Ferintosh, now completely surrounded by Ross-shire. It is bounded on the north by the Moray frith; on the east and south by Morayshire; and on the west by Inverness-shire. It is from sixteen to eighteen miles in length, and about ten in its greatest breadth. Along the coast, from one to six miles in breadth, and the valley of the river Nairn, is extremely well cultivated and productive; but the rest of the county is bleak and sterile. The river Nairn descends from the hills of Inverness-shire, and, proceeding north-east, falls into the frith at the county town. On its banks are several picturesque old castles, and various handsome modern seats. Amongst the former are the castles of Kilravock and Cawdor, both being surrounded by extensive plantations. In the vicinity of Cawdor is the most northern forest of oak, and containing some of the finest and largest trees in the kingdom. The river Findhorn intersects the southern part of the county. From the Nairn eastward, the soil is a light loam on a gravelly bottom. Westward it approaches to clay. In the hilly district, crossed by the Findhorn, there is but little arable land, it being for the most part moors, well stored with grouse. The county is computed to contain 128,000 acres, of which there are in natural wood about 4000, and under plantations upwards of 6000. There are several small lakes; no minerals of any importance; but abundance of excellent freestone for building; and a great extent of excellent marl. Nairnshire contains the royal burgh of Nairn, the county town; and two villages, viz. Auldearn and Calder, of inferior note; but the former is memorable as the scene of the victory obtained by the celebrated marquis of Montrose in 1645. It is divided into four parishes, and sends a member to parliament alternately with Cromarty.

NAIRN, a royal borough and county town of Scotland, supposed to be the Tuæsis of Ptolemy, situated at the mouth of the river. The harbour, which opened in the Murray Frith, is now choked up with sand; and the commerce of the town is inconsiderable. It has a charter dated 1589, by James VI., renewing one granted by Alexander I., and confirmed by Charles II., vesting its government in a provost, three bailies, dean of guild, treasurer, and eleven councillors. It had a castle, which was taken by the Danes in the reign of Malcolm I., and the keepers cruelly used. Its ruins are now covered by the sea. It joins with Inverness, Forres, and Fortrose, in electing a member of parliament for these boroughs.

NAISSANT, in heraldry, is applied to any animal issuing out of the midst of some ordinary, and showing only his head, shoulders, fore-feet, and legs, with the tip of his tail; the rest of his body being hid in the shield, or some charge upon it; in which it differs from issuant, which denotes a living creature arising out of the bottom of any ordinary or charge.

NA'KED, *adj.* } Sax. nacoɒ; Swed. *nacot;*
NA'KEDLY, *adv.* } Belg. *naakt;* Teut. *nacket.*
NA'KEDNESS, *n. s.* } The eastern languages have, according to Mr. Thomson, Turk. and Tart. *nogu*; Hind. *nigut.* Without clothes or covering; bare; hence, unarmed; defenceless; unprepared; and (metaphorically) plain; evident; simple; wanting the usual or necessary additions: the adverb and substantive follow each of these senses:

Spies, to see the *nakeaness* of the land are ye come.
Genesis.

Not that God doth require nothing unto happiness at the hands of men, saving only a *naked* belief, for hope and charity we may not exclude; but that without belief all other things are as nothing, and it is the ground of those other divine virtues.
Hooker.

Had I but served my God with half the zeal
I served my king, he would not in mine age
Have left me *naked* to mine enemies. *Shakspeare.*

The truth appears so *naked* on my side,
That any purblind eye may find it out. *Id.*

Why seekest thou to cover with excuse
That which appears in proper *nakedness*? *Id.*

A philosopher being asked in what a wise man differed from a fool? answered, send them both *naked* to those who know them not, and you shall perceive.
Bacon.

So blinds the sharpest counsels of the wise
This overshadowing Providence on high,

And dazzleth all their clearest-sighted eyes,
That they see not how *nakedly* they lie. *Daniel.*

He pitying how they stood
Before him, *naked* to the air, that now
Must suffer change;
As father of his family, he clad
Their *nakedness* with skins of beasts. *Milton.*

Nor he their outward only, with the skins
Of beasts; but inward *nakedness*, much more
Opprobrious! with his robe of righteousness
Arraying, covered from his Father's sight. *Id.*

Though several single letters, *nakedly* considered, are found to be articulations only of spirit or breath, and not of breath vocalized; yet there is that property in all letters of aptness to be conjoined in syllables. *Holder.*

Ungrateful men!
Behold my bosom *naked* to your swords,
And let the man that's injured strike the blow.
Addison.

I entreat my gentle readers to sow on their tuckers again, and not to imitate the *nakedness*, but the innocence of their mother Eve. *Id.*

Thou to be strong must put off every dress,
Thy only armour is thy *nakedness*. *Prior.*

NALDI (Sebastiano), a famous Italian buffo singer in London, in the early part of this century. This particular branch of singing was considered his forte. He met his death in Paris in 1819, by the explosion of a steam kitchen apparatus for cooking.

NALL, *n. s.* Perhaps from nail. An awl, such as collarmakers or shoemakers use.

Whole bridle and saddle, whitleather and *nall*,
With collars and harness. *Tusser.*

NALOES, a half-civilised people of Western Africa, inhabiting the banks of the Rio Nunez. They have made considerable progress in agriculture, and cultivate rice, indigo, and cotton. They manufacture also a species of cotton cloth in much request in the interior.

NAME, *n. s.* & *v. a.* / NAME'LESS, *adj.* / NAME'LY, *adv.* / NAME'SAKE, *n. s.* Sax. nama; Goth. *nam*; Mæs. Goth. *namo*; Swedish *namn*; Belgic *næm*; Teut. *name*. Appellation; discriminative title or term of description; hence, renown; fame; celebrity; authority or power delegated; imputation; appearance; person named: to name, to discriminate by some appellation or title; specify; entitle; utter; mention: namely means, specifically; particularly: namesake, one that has the same name with another.

Let my *name* be *named* on them.
Gen. xlviii.

Bring me him up whom I shall *name*.
1 *Sam.*

His *name* was called Jesus, which was so *named* of the angel before he was conceived. *Luke* ii. 21

There is a friend which is only a friend in *name*.
Ecclus.

Accustom not thy mouth to swearing: neither use thyself to the *naming* of the Holy One. *Id.*

Thou hast had seven husbands; neither wast thou *named* after any of them. *Tob.* iii. 8

It can be to nature no injury, that of her we say the same which diligent beholders of her works have observed; *namely*, that she provideth for all living creatures nourishment which may suffice. *Hooker.*

What's in a *name*? That which we call a rose,
By any other *name* would smell as sweet.
Shakspeare.

What men of *name* resort to him?
—Sir Walter Herbert, a renowned soldier;
And Rice ap Thomas with a valiant crew,
And many others of great *name* and worth.
Id.

In the *name* of the people,
And in the power of us the tribunes, we
Banish him. *Id. Coriolanus.*

I mention here a son of the king's whom Florizel I now *name* to you; and with speed so pace
To speak of Perdita. *Shakspeare.*

Did my father's godson seek your life?
He whom my father *named*? your Edgar. *Id.*

Which of these sorrows is he subject to?
—To none of these, except it be the last;
Namely, some love that drew him oft from home.
Id.

Visit eminent persons of great *name* abroad; to tell how the life agreeth with the fame. *Bacon.*

The council making remonstrances unto queen Elizabeth of the continual conspiracies against her life; and, *namely*, that a man was lately taken, who stood ready in a very suspicious manner to do the deed; advised her to go less abroad weakly attended. But the queen answered, that she had rather be dead, than put in custody. *Id.*

On the cold earth lies the unregarded king,
A deadless carcass, and a *nameless* thing.
Denham.

The king's army was the last enemy the west had been acquainted with, and had left no good *name* behind. *Clarendon.*

Thus was the building left
Ridiculous, and the work Confusion *named*.
Milton.

Those whom the fables *name* of monstrous size.
Id.

And highly wicked surely must that practice be, whereby we grow *namesakes* to him, *Barrow.*

Nor does the dog-fish at sea, much more make out the dog of land, than that his cognominal, or *namesake* in the heavens. *Browne's Vulgar Errours.*

The milky way,
Framed of many *nameless* stars. *Waller.*

Thousands there were in darker fame that dwell,
Whose *names* some nobler poem shall adorn.
Dryden.

They list with women each degenerate *name*,
Who dares not hazard life for future fame. *Id.*

These shall be towns of mighty fame,
Though now they lie obscure, and lands without a *name*. *Id.*

When Ulysses with fallacious arts,
Had forged a treason in my patron's *name*,
My kinsman fell. *Id. Æneid.*

If every particular idea that we take in should have a distinct *name*, *names* must be endless.
Locke.

Let any one *name* that proposition whose terms or ideas were either of them innate. *Id.*

For the excellency of the soul, *namely*, its power of divining in dreams; that several such divinations have been made, none can question. *Addison.*

One author is a mole to another: it is impossible for them to discover beauties; they have eyes only for blemishes: they can indeed see the light, as is said of their *namesakes*; but immediately shut their eyes. *Id.*

Little credit is due to accusations of this kind when they come from suspected, that is, from *nameless* pens. *Atterbury.*

The husband
Bids her confess; calls her ten thousand *names*;
In vain she kneels. *Granville.*

Thy reliques, Rowe, to this fair shrine we trust
And sacred, place by Dryden's awful dust;
Beneath a rude and *nameless* stone he lies,
To which thy tomb shall guide enquiring eyes.
Pope.

Like the watermen of Thames
I row by, and call them *names*.
Swift's Miscellanies.

Such imagery of greatness ill became
A *nameless* dwelling, and an unknown *name*. *Harte.*

Bartolus is of great *name*; whose authority is as much valued amongst the modern lawyers, as Papinian's was amongst the ancients. *Baker.*

By night, by day, a-field, at hame,
The thoughts o' thee my breast inflame;
And aye I muse and sing thy *name*,
I only live to love thee. *Burns.*

Names, Proper, are those which represent some individual thing or person, so as to distinguish it from all other things of the same species; as Socrates, which represents a certain philosopher. Proper names are either called Christian, as being given at baptism; or surnames: the first imposed for distinction of persons, answering to the Roman prænomen; the second for the distinction of families, answering to the nomen of the Romans, and the patronymicum of the Greeks. Originally every person had but one name; as among the Jews, Moses, Joshua, &c.; among the Egyptians, Busiris; among the Chaldees, Ninus; the Medes, Astyages; the Greeks, Diomedes; the Romans, Romulus; the Gauls, Brennus; the Germans, Ariovistus; the Britons, Cassibelan; the Saxons, Hengist, &c. And thus of other nations, except the savages of Mount Atlas, whom Pliny and Marcellinus represent as anonyme or nameless; though this is hardly credible. The Jews gave the name at the circumcision, viz. eight days after birth; the Romans, to females the same day, to males the ninth, at which time they held a feast, called nominalia. Since Christianity has obtained, most nations have followed the Jews, baptising and giving the name on the eighth day after the birth; except the ancient English, who baptised and gave the name on the birth-day. The first imposition of names was founded on different views, among different people; the most common was to mark the good wishes of the parents, or to entitle the children to the good fortune a happy name seemed to promise. Hence, Victor, Castor, Faustus, Statorius, Probus, &c. Accordingly, we find such names, by Cicero called bona nomina, and by Tacitus fausta nomina, were first enrolled in the Roman musters; first called to serve at the sacrifices, in the foundation of colonies, &c.—And, on the contrary, Livy calls Atrius Umber, abominandi ominis nomen: and Plautus has a similar remark of a person named Lyco, i. e. greedy wolf: hence, Plato recommends it to men to be careful in giving happy names; and the Pythagoreans taught that the minds, actions, and successes of men, were according to their names, genius, and fate. Thus Panormitan, ex bono nomine oritur bona præsumptio; and the common proverb, Bonum nomen bonum omen. Abbe Barthelimi says, that the greater part of names found in Homer are marks of distinction. They were given in honor of the qualities most esteemed in the heroic ages. From the word polemos, which signifies war, have been formed Tlepolemus and Archeptolemus, the names of two heroes mentioned in the Iliad. The former signifies able to support, and the latter able to direct the labors of war. From thoes, swift, are derived, Alcathous, Panthous, Perithoes, &c. From nous, mind or intelligence, come Astynous, Arsinoe, Autonoe, &c. From medes, counsel, Agamedes, Eumedes, Lycomedes, Thrasymedes; and from clios, glory, Amphicles, Agacles, Iphicles, Patroclus, Cleobulus, &c. Hence Camden takes it for granted, that the names, in all nations and languages, are significative, and not simple sounds for mere distinction sake. Thus among the Turks, Abdalla signifies God's servant; Soliman, peaceable; Mahomet, glorified, &c.; and the savages of Hispaniola, and throughout America, who, in their languages, name their children Glistering Light, Sun Bright, Fine Gold, &c.; and they of Congo, by the names of precious stones, flowers, &c. Porphyry notes that the barbarous names, as he calls them, were very emphatical, and very concise; and accordingly it was esteemed a duty to be φηρωνυμοι, or sui nominis homines; as Severus, Probus, and Aurelius, are called sui nominis imperatores. It was usual at giving names to wish the children might discharge their names: thus when Gunthrum, king of France, named Clotharius at the font, he said, Crescat puer, et hujus sit nominis executor. The ancient Britons, Camden says, generally took their names from colors, because they painted themselves; which names are now lost, unless they remain among the Welsh. When they were subdued by the Romans, they took Roman names, some of which still remain corrupted: though the greatest part became extinct upon the admission of the Anglo-Saxons, who introduced the German names, as Cridd, Penda, Oswald, Edward, &c.—The Danes too, brought with them their names; as Sweyne, Harold, Canute, &c. The Normans, at the conquest, brought in other German names, as originally using the German tongue; such as Robert, William, Richard, Henry, Hugh, &c., as the Greek names, Aspasius, Boethius, Symmachus, &c., were introduced into Italy upon the division of the empire. After the conquest, the English, who had ever been averse to foreign names, as deeming them unlucky, began to take Hebrew names; as Matthew, David, Sampson, &c. The various names anciently or at present obtaining among us, from what language or people soever borrowed, are explained by Camden in his Remains. The popes uniformly change their names at their exaltation to the pontificate; a custom first introduced by pope Sergius, whose name till then, says Platina, was Swinesnout. But Onuphrius refers it to John XII. or XIII. and gives us a reason for it, that it was done in imitation of St. Peter and St. Paul, who were first called Simon and Saul. Among the ancients, those deified by the heathen consecrations had new names given them; as Romulus was called Quirinus; Melicertes, Portumnus, &c. New names were also given in adoptions, and sometimes by testament: thus L. Æmilius, adopted by Scipio, took the name of Scipio

Africanus; and thus Augustus, who at first was called C. Octavius Thurinus, being adopted by Caius Julius Cæsar, took the name of Caius Julius Cæsar Octavianus. Names were also changed at enfranchisements into new cities. Thus Lucumo, at his first being made free of Rome, took the name of Lucius Tarquinius; and slaves, when made free, usually assumed their masters' names. Those called to the equestrian order, if they had base names, were always new named, nomine ingenuorum veterumque Romanorum. And, among the primitive Christians, it was the practice to change the names of the catechumens; thus the renegado Lucianus, till his baptism, was called Lucius. About the middle of the fifteenth century it was the fancy of the wits and learned men of the age, particularly in Italy, to change their baptismal names for classical ones. Among the rest Platina the historian at Rome, who, not without a solemn ceremonial, took the name of Callimachus instead of Philip. Pope Paul II., who reigned about that time, was suspicious and illiterate. He had no idea that persons could wish to alter their names unless they had some bad design, and actually scrupled not to employ imprisonment and other violent methods to discover the fancied mystery. Platina was most cruelly tortured on this frivolous account; he had nothing to confess; so the pope, after endeavouring in vain to convict him of heresy, sedition, &c., released him after a long imprisonment.

NAMPTWICH, or NANTWICH, a market town of Cheshire, situated on the Weever, fourteen miles south-east of Chester, and 164½ from London. It lies in the Vale Royal, and is one of the largest and best built towns in the county, the streets being very regular, and adorned with many gentlemen's houses. The inhabitants have three fairs, and a large market on Saturday for corn and cattle; and, as it is a thoroughfare to Ireland, they have a good trade in cheese and fine white salt, which are made to the greatest perfection; and in shoes sent to London. It is governed by constables, who are guardians of the salt springs. It is divided into equal parts by the Weever, which is not navigable farther than Winsford bridge. The Chester canal terminates in a handsome basin near this place. In this town were several religious foundations, now no more. The church is a handsome building in the form of a cross, with an octangular tower in the middle. This town appears to have been one of the chief salt works of the Romans, and is, by Ravenna, called Salinis. The salt springs are thirty miles from the sea, and lie mostly on the banks of the river Weever. Large mines of rock salt were also discovered here in the beginning of the eighteenth century, which, with their pillars and crystal roof, extend over several acres, affording a very pleasing and picturesque appearance.

NAMUR, an important inland province of the Netherlands, bounded by the French frontier, and by the Belgic provinces of Hainault, South Brabant, and Liege. Its superficial extent is about 920 square miles, of which the surface is hilly, but not unfruitful, and the climate temperate. It is watered by the Maese, the Sambre, the Lesse, and the Homme; and stretches on the south into the forest of Ardennes. The agricultural productions are corn, potatoes, hops, tobacco, and fruit; the minerals, iron, lead, some copper, coal, and a fine marble. These furnish manufactures of iron, copper, paper, leather, and woollens; and the province sends two members to the states-general. It belongs to the sixth military division, under the jurisdiction of the high court of Liege. Before the French revolution, the greater part of the province, containing about 90,000 of the population, belonged to Austria, and the remainder to France; but in 1794 the whole was overrun by the French, and then constituted for twenty years, with the addition of part of Luxemburg, the department of the Sambre and Meuse. The part formerly belonging to Austria was, in 1814, incorporated with the kingdom of the Netherlands; and next year, after the battle of Waterloo, and the farther cessions by France, the French portion was added to it. Population 115,000. It is divided into three districts.

NAMUR, a well-built town of the Netherlands, the capital of the foregoing province, is situated between two eminences, at the conflux of the Sambre and Maese. Its population, said to have once approached to 30,000, does not at present much exceed half that number. The houses are in general of a blue stone, having red and black veins; and the streets wide and clean. The town is defended by a citadel, built on the summit of a high craggy rock, and once thought nearly impregnable. It contains a fine cathedral, and a church of the Jesuits; the former being a specimen of superior modern, and the latter of ancient architecture. From the vicinity of metal and coal mines, large manufactures of fire-arms, swords, knives, and scissars, are conducted here; brass founding, &c. Leather, paper, thread, and tobacco, are also fabricated.

Namur has often changed its masters. The castle and town were besieged and taken by the French under the duke of Luxemburg, in 1692; bombarded and retaken in 1695 by king William III., in the sight of an army of 100,000 French, and though there were 60,000 men in garrison. Namur was ceded to the house of Austria in 1713, but taken by the French in 1746; and restored by the treaty of Aix-la-Chapelle. On the 2nd December, 1792, it was taken by the French republicans, under general Valence; but they were forced by the allies to evacuate it in 1793. On the 16th July 1794, however, general Beaulieu, finding it no longer tenable, left it with only 200 men, who surrendered it next day, with a great quantity of artillery and stores, to the French: and it was annexed to France until the general arrangements of 1814. In June 1815 it was the scene of an obstinate conflict between the Prussians and the French, under general Grouchy, on his retreat from the battle of Waterloo. Population about 18,000. Thirty miles south-west of Liege. Long. 4° 51′ 7″ E., lat. 50° 28′ 30″ N.

NANCOWRY, one of the Nicobar Islands of the bay of Bengal. It forms, with two other islands, a very capacious and secure bay. The best entrance is on the east, the western being

only 100 fathoms wide, and the current, in tide-time, setting through it with great force. The soil of the islands is fertile, and produces a great quantity of cocoa nuts. The inhabitants are a civil quiet race of Mahometans. They raise a number of poultry, which, with the fruits of the islands, they barter for cloth, cutlery, tobacco, &c. The Danes had once a small missionary settlement here; but it has been for some time abandoned. Long. 93° 43′ E., lat. 7° 57′ N.

NANCY, a large, rich, and handsome town of France, the principal place of the prefecture of the same name, in the department of the Meurthe. A royal court is held here for the departments of the Meurthe, the Meuse, and the Vosges; there are also a lower court of judicature, a board of trade and manufactures, a central agricultural society, an academy of sciences and belles lettres, a university academy, a royal forest school and college, a free drawing school, and a faculty of medicine, midwifery, and botany. It is a bishopric and a post-town with 30,000 inhabitants.

This town stands in a charming situation, at the foot of the Vosges Mountains, and on the borders of a fine plain about a mile and a half from the left bank of the Meurthe. It is generally well-built, and is divided into the Old and the New towns; the latter is very magnificent, and most of it was erected by Stanislaus, the ex-king of Poland. The streets are broad and straight, with handsome houses; the public edifices are grand, the squares large, and adorned with fine fountains, and the walks delightful. The Place Royal especially is very beautiful; the Hotel de Ville, one of the finest buildings in France, occupies one of its sides; two of the others are intersected in the centre by two great streets, that terminate at opposite gates of the city, built in the form of triumphal arches. Near the walls is a mineral spring of some celebrity. Nancy was not built before the eleventh century; formerly it was fortified, and was taken in the year 1475 by Charles the Rash, duke of Burgundy, who was obliged to evacuate it the following year; but, a little time after, that prince besieged it again, and in 1477 lost his life under its walls. In 1633 Louis XIII. and cardinal Richelieu besieged and took it; and Louis XIV. in 1661 demolished all its fortifications, with the exception of the citadel, which is still standing. Callot, the celebrated engraver; Palissot; Madame de Graffigny; the poet Mollevaut; St. Lambert, a distinguished poet and philosopher; lieutenant general Drouot, and Pixèrécourt, the dramatist, were born in this town.

The inhabitants carry on manufactures of embroidery of all sorts, cloths, woollen stuffs, hats, lace, paper-hangings, oils, candles, liqueurs, chemicals, iron and copper goods. There are also numerous cotton-spinning factories, dye-houses, tan-yards, and curriers' shops. The trade consists in the above articles, together with corn, wine, brandy, &c. The public institutions and buildings are, the library, containing 23,000 volumes; the museum, with its valuable collections; the cathedral; the government-house; the prefect's palace; the exchange; the assembly-room; the church of Bousecours, which contains the tomb of Stanislaus in white marble; the masterpiece of Girardon; the old chateau of the princes of Lorraine; the barracks; the Bourbon race-ground; the departmental nursery; and the botanical garden, containing more than 4000 indigenous and exotic plants. This town is forty-three miles south of Metz, 111 west of Strasburg, and 253 east of Paris.

NANDAPRAYAGA, a place of pilgrimage in Northern Hindostan, the most northern of all the places of Hindoo worship, in the province of Serinagur, situated at the confluence of the Alacananda with the Nandacni, a small river which flows from the south 30° E. Lat. 30° 22′ N., long. 79° 22′ E. There was formerly a temple on the spot; but it has been suffered to go to decay; and nothing but a heap of loose stones now invites the adoration of the pilgrims.

NANDERE, a small province of the Deccan, Hindostan, bounded on the north by Berar, on the south by Hyderabad and Beeder, on the east by Gundwana, and on the west by Aurungabad. The soil is fertile and well watered, capable of supporting a much greater population than it does at present; the whole number not exceeding half a million, of whom about one-tenth are Mahometans. The province has long been subject to the Nizam's family. The principal towns are Nandere, Candhar, Balcundah, and Nirmuhl.

NANGASACKI, an important sea-port of Japan, on the western extremity of the island of Ximo. Here alone are Europeans permitted to trade with Japan, and under severe restrictions. They are confined to the island of Desima, only 600 feet long and 120 broad, immediately adjoining to the town; and the Dutch are at present the favored power. At low water this island is separated from the rest of the town only by a ditch; but at high water it assumes the full insular appearance. It has two gates, one of which, looking to the town, is always well guarded and locked at night; the other, looking to the harbour, is open only when vessels are taking in, or discharging, their cargoes. The harbour is surrounded by mountainous shores, and is three miles broad by one in length, with depth for the largest ships over a muddy bottom; the rise of tide is considerable. The town is entirely open, the streets winding, with canals to receive the waters that descend from the mountains that rise all round the city; each street has a gate at each end, which is shut at night, and is sixty fathoms long: the number of houses is about 1000. Dutch Town, on the island Desima, is built lengthways, and contains some large fire-proof store-houses. The other houses are mean and have paper windows. There is a large house for the Japanese interpreters, and another for the Ottonas, an officer who reports all that passes here to the governor. The Dutch company pay fifteen per cent. and private traders seventy-five per cent. on all goods imported. No strangers are allowed to reside in Nangasacki. Near the shore are five large wooden houses, or rather sheds, in which the imperial junks, or men of war, are kept until ready to be launched. The goknia, or prison, is composed of 100 separate huts of different sizes and accommodations. The best buildings are the palaces of the

two governors, and those of other princes and grandees; there are sixty-two temples built on eminences. Long. 130° 12′ E., lat. 32° 48′ N.

NANI (John Baptist), a noble Venetian historian, born in 1616. His father was procurator of St. Mark, and ambassador from Venice to Rome. Pope Urban VIII. noticed the talents of young Nani. He was admitted into the college of senators in 1641, and was soon after nominated ambassador in France. He procured considerable succours for the war of Candia against the Turks; and became, after his return to Venice, superintendant of the war office and of finances. He was afterwards ambassador to the empire; in which station he rendered great services to his country. He was again sent into France in 1660 to solicit fresh succors for Candia; and on his return was appointed procurator of St. Mark. He died November 5th, 1678, aged sixty-three. The senate had appointed him to write the history of the republic; which he executed to the satisfaction of the Venetians, although the work was less admired by foreigners. In writing his history of Venice he has given a general history of his times, especially with respect to the affairs of the French in Italy. This history, which is continued from 1613 to 1671, was printed in Venice, in 2 vols. 4to, in 1662 and 1679.

NANKA Islands, three small islands of the Eastern Seas, on the west coast of the island of Banca, supposed to be of recent formation. Iron ore and blood stone are found here; and they produce wood and excellent water, for which they are frequently visited. Bears, monkeys, and wild hogs are also found on them. Long. 105° 41′ E., lat. 2° 22′ S.

NANKANG, a city of China, of the first rank, in Kiangsee. In the interior, however, it is very poor, and contains little beside shops for the common necessaries of life. But its former importance is clear from the ranges of pyloos or statues, richly sculptured, running along the streets; a pagoda of seven stories in good repair; and several halls of Confucius, distinguished by tablets bearing the names of departed worthies and idols. The city is situated on a branch of the Poyang Lake, bearing the same name. On a mountain near is a magnificent cascade. Long. 115° 39′ E., lat. 29° 33′ N.

NANKEEN, a well-known cotton stuff, deriving its name from the ancient capital of China. According to Van Braam, it is manufactured in the south-east of the province of Kiang-nam upon the sea shore. The color of nankeen is natural, the cotton down of which it is made being of the same tinge with the cloth. The color, as well as superior quality of this cotton, seems to be derived from the soil; for it is said that the seeds of the nankeen cotton degenerate in both particulars when transplanted to another province, however little different in its climate. The common opinion, that the color of the stuff is given by a dye, occasioned an order from Europe, some years ago, to dye the pieces of nankeen of a deeper color than they had at that period; and the reason of their being then paler than formerly is as follows:—'Shortly after the Americans began to trade with China, the demand increased to nearly double the quantity it was possible to furnish. To supply this deficiency, the manufacturers mixed common white cotton with the brown; this gave it a pale cast, which was immediately remarked; and for this lighter kind no purchaser could be found till the other was exhausted. But the demand afterwards lessening the white cotton was no longer mixed with it, and the color returned to its former standard.

NAN-KING, a city of China, capital of the province of Kiang-nan, is said to have been formerly one of the most beautiful and flourishing cities in the world. When the Chinese speak of its extent, they say, if two horsemen should go out by the same gate, and ride round it on full speed, taking different directions, they would not meet before night. This account is evidently exaggerated; but it is certain that Nan-king surpasses in extent of ground all the other cities of China, and perhaps of the known world. The exterior wall encloses an irregular polygon, divided into two parts, the inhabited and uninhabited. From the outer gate to the inhabited part is a distance of about six miles, entirely covered with gardens and bamboo groves. In the most prosperous state of the city, this part contained numerous villas of the Mandarins and other great men; but now it is chiefly occupied by peasants, cultivating garden grounds.

Nan-king is situated three miles from the river Yang-tsekiang, the largest in China, and was formerly the imperial city: hence the name signifies the southern court; but, since the six grand tribunals have been transferred to Peking, it is called Kiang-ning in all the public acts and Chinese records, and has lost much of its ancient splendor. According to the Chinese, it had formerly a magnificent palace, no vestige of which is now to be seen; an observatory at present neglected, temples, tombs of the emperors, and other superb monuments, of which nothing remains. A third of the city is deserted, but the rest is populous and busy, particularly in the manufacture of silk, which is the staple, and a species of cotton cloth, of which great quantities are imported into Europe under the name of Nankeen. The paper and printing of this city are still also superior; and it is the most literary of any of the Chinese cities. The streets are not so broad as those of Peking, but they are said to be very beautiful, well paved, and bordered with rich shops. In this city resides one of the mandarins called Tsong-tou, who takes cognizance of all important affairs, not only of both the governments of the province, but also of those of the province of Kiang-si. The Tartars have a numerous garrison here, commanded by a general of their own; and occupy a quarter of the city separated from the rest by a plain wall. The gates are beautiful; and some temples, among which is the famous porcelain tower, 200 feet high, divided into nine stories. See our article China, vol. V., p. 600. It appeared to Mr. Ellis, in his late visit here, to be composed of a white tile, bearing the appearance of porcelain. At the top is a large ball, which the Chinese assert to be of solid gold. The structure bears the date of A.D. 1411.

The breadth and depth of the Yang-tse-kiang formerly rendered the port of Nan-king very

commodious; but at present the larger barks, or Chinese junks, never enter it. In April and May a great number of excellent fish are caught near the city, which are sent to court, covered with ice, and transported in that manner by barks kept entirely on purpose. These boats are said to make such expedition, that they arrive at Pekin, a distance of 600 miles, in eight or nine days. This city, though the capital of the province, has under its particular jurisdiction only eight cities of the third class. It is said to contain 1,000,000 inhabitants.

NANTES, Condivicnum, an ancient, large, and handsome city and sea-port, and the chief place of a prefecture of the same name, in the department of the Lower Loire, France, a post-town and the see of a bishop, with 85,000 inhabitants. It has an inferior court of judicature under the royal court of Rennes, a board of trade, a bank, an exchange, an hydrographical school of the first class, a maritime syndicate, a royal college, a medical school, lectures on midwifery, an agricultural society, a society for marine insurance, a custom-house, and foreign consulates; and is the principal post of the twelfth military division.

This city is finely situated on the right bank of the Loire, at the point where it receives the streams of the Edre and the Sèvre Nantaise, and is one of the most important and most commercial cities in the kingdom, being next to Bourdeaux, the second port on the coast. It is generally well-built, very airy, and remarkable for the uniformity of its public squares; the isle of Feydeau, the square and neighbourhood of Graslin, and the royal square, may be compared with the finest parts of the capital. The quays especially are very grand, and the view of the Loire very striking, covered with vessels of every description; the smiling aspect of a fine and extensive country, rising in the form of an amphitheatre, the islands and meadows stretching along the banks of the river, and the bridges, at the end of which another town, as it were, is seen in perspective, will always be the admiration of strangers. The pleasantest part, however, is the quay or port of the Fosse, shaded along the bank of the river with beautiful elms, a mile and a half long, and bordered with noble houses adorned with balconies. No vessels above 200 tons burden can enter this port; larger ships stop at Paimbœuf to discharge part of their cargo, as the tide does not rise above five feet. At the end of the course of St. Peter, on the banks of the Loire, rises the old castle of the dukes of Brittany, which contributes by its picturesque effect to embellish this spot. Here it was that Henry IV., in 1598, granted the famous edict of Nantes, the revocation of which, by Louis XIV. in 1685, was fatal to France, by occasioning the emigration of a great number of artists, and other useful men, who carried their industry and their riches into foreign lands.

The vicinity of the sea, which facilitates its intercourse with foreign parts, and the navigation of the river which favors the conveyance of goods as far as Paris, afford the greatest scope for the trade of Nantes. This is considerable; and consists in corn, flour, biscuits, butter, dry vegetables, wool, leather (both common and morocco), building wood, agricultural instruments, Spanish and Portuguese wines, brandy, wine, sugar, fine liqueurs, &c. It is a general magazine for provisions for the navy, supplying the ports of Brest, L'Orient, and Rochefort, and carries on a great export trade with the whole of Europe and the East and West Indies. Its manufactures, besides the articles already mentioned, consist of stockings, linens, handkerchiefs, prints, flannels, chemical productions, corks, brushes, paste-board, nails, iron-cables, fishing-nets, pipes, delf ware, wooden shoes, &c. There is a fine rope-manufactory; also cotton-spinning mills, glass-houses, brass-foundries, brandy distilleries, vinegar breweries, sugar refining-houses, tan-yards, curriers' shops, and white leather factories; cannon foundries, and dock-yards for large vessels, even to 1000 tons. Of all the large towns in France this is the cheapest to live in; there is abundance of all kinds of salt and fresh water fish.

The origin of Nantes may be traced to a very early date. Before the conquest of the Gauls it was the capital of the Namnètes, and a very powerful city in supporting those nations that dared to oppose the Romans. The inhabitants of this place were leagued with those of Vannes in a naval fight against Julius Cæsar; they defended their country with the utmost courage, and were the last to submit to the yoke of the conqueror. In 445 it sustained a terrible siege by the Huns; in 843 the Normans took it by assault, and massacred all the inhabitants; Geoffroy, count of Rennes, took it in 992; it was besieged, but without success, by the English in 1343; it was attacked by the earl of Buckingham in 1380, and delivered by Olivier de Clisson; in 1487 it was besieged again by the troops of Charles VIII.; and after the death of Anne, the last duchess of Brittany, it was reunited to France about the year 1553. On the 29th of June, 1793, the whole of the Vendean army, amounting to more than 80,000 men, attempted to carry it by storm; the patriotism of its citizens made up for the deficiency of their numbers, and, assisted only by a few battalions and squadrons of troops of the line, they obliged the invading army to retire. Since that time Nantes has been the theatre of the horrible executions ordered by Carrier and his bloody associates; the Nantese, however, are a people renowned for their uprightness, candor, generosity, humanity, and politeness, towards strangers; their manners are mild and less depraved than in other great towns of the kingdom. The town-hall, the prefect's palace, the exchange, surrounded with Ionic columns, and having one of its fronts adorned with the statues of several eminent French mariners; the assembly room, and the cathedral are fine buildings. Besides these there are the public library, the museum of pictures and antiquities, the cabinet of natural history, several beautiful walks and scenery on the banks of the rivers, that remind the traveller of some parts of Switzerland and Italy. Nantes is eighty-four miles south of Rennes, forty-eight north of Bourbon Vendée, and 286 south-west of Paris.

NANTUEIL (Robert) the celebrated de-

signer and engraver to the cabinet of Louis XIV. was born at Rheims in 1630. His father, a shopkeeper, gave his son a liberal education; who, having a taste for drawing, cultivated it with such success, that he became the admiration of the whole town: but marrying young, and not being able to maintain his family, he took a journey to Paris, where he made his talents known by a stratagem. Seeing several abbés at the door of an eating-house, he asked the mistress for an ecclesiastic of Rheims, whose name he had forgot, but that she might easily know him by a picture of him, which he showed: the abbés crowding round, were so charmed with it, that he offered to draw any of their pictures for a small sum. Customers came so fast, that he soon raised his price, and brought his family to Paris, where his reputation was quickly established. He took portraits in crayons, which he afterwards engraved for the academical theses; and in this way he took the portrait of the king, and afterwards engraved it as large as the life; a thing never before attempted. The king was so pleased with it, that he created the place of designer and engraver to the cabinet for him, with a pension of 1000 livres. He died in 1678. His prints amount to upwards of 240.

NANTUCKET, an island of the United States of North America in Massachusetts, is of a triangular form, about fifteen miles long, and eleven in extreme breadth, containing 29,380 acres. The soil is very productive in pasturage, though mostly sandy and lean. The cultivation is much neglected from the inhabitants being engaged in the whaling business. The island with several small ones near it forms a county, containing only the following town of the same name with the island. Eight leagues south of Cape Cod, and ten east of Martha's Vineyard.

NANTUCKET, formerly called Sherburne, a sea-port town on the island of this name, situated on the western side of a basin which lies in a bay on the north-west side of the island. The bay is formed by two projecting points; the longest, extending from the east end in a north-west direction, is called Sandy Point, on which is erected a light-house of stone; the other, forming the westerly side of a bay, is called Eel Point. At the entrance of the basin there are two points, three-quarters of a mile apart, which nearly land-lock the harbour, and render it safe from all winds. On Brant Point, at the right hand of the entrance, there is a light-house.

The town contains two banks, two insurance offices, a woollen manufactory, thirty spermaceti works employing a capital of 600,000 dollars, a reading room, and five houses of public worship, two for Friends, two for Congregationalists, and one for Methodists. The ground on which it is built rises gradually from the shore. The streets, except the main street, are narrow and irregular. The number of dwelling houses is stated at 720, and are almost wholly of wood. Very little attention has been paid to exterior elegance, but much to interior convenience and comfort. A fire-proof banking-house is now building in an elegant style. There are upwards of fifty private schools. Education is well attended to, and the inhabitants are distinguished for intelligence, as well as for enterprise.

The whaling business has been the principal employment of the inhabitants of this town for more than a century, and they are accounted the most expert and enterprising whalemen in the world. They have now forty-five ships, which average upwards of 300 tons in this fishery. This town and port with its shipping suffered greatly during the late war with England.

NANTUCKET SHOAL, a bank above fifteen miles in length, and six in breadth, to the south-east from the island of its name.

NANTUCKET BAY, a bay of the United States, in New Jersey, on the east side of Delaware, and opposite Bombay Hook.

NAP, or NAPP, *n. s.* & *v. a.* NAP'-TAKING, *n. s.* NAP'PY, *adj.* } Sax. þnœþþan; Teut. *napzen*, to sleep. A short sleep: to sleep or slumber; to be drowsy: and hence to be carelessly secure: nap-taking is seizure on a sudden, or in such a state: nappy is sleeping, or tending to produce sleep.

And whiles the housbonde taried alle thei *nappiden* and slepten. *Wiclif. Matt.* XXV.

Is ther no man for praiere ne for hire
That wol awaken our felaw behind?
A thefe him might ful lightly rob and bind:
See how he *nappeth*, for cokes bones,
As he wold fallen from his hors atones.
Chaucer. Cant. Tales.

Mopsa sat swallowing of sleep with open mouth, making such a noise as no body could lay the stealing of a *nap* to her charge. *Sidney.*

Let your bounty take a *nap*, and I will awake it anon. *Shakspeare.*

Naptakings, assaults, spoilings, and firings, have in our forefathers' days, between us and France, been common. *Carew.*

The sun had long since, in the lap
Of Thetis, taken out his *nap*. *Hudibras.*

They took him *napping* in his bed. *Id.*

So long as I'm at the forge you are still taking your *nap*. *L'Estrange.*

A wolf took a dog *napping* at his master's door. *Id.*

When I my thresher heard,
With *nappy* beer I to the barn repaired. *Gay.*

What is seriously related by Helmont, that foul linen, stopt in a vessel that hath wheat in it, will in twenty-one days time turn the wheat into mice; without conjuring, one may guess to have been the philosophy and information of some housewife, who had not so carefully covered her wheat, but that the mice could come at it, and were there taken *napping* just when they had made an end of their good chear. *Bentley.*

NAP, *n. s.* NAP'LESS, *adj.* } Sax. þnoþþa; Swed. and Dan. *nopp*, *noppe*. Qu. from the above word? Down; the down or grain of cloth raised by dressing; fleeciness; softness: napless, destitute of nap or down; bare.

Amongst those leaves she made a butterfly
With excellent device and wondrous flight;
The velvet *nap*, which on his wings doth lie,
The silken down, with which his back is dight.
Spenser.

Were he to stand for consul, ne'er would he
Appear in the' market place, nor on him put
The *napless* vesture of humility. *Shakspeare.*

Jack Cade the clothier means to dress the commonwealth, and set a new *nap* upon it. *Shakspeare.*

Plants, though they have no prickles, have a kind of downy or velvet rind upon their leaves; which

down or *nap* cometh of a subtil spirit, in a soft or fat substance. *Bacon.*

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

NAPÆA, in botany, a genus of the polyandria order, and polyadelphia class of plants; natural order thirty-seventh, columniferæ: CAL. singular and cylindric; the arilli coalited and monospermous. There are two species both with perennial roots, composed of many thick fleshy fibres which strike deep into the ground, and are connected at the top into large heads: the stalks grow to seven or eight feet high, producing white flowers, tubulous at bottom, but spreading open at top, and dividing into five obtuse segments. Both these plants are natives of Virginia and other parts of North America; from the bark of some of the Indian kinds a sort of fine hemp might be procured, capable of being woven into very strong cloth. They are easily propagated by seed which will thrive in any situation.

NAPE, *n. s.* Sax. cnæþ, the top; Swed. *knæp;* Goth. *gnep.* (Thus the Latins styled the same part *summus.*) The upper joint of the neck.

Turn your eyes towards the *napes* of your necks, and make but an interior survey of your good selves. *Shakspeare.*

Domitian dreamed, the night before he was slain, that a golden head was growing out of the *nape* of his neck. *Bacon.*

Take de flea by the *nape* of the neck and put a bit of powder in his mouth and that will kill de flea. *Frenchman.*

NA'PHTHA, *n. s.* Lat. *naphtha.* Strabo represents it as a liquation of bitumen. It swims on the top of the water of wells and springs. That found about Babylon is in some springs whitish, though it be generally black, and differs little from petroleum.

Naphtha is a very pure, clear, and thin mineral fluid, of a very pale yellow, with a cast of brown in it. It is soft and oily to the touch, of a sharp and unpleasing taste, and of a brisk and penetrating smell of the bituminous kind. It is extremely ready to take fire. *Hill's Materia Medica.*

NAPHTHA is an inflammable substance of the bituminous kind. See CHEMISTRY. Large quantities are obtained from the city of Badku in Persia. The earth in the neighbourhood of this city is completely impregnated with naphtha. The inhabitants have no other fuel, or light but what they derive from this substance. For an account by captain H. Cox of certain similar grounds near Rangoon in the Burmhan empire, see BURMHAN EMPIRE.

Black petroleum is formed with sand into small cakes and used as fuel. Three of these balls are sufficient to heat an oven for baking bread, but the bread contracts a very disagreeable taste and odor. The lamps also are supplied with naphtha, and the fires of the lower classes. The Persians carry away great quantities in their vessels, but they are generally in such a bad condition, that the sea is often covered with naphtha to the distance of several leagues. In gloomy or stormy weather, the springs are in a state of the greatest ebullition, and the naphtha, which often takes fire spontaneously at the surface of the earth, flows burning along the surface of the sea, in quantities, and to a distance quite inconceivable. When the sky is clear, and the weather serene, the ebullition of the springs does not exceed two or three feet.

In consequence of boiling, the petroleum acquires, by the evaporation of the more volatile naphtha, a degree of consistence that obstructs by degrees the orifice of the spring, which then becomes surrounded with small heaps of maltha or earthy mineral pitch, a black substance, as hard and tenacious as pitch. When the resistance of this accumulation overcomes the force of the spring, the naphtha finds some other opening. Springs which have not been long opened, have an embouchure from eight to ten feet in diameter. The naphtha flows from these springs into various reservoirs by means of small cuts. In the first reservoir are left the water and the grosser parts which accompany the naphtha from the spring. This coarser matter, which has a strong and penetrating odor, is used for fuel only by the poorest classes of the Persians and other neighbouring nations. It is principally employed as a substitute for oil, or for making the fire-balls already mentioned.

The whitest and the purest naphtha is obtained principally from the peninsula of Apcheron. It is more fluid and more volatile than any other kind, but it is obtained only in small quantities. The Russians drink it as a cordial; and when taken internally it is thought to be useful in cases of the stone, in pains in the head and chest, and in venereal affections and blennorhagia, maladies to which the Persians and Russians are very much subject.

Naphtha is also used externally for scorbutic spots, and in cases of gout, bruises, sprains of the tendons, and nervous spasms. It is also employed to remove spots of grease from woollen and other stuffs, but it is difficult to destroy the disagreeable smell which it occasions.

According to Mongez, there are three kinds of naphtha, the white, reddish, and green or deep-colored; and it is a true petrol or rock oil, of which the lightest and most inflammable is called naphtha. It is of an extremely fragrant and agreeable smell; dissolves resins and balsams, but not gum-resins nor elastic gum. It dissolves in the essential oils of thyme and lavender, but is insoluble in spirit of wine and ether. It is as inflammable as ether; and attracts gold from aqua regia. Naphtha, says Cronstedt, is collected from the surface of wells in Persia; but Kirwan says, it issues out of white, yellow, or black clays, in Persia and Media. The finest is brought from a peninsula in the Caspian Sea, called by Kempfer okefra. It issues out through the earth into cisterns and wells purposely excavated for collecting it at Badku in Persia. Different kinds of it are also found in Italy, in Modena, and Mount Ciaro, twelve leagues from Plaisance. The formation of naphtha and petroleum is by most naturalists and chemists ascribed to the decomposition of solid bitumens by the action of subterraneous fires; naphtha being the lightest oil, which the fire disengages first; what follows gradually acquiring the color and consistence of petrol. The petrolea, united with some earthy

substances, or altered by acids, assume the appearance of mineral pitch, pissasphaltum, &c. This opinion is supported by the phenomena attending the distillation of amber; where the first liquor that rises is a true naphtha; then a petroleum of a brown color; and lastly, a black substance like jet, which, being farther urged by the fire, leaves a dry friable matter, &c. All the different kinds of petrolea are often found near the same spot; of which we have an instance of Mount Testin in Modena. Some are of opinion that these mineral oils or bitumens are formed from the vitriolic acid, and various oily substances found in the bowels of the earth. See PETROLEUM.

NAPHTUHIM, the fourth son of Mizraim, and grandson of Ham. Gen x. 13. Calmet thinks his posterity peopled that part of Ethiopia in Africa between Syene and Meroe, of which Nepata was the capital; but the opinion of Bochart seems more probable, that they peopled Marmorica west of Egypt, and on the south coast of the Mediterranean, where a temple was built to the god Aptuchus, a name nearly resembling Naphtuhim. Nor is it improbable that Naphtuhim may be the Neptune of the Greeks, who was originally a Libyan, and had his temples usually built on the sea coasts.

NAPIER, or NAPEIR (John), baron of Merchiston, inventor of the logarithms, was the eldest son of Sir Archibald Napier of Merchiston, and born in 1550. After going through the ordinary courses of philosophy at the university of St. Andrews, he made the tour of France, Italy, and Germany. Upon his return to his native country his talents soon rendered him conspicuous, and might have raised him to the highest offices in the state: but declining all civil employments, and the bustle of the court, he retired to literary researches. He applied himself chiefly to the study of mathematics, and of the Apocalypse. The result of his theological labors was a treatise entitled A plaine Discovery of the whole Revelation of Sainte John set doune in two treatises; set foorth by John Napier L. of Marchestoun younger: whereunto are annexed certaine oracles of Sibylla agreeing with the Revelation and other portiones of Scripture, 1593. The work is dedicated 'to the right excellent high and mighty prince James V. king of Scottes;' and the author exhorts him to be ready for the final judgments on the papal throne which he supposed were about to commence. In the course of his work he shows that as the last trumpet or vial began in 1541, and as it contains 245 years, it should extend to A. D. 1786.—'Not that I mean,' says the noble author, 'that the world shall continue so long, because it is said that 'for the elect's sake those days shall be shortened,' but that if the world wer to endure, that seventh age should continew to the yeare of Christ 1786.' He also fixed the day of judgment between 1688 and 1700 A. D. Surely this is a sufficient specimen of the value of logarithmic talent and accuracy in interpreting prophecy. This work has however been printed abroad in several languages, particularly at Rochelle in 1693, 8vo., revised by himself. Nothing, says lord Buchan, could be more agreeable to the Rochellers or to the Huguenots of France, at this time, than the author's annunciation of the pope as antichrist, which in this book he has set forth with much zeal and erudition. But what principally rendered his name famous was his great and fortunate discovery of the logarithms in trigonometry, by which the ease and expedition in calculation have so wonderfully assisted the science of astronomy and the arts of practical geometry and navigation. That he had begun about 1593 the train of enquiry which led him to that great achievement in arithmetic appears by a letter to Crugerus from Kepler in 1624; wherein, mentioning the Canon Mirificus, he writes thus: Nihil autem supra Neperianam rationem esse puto: etsi Scotus quidem literis ad Tychonem, anno 1504, scriptis jam spem fecit Canonis illius mirifici; which allusion agrees with the story mentioned by Wood in his Athenæ Oxon, and explains it in a way perfectly consonant to the rights of Napier as the inventor. When Napier had communicated to Mr. Henry Briggs, mathematical professor in Gresham College, his wonderful canon for the logarithms, that learned professor set himself to apply the rules in his Imitatio Napeirea; and in a letter to archbishop Usher, in 1615, he writes thus:—'Napier, baron of Merchiston, hath set my head and hands at work with his new and admirable logarithms. I hope to see him this summer, if it please God; for I never saw a book which pleased me better, and made me more wonder.' Kepler dedicated his Ephemerides to Napier, in 1617; and it appears, from many passages in his letter, that he held Napier to be the greatest man of his age in the department to which he applied his abilities. The last literary exertion of this eminent person was the publication of his Rhabdology and Promptuary in 1617, which he dedicated to the chancellor Seton; and soon after died at Merchiston on the 3d of April, O. S., 1617, in his sixty-eighth year, and twenty-third of his happy invention. The titles of his published works are:—1. A Plain Discovery of the Revelation of St. John. 2. Mirifici ipsius Canonis Constructio et Logarithmorum, ad Naturales ipsorum Numeros Habitudines. 3. Appendix de aliâ atque præstantiore Logarithmorum Specie Constituendâ, in quâ scilicet unitas Logarithmus est. 4. Rhabdologiæ, seu Numerationes per Virgulas, libri duo. 5. Propositiones quædam eminentissimæ, ad Triangula Spherica Mira Facultate resolvenda. 6. Letter to Anthony Bacon (the original of which is in the archbishop's library at Lambeth), entitled Secret Inventions Profitable and Necessary in these Days for the Defence of this Island, and withstanding Strangers Enemies to God's Truth and Religion; which the earl of Buchan has published in the Appendix to his Account of Napier's Writings. This letter is dated June 2d, 1596, about which time it appears the author had set himself to explore his logarithmic canon. This eminent person was twice married. By his first wife, who was a daughter of Sir James Stirling of Kair, he had one son, who succeeded to the estate. By his second wife, a daughter of

Sir James Chisholm of Cromlix, he had a numerous issue.

NAPIER'S RODS, or BONES, an instrument invented by baron Napier, whereby the multiplication and division of large numbers is much facilitated. Suppose the common table of multiplication to be made upon a plate of metal, ivory, or pasteboard, and then conceive the several columns (standing downwards from the digits on the head) to be cut asunder; these are called Napier's rods for multiplication. But then there must be a good number of each; for as many times as any figure is in the multiplicand, so many rods of that species (i. e. with that figure on the top of it) must we have; though six rods of each species will be sufficient for any example in common affairs: there must be also as many rods or cyphers. The figures on every rod are written in an order different from that in the table. Thus the little square space or division in which the several products of every column are written, is divided into two parts by a line across from the upper angle on the right to the lower on the left; and, if the product is a digit, it is set in the lower division; if it has two places, the first is set in the lower, and the second in the upper division; but the spaces on the top are not divided; also there is a rod of digits, not divided, which is called the index rod, and of this we need but one single rod. See plate MISCELLANIES, figs. 1 and 2.

1. First lay down the index rod; then on the right of it set a rod whose top is the figure in the highest place of the multiplicand: next to this again, set the rod whose top is the next figure of the multiplicand; and so on in order to the first figure. Then is your multiplicand tabulated for all the nine digits; for in the same line of squares standing against every figure of the index-rod, you have the product of that figure; and therefore you have no more to do but to transfer the products and sum them. But in taking out these products from the rods, the order in which the figures stand obliges you to a very easy and small addition; thus, begin to take out the figure of the lower part, or unit's place, of the square of the first rod on the right; add the figure in the upper part of this rod to that in the lower part of the next, and so on; which may be done as fast as you can look on them. To make this practice as clear as possible take the following example:—To multiply 4768 by 385. Having set the rods together for the number 4768, as in fig. 2, against 5 in the index I find this number, by adding, according to the rule . . . 23840
Against 8, this number . . . 38144
Against 3, this number . . . 14304

Total product . . . 1835680

To make the use of the rods more regular and easy, they are kept in a flat square box, whose breadth is that of ten rods, and the length that of one rod, as thick as to hold six (or as many as you please), the capacity of the box being divided into ten cells, for the different species of rods. When the rods are put up in the box (each species in its own cell, distinguished by the first figure of the rod set before it on the face of the box near the top), as much of every rod stands without the box as shows the first figure of that rod: also upon one of the flat sides without and near the edge, upon the left hand, the index-rod is fixed; and along the foot there is a small ledge; so that the rods when applied are laid upon this side, and supported by the ledge, which makes the practice very easy; but, in case the multiplicand should have more than nine places, that upper face of the box may be made broader. Some make the rods with four different faces, and figures on each for different purposes. These are also sometimes used in division.

NAP'KIN, *n. s.* As Dr. Johnson says, from nap; which etymology is oddly favored by Virgil, 'Tonsisque ferunt mantilia villis:' but Minsheu, with more probability, 'From Fr. *nappe* (dimin.) i. e. mappa, quasi parva mappa, a little table cloth.' A cloth used at table for wiping the hands or mouth. Bishop Hall finely illustrates the word.

> I am glad I have found this *napkin*;
> This was her first remembrance from the Moor.
> *Shakspeare.*

Those men are not more injurious to themselves, than to the divine beneficence, who, in an opinion of greater sanctity, abridge themselves of a moderate participation of those comfortable helps God hath allowed them; and sit sullenly at a liberal board with their hat pulled over their eyes; not so much as removing their *napkin* from their trencher; unjustly scrupling their conscience with 'Touch not, taste not.' *Bp. Hall.*

The same matter was woven into a *napkin* at Louvain, which was cleansed by being burnt in the fire. *Wilkins.*

By art were weaved *napkins*, shirts, and coats, inconsumptible by fire. *Browne's Vulgar Errours.*

Napkins Heliogabalus had of cloth of gold, but they were most commonly of linen, or soft wool. *Arbuthnot.*

NAPLES.

NAPLES, the continental division of the kingdom of the Two Sicilies, includes the ancient Apulia, Campania, Magna Græcia, and Samnium. Regarding Italy under the figure of a boot, it forms the foot and lower part of the leg, or comprises the whole southern part of that peninsula, extending from E. long. 13° 16′ to 18° 59′, and N. lat. 37° 46′ to 42° 53′, and is bounded on the north-west by the states of the Church; north-east by the Adriatic, and on the south and south-west by the Mediterranean. From the papal territories to the southern extremity of Calabria it is computed to measure about 360 miles, and its greatest breadth is 120. In the adjacent seas it possesses the important dependent island of Sicily; and the smaller isles and dependencies of Ponza, Xentolia, Ischia, Procida, Nisida, Capri, Galli, Licosa, and Dino in the Mediterranean; in the Ionian Sea, Calypso, Monte Sardo, St. Andreo, and Santa

Pelagia; and in the Adriatic, Tremeti and Pelasosa. Naples somewhat exceeds Scotland in extent, containing fully 30,000 square miles; its population is above 5,000,000 by the returns of 1818, divided into the following provinces:

Provinces.	Principal towns	Inhabitants.
1. Napoli or Naples	Naples	330,000
2. Terra di Lavoro	Capua	7,200
3. Principato Citra	Salerno	10,000
4. Principato Ultra	Conza	6,000
5. Abruzzo Ultra I.	Aquilæ	13,600
6. Abruzzo Ultra II.	Terrano	
7. Abruzzo Citra	Chiti	12,300
8. Capitanta	Manfredonia	5,000
9. Molise	Bojano	10,000
10. Terra di Bari	Bari	18,000
11. Terra d'Otranto	Brindisi	6,000
12. Bascilicata	Acerenza	
13. Calabria Citra	Cozenza	14,000
14. Calabria Ultra I.	Monte Leoni	8,000
15. Calabria Ultra II.	Reggio	16,000

Sicily contains in addition about 1,618,000 souls.

Like most other parts of Italy, Naples is remarkably mountainous, having many beautiful plains and extensive valleys, which its inimitable climate adorns with luxuriant vegetation. The Appennines traverse its whole extent. One of their branches extends to the coast, and reaches the Adriatic in the promontory of Gargano. The main ridge also divides it into branches about the parallel of Mount Vesuvius, the one stretching towards the south-eastern peninsula, the other intersecting Calabria to the shores of the strait that separates it from Sicily. The most elevated summit of this chain is Grand Sasso, rising about 8800 feet above the level of the sea. Velino is nearly 8300, and Sila 5000 feet in height. Various groups and detached mountains rise in other parts of the country. The Volture, from which the wind Vulturnus had its name, is one of these, and the celebrated Vesuvius, standing on a space of nearly thirty miles in circumference. This is on the whole the most interesting object in this delightful country; yet its appearance at a distance is not striking, except during an eruption, as its height is only about 3600 feet. But, awoke in its volcanic wrath, 'the throes of the mountain, the subterranean thunders, the thickening smoke, the ruddy flames, the stony showers ejected to a prodigious height, amidst the coruscations of native lightning, with the eruption of the lava, descending in a horrid and copious stream of destruction, have exercised the powers of many writers,' and have been well said 'to exceed the utmost energy of description.' The southern part of this kingdom is subject to the destructive calamity of earthquakes, which have buried whole cities.

The rivers, from the narrowness of the peninsula and the height and position of the mounteins, are all small. The principal are the Garigliano, the Volturno, the Basiento, the Pescara, the Sangro, and the Ofanto, the ancient Aufidus. The chief lakes are Celano, the ancient Tricimus, Agnano, Averno, Licola, Fusaro, Patrea, Lesina, and Fondi. Marshes abound on various parts of the sea coast, and render some of the most fertile tracks unfit for human abodes.

In point of climate Naples presents every variety that seems congenial to Europeans. The Campagna Felix, stretching on each side of the capital, is constantly genial, with a serene sky, and here the treasures of the vegetable kingdom are poured forth in rich profusion. During the most sultry parts of the year, the air is cooled and refreshed by breezes from the sea and mountains. In the mountainous districts the winters are more severe, and snow falls abundantly, though it seldom rests in the plains. In the vicinity of the marshes, the miasmata become the parent of various diseases. Here, however, the fruits of the southern latitudes thrive, and the aloes and palm diversify the scenery. The weather is very various in different parts of Naples: the provinces between the Appennines and the Tyrrhenian Sea, are often drenched with rain, while those on the east of the same ridge do not experience a refreshing shower. Towards the Adriatic, indeed, many arid tracts are met with: but Calabria is on the whole very fruitful, except in the woods and marshes.

Agriculture, as may be expected, is in a very low state here: although the whole country presents a scene which would abundantly reward its efforts. But the scientific application of draining and manure, the division of labor, and the proper appropriation of the soil, are almost wholly unknown. Even the barbarous irrigation of the East has not been attended to on these shores.

Vines, olives, and grain, are often grown on the same spot; elms and poplars are planted in rows, for the support of the vines, and the intermediate places sown with grain or pulse: the grain is either separated from the straw by the treading of cattle, or by a large rough stone which is dragged over it, till the sheaves are broken, and the corn thrown out. Oxen are universally used for the business of agriculture. Indian corn, barley, and rye, are the most common kinds of grain, and rice in the low grounds. Flax and hemp are generally seen; and cotton and tobacco are grown in some of the southern tracts. Indigo was also introduced, and in the reign of Murat succeeded.

Chateauvieux's Letters on Italy contain the following description of the valley-farming of Naples, furnished by a Neapolitan metayer. 'The poorer metayers,' he said, 'occupy only so much land as they can cultivate by their own families, that is to say, four or five acres. Our condition is not a good one, since we get for our trouble only a third of the produce, two-thirds belonging to the owner, which we pay in kind into the hands of the steward. We have no ploughs, and the whole is cultivated by the spade. It is true that the soil, being mixed with ashes, is easily stirred; and even our children assist us in this work. At times the mountain, hence named Vesuvius, pours forth showers of ashes, which spread over our fields and fertilise them. The trees,' he adds, 'which you see on

the land, are not without their use; they support the vine, and give us fruit; we also carefully gather their leaves: it is the last autumnal crop, and serves to feed our cattle in the winter. We cultivate, in succession, melons, between the rows of elms, which we carry to the city to sell; after which we sow wheat. When the wheat crop is taken off, we dig in the stubble, which is done by our families, to sow beans or purple clover. During six months our children go every morning to cut a quantity of it with the sickle, to feed the cows. We prefer the females of the buffaloe, as they give most milk. We have also goats, and sometimes an ass, or a small horse, to go to the city and carry our burdens; but this advantage belongs only to the richer metayers. We plant the maize the following spring, after clover or beans. We manure the land at this time, because this plant is to support our families; this crop, therefore, interests us more than all the others, and the day in which it is harvested is a day of festivity in our country. All the villagers assemble together, the young women dance, and the rest of us walk slowly, being laden with our tools: arrived at our dwellings, each family goes into its own; but they are so near each other, that we can still converse together. We often gather seven ears from one stalk of maize, and many of them are three palms long. When the sun is high, the father of the family goes into the adjoining field to get some melons, while the children gather fruit from the surrounding fig-trees. The fruit is brought under an elm-tree, round which the whole family sits; after this repast the work begins again, and does not cease until the close of day. Each family then visits its neighbours, and tells of the rich crop the season has bestowed upon them. We have no sooner gotten in the maize than the earth is again dug, to be sown once more with wheat; after this second crop we grow in the fields only vegetables of different kinds. Our lands thus produce wine and fruit, corn and vegetables, leaves and grass for the cattle. We have no reason to complain of their fertility; but our conditions are hard, little being left for our pains; and, if the season is not propitious, the metayer has much to complain of.'

The cotton plant, in the neighbourhood of Vesuvius, and in Sicily, is sown in March, in lines at three feet distance, and the plants two feet apart in the lines. The earth is stirred by a one-horse plough, or by hoes, and carefully weeded. As soon as the flowering season is over, about the middle of September, the ends of the shoots are nipped off, to determine the sap to the fruit. The capsules are collected as they ripen; a tedious process, lasting two months: the cotton and the seeds are then separated; an operation still more tedious. The most extensive cotton farmers are in the vale of Sorento. There the rotation, according to Mr. Loudon, is, 1. maize; 2. wheat, followed by beans, which ripen the next March; 3. cotton; 4. wheat, followed by clover; 5. melons, followed by French or common beans. Thus, in five years, are produced eight crops. In this district, wherever water can be commanded, it is distributed, as in Tuscany and Lombardy, among every kind of crop. The tomato, or love apple (solanum lycopersicum, L.), so extensively used in Italian cookery, forms also an article of field-culture near Pompeii, and especially in Sicily, whence they are sent to Naples, Rome, and several towns on the Mediterranean Sea. It is treated much in the same way as the cotton plant.

'The Neapolitan maremmes, near Salerno,' adds this writer, 'to the evils of those of Rome, add that of a wretched soil. They are pastured by a few herds of buffaloes and oxen; the herdsmen of which have no other shelter during the night than reed huts; these desert tracts being without either houses or ruins.' The plough of this ancient Greek colony is thought to be the nearest to that of ancient Greece. The manna, a concrete juice of the ornus rotundifolia, forms an article of cultivation in Calabria.

Olives are abundant, while oranges, lemons, citrons, melons, almonds, dates, figs, pomegranates, and other tropical fruits abound in the south.

The domestic and wild animals are those of most other parts of Italy. Mules are employed chiefly in travelling, and the herds of buffaloes are found chiefly on the marshy plains in the north-west, while common cattle and sheep are bred in most others. The crested porcupine is peculiar to this part of Italy.

The mineral productions of Naples have never been fully explored. Rock salt, alum, vitriol, sulphur, crystal, and marble, are those best known: of the first Calabria contains several hills; but government, having a monopoly of bay salt, does not permit them to be wrought. Near Tarento are two salt lakes, covered with water in winter, but dried up in summer; when a quantity of fine white salt is deposited.

Among the natural curiosities of this country may be mentioned the Grotto del Cane, and the Solfatara: the first is a cave near Naples, from which a hot mephitic vapor constantly issues, and it derives its name from the following experiment, usually made with dogs:—The animal, when brought near the mouth, manifests his uneasiness by convulsive struggles, and soon becomes apparently lifeless; but, being removed, he recovers after a few minutes, and appears uninjured. These experiments, however, cannot be often repeated with the same dog without proving fatal, and a similar effect is produced on the human frame. The Solfatara is thus described by Mr. Eustace:—'The appellation of Solfatara is a corruption of Sulphutara, and given to an oval plain, extending on an eminence, but surrounded on all sides by an elevated border resembling a rampart. The shattered hills that form this rampart are impregnated with sulphur, and heated by a subterranean fire. They are destitute of all verdure, and of all appearance of vegetation. The plain below is a pale yellow surface of sulphureous marl, thrown like a vault over an abyss of fire. Its heat almost scorches the feet of those who pass over it, and the workings of the furnace beneath are heard distinctly through it. A stamp, or the rolling of a stone over it, rebellows in hollow murmurs, weakening as they descend, till they lose themselves in the vastness of the abyss

below. Sulphureous exhalations arise from the crevices; and from an orifice at one of the extremities a thick vapor by day, and a pale blue flame by night, bursts forth with a murmuring sound and great impetuosity.'

'In the sublimer phenomena of nature Naples is surpassed by no country. Here the earth frequently trembles, the volcano roars, the day is darkened with clouds of smoke, and the night is illuminated by vivid flames, while torrents of fiery lava roll in destruction over regions clothed in all the charms of nature. Cities have been so engulfed by the flood, that all traces of their existence were for ages lost. Of this Herculaneum and Pompeii are examples; and have become objects of the most interesting modern discoveries. The former is so deeply entombed indeed, and the substance with which it is covered is so complete a calx, as to cause the principal researches to be abandoned. But Pompeii being nearer the surface, and the matter more easily removed, great part of it, since the exertions of Marat, have been brought to the light of day. The following is one account of the work of disclosure, given by a gentleman who lately visited it:—'The houses in general are very low, and the rooms are small, I should think not above ten feet high. Every house is provided with a well and cistern. Every thing seems to be in proportion; the principal streets do not appear to exceed sixteen feet in width, with side pavements of about three feet; some of the subordinate streets are from six to ten feet wide, with the side pavements in proportion; these are occasionally high, and are reached by steps. The columns of the barracks are about fifteen feet in height, they are made of tuffa with stucco; one-third of the shaft is smoothly plastered, the rest fluted to the capital. The walls of the houses are often painted red, and some of them have borders and antique ornaments, masks, and imitations of marble, but in general poorly executed. I have observed, on the walls of an eating room, various kinds of food and game tolerably represented; one woman's apartment was adorned with subjects relating to love; and a man's with pictures of a martial character. Considering that the whole has been under ground upwards of seventeen centuries, it is certainly surprising that they should be as fresh as at the period of their burial. The whole extent of the city, not more than half of which is excavated, may be about four miles.'—*Williams.* But see our article POMPEII.

The Neapolitans are not a manufacturing people. The staple article is silk; but nearly half the quantity made is exported raw. To this may be added a few cottons, muslins, some embroidery; fire-arms, and porcelain (made in the capital); and we have the whole catalogue of their industry in these respects. The commerce partakes of the general languor of the inhabitants. Its chief exports are oil, silk, wool, wine, cotton, corn, and fruits. About 4000 cwt. of silk are reckoned as export. The imports are sugar, coffee, and other groceries; woollens, linens, cottons, of East India and of British manufacture; hardware, lead, tin clocks, watches, household furniture, and large quantities of salt fish. Of these, by far the largest proportion is imported in British vessels. A commercial treaty, concluded in February 1816, places British subjects on a similar footing as to privileges with the natives. But French, Genoese, Venetian, and Trieste vessels frequent the Neapolitan ports. The fishery along the coast is by no means inconsiderable. On or near the lake Facino oysters have been bred from the time of the Romans. On the margin of the lake a house is constructed for those who take care of the oysters, and who sell them to the dealers in Naples, or to those who come and eat them on the spot. 'Adjoining the house is a covered enclosure, where the oysters are kept till wanted; and along the margin of the lake, and in most parts of it, are placed circles of reeds, with their summits above the water. The spawn of the oysters attaches itself to these reeds, and grows there till of an edible size: they are then removed to the reserve, and kept there till wanted. In removing them the reeds are pulled up one by one, examined, and the full-grown oysters removed and put in baskets, while the small-sized and spawn are suffered to remain, and the reed is replaced as it was. The baskets are then placed in the reserve and not emptied till sold. In two years from the spawn, Lasteyrie observes, the oyster is fully grown.'

The Neapolitans retain some peculiar traces of ancient, and not a few of oriental manners. Like the ancients, they pass the greater part of the day in the open air; not indeed like them, to discuss the affairs of the forum, or the debates of the senate (of these they take no note), but from the mere want of emotion, from an intolerance of ennui, or to satisfy a vague and gaping curiosity. In the open air, they drink, they eat; and, if they work at all, it is in the open air. For this reason it is that the city of Naples has always the aspect of being over-peopled. The principal street (Toledo) has the appearance, especially towards the close of the day, of a popular rising. It would seem as if a Massaniello had convened his mob of noisy and factious citizens to overturn the state.

In feature, taste, and manner, the Neapolitans have obviously an affinity with oriental nations. But there are other characteristics which are exclusively their own. Mean and proud; superstitious and irreligious; indolent and avaricious; phlegmatic and irritable; the slaves of habit, but goaded with a feverish restlessness for any thing that is new; eager for change, but made for obedience; affecting independence, and yet idolaters and flatterers of wealth or greatness. At Naples (and only at Naples) is it customary to touch the garment of a grandee with veneration, and then to kiss the hand that has been honored with the contact. They are nationally proud, not like other nations, of their historical fame or actual greatness, but of the beauty of their climate, the fertility of their soil, and the splendor of their capital. As to their government, they hardly understand the word. They seem never to have asked, whether it is monarchical or republican. Such, however, are the unceasing contrasts of their character, that, with an utter insensibility on political subjects, their

ears tingle at the word 'liberty;' for in their vocabulary, liberty means the right of doing as they please, and of giving unrestrained vent to their appetites. They are therefore always ready to join the first demagogue who cries out 'liberty.' But the political idol of one day will be meanly abandoned on the next. They foam and effervesce, and then lie down with their accustomed apathy, and forget all that has passed. To-day they may be incited to massacre their fellow-citizens; to-morrow the blood-fever will subside, and they will be as calm and indolent as before. Without this key to the Neapolitan character, the short-lived revolutions so frequent in their history would be an inexplicable problem.

Perhaps, however, sufficient justice has never been rendered to the lowest classes here. Their vices lying on the surface, we are too apt to overlook their good qualities. Not that they are a moral race of men: they scarcely know what is meant by morals. But they have a wild and untutored sense of right. They are by no means seriously quarrelsome, their disputes evaporating in noise and clamor. In an instant they change from intense anger to the calmest indifference. Whoever throws a superficial glance on the character of this people, would suppose them liable to every excess of popular delirium. But the Neapolitan, the slave of every changing sensation, is perpetually varying from himself. Like his own Vesuvius, he seems to menace death and destruction. In an instant he is placid and serene, passing from hatred to love as rapidly, and almost as unconsciously, as the infant passes from tears to gladness. Hence it is that faction has ever found temporary aliment amongst this eccentric people, though the projects conceived in the moments of heat and frenzy are abandoned with an inconstancy far surpassing all that has ever been said or thought of the proverbial levity of the multitude. The middling classes are upon the whole the most respectable. The palietti, one of the most thriving professions in Naples, the professors at the university, the merchants, and some portion, we wish we could say the larger portion, of the ecclesiastics, belong to this respectable division. Of the highest class, the manners are variously shaded. As if to show how extremes meet in national character, many of the nobility resemble in their moral features the despised race of the Lazaroni. In truth, they are equally indolent and superstitious, and in many respects equally ignorant. Educated for the most part in the cloister, or by incompetent preceptors, who hold in the family an inferior rank, and actually receive a less salary than the principal domestics, the Neapolitan noble arrives at mature years wholly unripe in understanding or judgment. Incompetent to the administration of his own affairs, and entirely absorbed in fêtes and spectacles, he falls into the hands of some needy lawyer, who fattens at his expense, or surrenders himself to some insinuating abbé, who has stolen into his confidence. His noble sposa, transferred from the gloom of a convent to the glitter of public life, without education or accomplishments, is driven to intrigue as a mere refuge from vacuity. Happily there are exceptions to this remark; but all estimates of popular character must be formed chiefly of its more marked and prominent features. Upon the whole, indolence is the master vice of Naples. But the Neapolitans have in general much penetration; a lively and fertile fancy; a discourse sparkling with images. They catch almost instinctively the peculiarities and humors of others. Irony is their prevailing figure of speech. The extravagant and hyperbolical flattery which they address to those with whom they converse is frequently so much dissembled satire and latent epigram.

The robbers throughout the Neapolitan territory are increased rather than diminished since the war. Of the desperadoes, to whose outrages the traveller through those parts is exposed, and who it appears carry men away for the sake of the ransom, as before observed, Mr. Matthews relates the following anecdote:—'Two men were lately kidnapped from this neighbourhood, and taken up into the mountains. The friends of the one sent up nearly the sum that was demanded—the other had no friends to redeem him. The robbers sent the first man back without his ears; detaining them as a set off against the deficiency of the ransom; and the other poor fellow was returned in eight pieces!' It seems that in the Italian governments justice has not an arm long and strong enough to reach and suppress these horrible outrages. In the Neapolitan territory, through the whole line of road from Terracina to Capua, the danger from robbers is as great as in the Pontine Marshes, notwithstanding small parties of soldiers are encamped throughout the whole way at small intervals; but the wonder ceases when we are informed that the soldiers themselves, after dark, lay aside their military dress and act as banditti. Happy Naples, to receive a national revolution, and a new polity from the hands of those faithful reformers! Our own reformers were at one time, perhaps, not a whit better; but happily they were not in red coats. The whole way from Terracina to Naples, Mr. Matthews represents as very pleasing. The landscape is every where enriched and adorned with hedges of laurustinus; while the olives and vines, the orange and lemon groves, covered with fruit,—the myrtle, the fig, and the palm tree give to the scene an effect, at once soft, mellow, and lustrous; and yet, in the midst of the bounties and blessings of Providence, we shall find that man has contrived to make his lot miserable, if we regard the wretched condition of the mass of the inhabitants. Of this the bad government must doubtless take the principal share of the blame; but Mr. Matthews is quite right in attributing it in part to the very advantages themselves, which the country apparently enjoys; in the midst of spontaneous increase, man languishes for want of stimulus to his industry, and is rarely great, respectable, or happy.

There is great truth, however, in the spirited remarks of lady Morgan on this subject. 'It is a calumny against Providence, and a solecism in philosophy, to assert that there are nations so marked by physical tendencies to evil, so instinctively devoted to particular vices, that they remain unredeemable by good laws, incorrigible

by wise institutes! Almost all civilised nations have assumed a different moral phasis, according to the direction gradually given to them by political institutes. The heroes of Thermopylæ in one age, have, in another, been the slaves of barbarians; and a monk now governs, where a Cæsar trembled to assume the slightest insignia of power! The true instrument of man's degradation is his ignorance. Nature, which too frequently permits him to err, never teaches him to be vile; and the history of all countries bears out the philosophical observation of Dante, that

> Se 'l Mondo laggiù ponesse mente,
> Al fondamento che Natura pone,
> Seguendo lui, avria buona la gente.
> Paradiso, canto ottavo.

'It has been the fashion to accuse the Neapolitans of an inherent viciousness, over which external circumstances could hold no control; but the prejudice has only obtained currency in European opinion since that country has been the slave of Spain; for *conquered nations are always subjects of slander to their foreign masters*, who seek to sanction their own injustice by assuming the worthlessness of their victims. The base and bigoted descendants of Charles V., having maddened or degraded the Neapolitans by a delegated and odious government, well suited to produce such an effect, assigned the results of their own despotism to the idiosyncrasy of the people. The Neapolitans, however, thus accused of cowardice and incapacity, in former ages had assisted the Romans to drive Hannibal out of Italy, and had preserved their independence at an epoch when the rest of Italy had lost it. The kingdom of Naples gave to ancient Rome, Ennius, Cicero, Horace, Ovid, and Statius; and to modern Europe, Tasso, Sannazaro, and Salvator Rosa. Naples, in the lower ages, was the asylum of the little learning then left; and the greater part of the classics which have reached posterity was preserved by the learned industry of the Benedictine monks of Mount Cassin and Otranto. The flame of science was rekindled in the schools of Salerno; the pandects of Justinian (the code of legitimacy) were found at Amalfi; and in the sixteenth century its society, according to Apostolo Zeno, was so literary, that the intellectual of all countries might have chosen for their residence the favorite retreat of Virgil, of Seneca, of Livy, and of Claudian. But, above all other European countries, it was the glory of Naples to have resisted the papal power from its first foundation, to have disputed the asserted prerogatives of the see in all ages, and to have refused, invariably and successfully, the admission of that worst and most powerful of all engines of terror and degradation,—the Inquisition!'

We may resume the literary history of this country; but must here allow our fair guide to exhibit her views of the general manner of the people.

'That large proportion of the population of the kingdom of Naples,' says this writer, 'called 'the people,' presents itself more readily to the stranger's observation, than the same class in any other civilised nation in the world. Their poverty scarcely leaves them a home to shelter in; and their climate renders a domicile rather a luxury than a necessity. The roof that skreens them from the inclemency of the night is the only roof they seek or know. The Lazzaroni, the refuse of the people, require not even this; a bench, or a boat, pillows their slumbers, and the sky is their canopy, except in those transient and violent gusts of bad weather to which Naples is subject; when the portico of a palace, or the colonnade of a church, affords them all the temporary shelter they require. The weather was occasionally very severe while we were at Naples; and it frequently happened that on returning late from the opera, or from assemblies, we found the filthy portico of our old palace strewed with Lazzaroni. Some lay upon the earth, others were flung over a cask, or gathered round a brasier of hot embers, just sufficiently bright to glare upon their marked and grotesque features. Nothing could be more courteous or cordial than their manner; they all jumped up to make way for us, welcomed us home, wished us a good night's rest; and one or two of them, who had got up some English phrases, applied them at random, by way of being particularly polite. One of the phrases most current upon the Mola was, 'Want a boat, Sir.'

'The daylight, which, according to the philosophy of Comus, 'alone makes sin,' is not shunned by the lower Neapolitans under any pretence. In the full glare of its lustre, in the full observance of the public eye, all the duties and all the offices of life are frankly and undisguisedly performed; groups seated at the corner of streets, at the thresholds of the poorer sort of houses, on the shores of the Scoglio or the Mare-chiano, on the Mola or the Largo, talking, laughing, menacing, or singing, are all domestically (though not often sentimentally) employed; wants are supplied or satisfied; trades carried on; Tasso read aloud; and heads cleaned, or beards shaven, all equally pro bono publico.* A pulchinello and a 'padre predicatore' (a preaching friar), in close contact, call on the sympathies of the dissipated and the devout at the same moment; and share between them the ever-laughing, moving, praying multitude; who seek sensations in proportion as they are denied ideas; and who, consigned unmolested to the influence of their vehement passions by the absence or feeble administration of the laws, are as destitute of moral principles as they are removed from the causes out of which moral principles arise, property and education. The falsity and dishonesty attributed to the Neapolitans, and always exaggerated, are the inevitable results of their social position. Their dishonesty, which rarely rises to acts of violence, except during political commotion, and which is generally accompanied by ingenuity and urged by poverty, is the natural vice of a people left without one conscientious principle, by that government whose laws have always been the slaves of power and privilege, and whose religion has a ready absolution, with its stated price,

* In every street in Naples stand one or more public *toilettes* for the use of the lower orders.

for every sin. Honesty and probity come with property; those who know the value of possession respect it in others on a selfish principle. To take what we want, is an instinct; to resist the temptation of satisfying that want upon principle is the result of knowledge and reflexion, guarded by opinion, and by the conscious existence of just laws, equally protecting and benefiting every member of the social compact.

'The great mass of the population of the kingdom of Naples (including the Abruzzi and Calabria) are Arabs in their habits and principles, and Greeks in their subtilty and talents.

'When Massena had occasion to send a courier into Calabria, he was obliged to give him an escort of 150 men. There are scarcely any public roads or inns, a strong proof of incivilisation. The better orders are hospitable and munificent, and live like Arab chiefs. The predatory bands of this district, which Ruffo found so available, are frequently 500 strong. Of their ferocity and notions of honor the following anecdote was related to us:—A party of these banditti, about a year before we heard the anecdote, kidnapped a young Neapolitan, the heir of a wealthy family; and sent word to his father that they required 10,000 ducats for his ransom. The father sent them four, with an expostulatory letter; they returned the money and made no answer. The terrified father sent the whole sum, after some delay; but it was returned to him untouched, with the horrible intimation that his son was no more. A Neapolitan gentleman of eminent talent, who, for a considerable time, had a military command in Calabria under the French, assured us that the Calabrians were not only the finest race of people in Italy, but the most susceptible of civilisation and intellectual improvement; the upper classes are purely Greek in their tastes and talents, and are distinguished for their domestic affections and boundless hospitality. A Calabrian never betrays a confidence placed in him. Roads opened, manufactories and schools established, would rapidly redeem this people from their wild and lawless existence; but the government, when it levies and extorts taxes for them, does nothing more; and some of its banditti are said to be in its pay, and even to be looked upon as efficient allies in cases of emergency, to let loose against subjects who sigh for constitutions: their services under Ruffo are not forgotten.

'They (the Neapolitans) are devoted to a religion which insures them their feste popolari; they are attached to a government which has licensed their violence and indolence, and not only sanctioned, but allied itself with their predatory bands. The banditti of Puglia, led on by the Vardarelli (two brother chiefs of predatory celebrity), made terms with the government, and were for a time received into its pay. These were the causes which rendered the revolution distasteful to the lower orders, and which, when they were forced to take a part in the contests between independence and despotism, inclined them towards the latter. All governments are in the abstract alike to the outlaw; but the government which most favors disorder, moral and political, will best suit the professional bandit of the Abruzzi, or the brutal Lazzarone of Naples.

'To the long enslaved, long debased, lower classes of the Neapolitan dominions, the motives presented were not adequate to the sacrifice demanded. In their apprehension, political independence is but a metaphysical term! a pure abstraction!—they know nothing of its theory or its practice, of its benefits or its results. Accustomed for ages to misrule, they feel its force only in its more immediate causes; and they seize not the chain of inductions which unites the constitutional movement with their personal interest. Had they been given a Madonna to defend, or any sensible image to rally under, they might have been found more firm in the hour of danger; but they were not prepared to fight for independence—a word of which the despotism of Spanish, Austrian, and Bourbon kings had left them in perfect ignorance.'

'The *religion* of the lower orders in Naples is scarcely Catholicism. It is not a creed; it is a tradition—descended rather from their Greek ancestors than imbibed from the Roman church, to which they have always opposed themselves. Of all Christian sects, the church of Naples is perhaps the most idolatrous, and at the same time the least intolerant. It seeks not to scrutinise too closely religious professions, or to investigate the faith of those who maintain a decent exterior. Too secure for doubt, and too enjoying for activity, it will not hear of persecution; and even its bishops teach, that the first Christians were but enlightened reformers, who endeavoured, in the worst times, to purify the corruption of society. The gross minds and ardent imaginations of the neglected and vivacious people know nothing of the abstract dogmas of religion: they require and possess a tangible creed—a something to see and touch, to complain of, and to adore. The wild Calabrian treats his tutelar saint according to his merits: he is prodigal of praises to his honor and glory, or he flings him down the mountain, or knocks him off his shrine, as he finds him propitious or otherwise. We were assured that saint Gologaro (the patron of Calabria) had seldom his due complement of limbs and features; but, when good harvests and fine weather brought him into favor, his pardon was asked, his nose glued on, his face fresh painted, and his sanctity replaced in all its honors. In the old part of Naples, where every thing remains as the Arragons and Anjous left it centuries back, the narrow gloomy lanes abound in idol-shops. Here are to be purchased offerings for altars, such as the votarists of Flora and Pomona presented at their shrines, when Naples was a Greek colony—large bouquets of flowers, made of tin, feathers, or paper—fruits in wax—strings of noses, ears, eyes, and fingers—'Salvatori' of all sizes and ages, from the cradle to the sepulchre—'Madri dolorose,' or 'del conforto'—and Magdalens in all their stages of penitence or beatitude. In one of these shops we found a dirty boy carving a Madonna out of a block; and an old man, his master, sticking glass eyes in the head of St. Januarius; meantime an old woman stood haggling with the Padrona, who was selling

saints as the mistresses of toy-shops sell dolls. The pious purchaser was long undecided, between a crucifix and a St. Sebastian struck through with arrows; at last, she fixed on the former, wrapped it up in her pocket handkerchief, and hobbled off to nail it up at her bedside, as an idol to receive all those invocations which fill up the time and satisfy the cupidity of a devotee.'

Our author very justly adds 'the ill-success of the late effort, so far from affording an argument favorable to the views and crimes of invading despotism, is an additional proof of the inhuman selfishness of the invader. What is to be said of a government which reduces the great majority of the people to a slavish insensibility to national degradation,—to a perfect indifference to national honor—a government which renders the subject too ignorant to comprehend the causes of his sufferings, and too listless to seek their removal?'

The *ancient history* of this country falls under the articles Rome and Italy; the present state of it, as well as the rest of Italy, had its basis in the conquests of Charlemagne. When he put an end to the kingdom of the Lombards, he obliged the dukes of Friuli, Spoleto, and Benevento, to acknowledge him as king of Italy; but allowed them to exercise the same power and authority which they had enjoyed before his conquest. Of these three dukedoms Benevento was by far the most powerful and extensive: it comprehended almost all the present kingdom of Naples; that part of Calabria Ultra beyond the Savuto and Peto, a few maritime cities in Calabria Citra, with the city of Acripoli and the promontory of Licosa; and, lastly, the dukedoms of Gaeta, Naples, and Amalsi, which were very inconsiderable, and extended along the shore only about 100 miles, interrupted by the Gastaldate, or county of Capua. This flourishing and extensive dukedom was at this time governed by Arechis, who had married one of the daughters of Desiderius, the last king of the Lombards, and had submitted and taken the oath of allegiance to the emperor Charles. But a few years after he renounced his allegiance to the Franks, and declared himself an independent sovereign. To strengthen himself against Pepin king of Italy, who resided at Ravenna, he enlarged and fortified the city of Benevento, and built Salerno on the sea-coast, surrounding it with a very strong and high wall. He engaged in several wars with the Greeks, whom he sometimes obliged to give him hostages; but, having invaded the territories of the pope, Charlemagne returned to Italy. Arechis, unable to oppose such a formidable enemy, sent his eldest son, Romuald, to Rome, with an offer of submission; but, at the instigation of the pope, Charles refused the offer, and detained his son prisoner; after which he ravaged the country, and made himself master of Capua. Other deputies, however, proved more successful; and, in 787, a peace was concluded on these conditions: That Arechis and the Beneventans should renew their allegiance to the Franks; that he should pay a yearly tribute to Pepin, deliver up all his treasure, and give his son Grimoald and his daughter Adelgisa, with twelve others, as hostages for his fidelity; however Adelgisa was restored to her father. Charles had no sooner left Italy than Arechis forgot all his engagements, and began to negociate with Irene, empress of Constantinople, for expelling the Franks out of Italy. For himself, he desired the honor of patriciate, and the dukedom of Naples; and, in return, promised to acknowledge the Greek emperor as his sovereign. He required, however, to be supported by a Greek army; and that his brother-in-law Adalgifus, son to king Desiderius, should be sent over into Italy to raise a party. These conditions were readily accepted, on condition that prince Romuald should be sent as a hostage; but, before the completion of the terms, prince Romuald died, and soon after him his father.

After the death of Arechis, the Beneventans sent a most submissive embassy to Charlemagne; in consequence of which Grimoald, the late king's son, was allowed to assume the government, after he had agreed to several conditions, of which two were, That he should oblige the Lombards to shave their beards; and that he should cause the walls of Salerno, Acerenza, and Consia, to be demolished.—The new king for some time continued faithful to his engagements, excepting the last article. Yet having contracted an alliance with the Greek emperor, by marrying his niece Wanzia, in the fifth year of his reign a war broke out between him and Pepin, which continued for twelve years; after which a truce was concluded. Grimoald survived this pacification three years, and was succeeded by his treasurer Grimoald II., who submitted to Charlemagne after the death of Pepin; and from this time the Beneventans were looked upon as tributaries of the western emperors. As yet, however, Naples did not own allegiance to the dukes of Benevento, but was held by the eastern emperors; and frequent wars took place between the Beneventans and Neapolitans. This was the case when Grimoald II. ascended the throne. He concluded a peace with them, but it was of short continuance; for Theodore governor of Naples, having granted protection to Dauferius, a noble Beneventan, who had been concerned in a conspiracy against his prince, Grimoald marched against Naples, and invested it by sea and land. Theodore still refused to deliver up the traitor, and a general engagement ensued by land and sea; in which the Neapolitans were defeated with so great slaughter, that the sea was stained with their blood for above seven days. Theodore then consented to deliver up Dauferius, with 8000 crowns for the expenses of the war: and Grimoald not only pardoned Dauferius, but received him into favor; the traitor, however, was seized with remorse, and went on pilgrimage to the Holy Land, carrying a large stone in his mouth, by way of penance, which he never took out but at meals. In 821 Grimoald was murdered by Radelchis, count of Consia, and Sico, gastald of Acerenza, the latter of whom succeeded to the duchy of Benevento. Radelchis, being soon after seized with remorse, became a monk; while Sico associated his son Sicardo with him in the government, and soon after attacked the Neapolitans, and invested the city by sea and

land. The walls were furiously battered, and, part of them being beat down, Sico prepared for a general assault. Stephen, then duke of Naples, pretended to submit; but intreated Sico to put off his entry till the morning, and in the mean time sent his mother and his two children as hostages. Sico consented, but next morning found the breach built up, and the Neapolitans prepared for their defence. Exasperated at their perfidy, he renewed his attacks with vigor, but without success; the besieged defending themselves with the utmost obstinacy. At last they consented to a peace, on condition that the Neapolitans should pay an annual tribute to the princes of Benevento, and consent to the transporting of the body of St. Januarius from his church without the walls of Naples to Benevento. These terms being ratified, Sico returned to Benevento; but soon after renewed the war, under pretence that the Neapolitans had neglected to pay the stipulated sum; and hostilities continued till his death, which happened in 833. Sico was succeeded in the government of Benevento by his son Sicardo, who had married the daughter of Dauferius; and being influenced by Roffrid, his wife's brother, oppressed his subjects to such a degree that they conspired against his life. He besieged Naples with a powerful army, and took possession of Acerra and Atella. But Bonus, the Neapolitan duke, defended himself so vigorously, that the Beneventans were obliged to retire, and even to abandon Acerra and Atella. At last Sicardo agreed to a peace for five years, on the intercession of the emperor Lothaire, in 836, after the war had continued, with very little intermission, for sixteen years. Soon after this peace the Saracens landed at Brindisi: and, having taken it, ravaged all the neighbouring country. Sicardo marched against them with a numerous army; but the Saracens having dug a great number of ditches, which they slightly covered over, drew the Beneventans in among them, whereby they were repulsed with great loss. However, Sicardo, having reinforced his army, marched again to attack them; but the Saracens pillaged and burnt Brindisi, and retired with their booty and many captives to Sicily. Sicardo then attacked Amalfi, levelled its walls, carried off its wealth, and the body of its tutelar saint, Triphomen, and transported many of its inhabitants to Salerno. During these transactions, Sicardo had tyrannised over his subjects in such a manner, that he became intolerable. His nobles were at last provoked to conspire against him; and, in 839, he was murdered in his tent.

On the death of Sicardo, Radelchis, his secretary or treasurer, was unanimously elected prince of Benevento; but Siconolphus, the last king's brother, having regained his liberty, formed a great party against the new prince. Radelchis opposed him with a formidable army; and a most ruinous civil war ensued. Both parties by turns called in the Saracens, and these treacherous allies acted sometimes against the one and sometimes against the other; or turned their arms against both, as seemed most suitable to their own interest. Thus the war continued with the utmost animosity for twelve years, during which time the principality was almost entirely ruined; till at last the emperor Louis II. interposed, and obliged the competitors to agree to a partition of the principality. By this treaty Radelchis promised to acknowledge Siconolphus and his successors as lawful princes of Salerno, which was declared to contain Tarento, Latiniano, Cassano, Cossenzo, Laino, Lucania, Consia, Montella, Rota, Salerno, Sarno, Ciraterium, Furculo, Capua, Feano, Sora, and the half of the gastaldate of Acerenza, where it joins Latiano and Consia. The boundary betwixt Benevento and Capua was fixed at St. Angelo and Cerros; Alli Peregrini was made the boundary betwixt Benevento and Salerno, and Staffilo betwixt Benevento and Consia. The monasteries of Monte Cailino and St. Vincent were declared to be immediately under the protection of the emperor; both princes stipulated that no hostilities should be committed by either against the subjects of the other, and promised to join their forces to drive out the Saracens. Soon after this pacification, however, both Radelchis and Siconolphus died; the former appointing his son Radeclare to succeed him, and the latter leaving an infant son, Sico, to the care of his godfather Peter. The war with the Saracens proved very unsuccessful; neither the united efforts of the princes, nor of the emperor Louis himself, being able to expel the infidels; and, in 854, Adelgise the second son of Radelchis, who had now succeeded, on the death of his brother Radelcar, to the principality of Benevento, was obliged to pay them an annual subsidy. Two years after, Lando, count of Capua, revolted from the prince of Salerno, and could not be reduced. In the mean time, Sico, the lawful prince of Salerno, had been poisoned by count Lando, and the principality usurped by Ademarius, the son of Peter above mentioned; but in 861 Ademarius was seized and imprisoned by Gauferius, the son of Dauferius formerly mentioned. This was occasioned by his cruelty and rapaciousness, which entirely alienated the hearts of his subjects from him, and encouraged Gauferius to become the head of the conspirators. The Saracens in the mean time committed terrible ravages throughout the Beneventan territories; which at last obliged Adelgise to enter into an alliance with Gauferius, and both together sent an embassy to the emperor Louis, requesting him to take them under his protection. About the same time an embassy arrived from Constantinople, proposing a junction of the forces of the Eastern and Western empires against the infidels; upon which Louis gave orders for assembling a formidable army. But in the mean time Adelgise made peace with the Saracens; and even encouraged them in their incursions into the duchies of Capua and Naples, which they ravaged in a most barbarous manner. The Neapolitans, in conjunction with the duke of Spoleto and the count of Marsi, opposed them; but, being defeated, they continued their ravages with redoubled fury, and retired to Bari, their capital, with an immense booty. In 866 Louis arrived at Sora with his army; and, having marched to Capua, was there joined by Landulph, the bishop and count, with a body of Capuans; but Landulph soon after persuading his country-

men to desert, Louis marched against that city, which he took after a siege of three months, and almost totally destroyed. In the end of the year he was joined by Gauferius, with his troops, having ordered the eyes of Ademarius to be put out in his absence. Louis confirmed him in the principality, and marched with his army to Benevento, where Adelgise received him with great respect. Having reduced some places belonging to the Saracens, Louis invested Bari; but as the Saracens received continual supplies from their countrymen in Sicily, and besides were protected by the Neapolitans, he could not reduce the place till 871, though he had received considerable assistance from his brother Lotharius, and the Greek emperor had sent him a fleet of 200 sail. The expulsion of the Saracens was completed the same year by the taking of Tarento; after which the emperor returned with great glory to Benevento, resolving next to carry his arms into Sicily, and expel the infidels from thence also. But his schemes of farther conquests were frustrated by a quarrel between him and Adelgise. The latter, pretending to have been insulted by the empress, and oppressed by the French, seized the emperor, and kept him prisoner for forty days. But a body of Saracens having arrived from Africa, and laid siege to Salerno with an army of 30,000 men, ravaging the neighbouring country with the utmost barbarity, Adelgise was so much alarmed that he set the emperor at liberty, after taking his oath that he would not revenge the insult, and that he would never return to Benevento. Louis, having then joined his forces to those of the prince of Salerno, obliged the Saracens to raise the siege of Salerno; but, though they were prevented from taking that city, they entirely desolated Calabria. In 873 Louis went to Benevento, and was reconciled to Adelgise, but soon after died; and the Saracens continued their ravages to such a degree that the inhabitants of Bari delivered up their city to the Greeks. At the same time the Salernitans, Neapolitans, Cajetans, and Amalsitans, having made peace with the Saracens, were compelled to agree to their proposal of invading the territories of the Roman pontiff. His holiness exerted himself to the utmost, both with spiritual and temporal weapons, to defend his right; but was at last obliged to become tributary to the infidels. In the mean time all Italy was thrown into the greatest confusion by the death of Charles the Bald, who was poisoned at Pavia, as he was coming to the pope's assistance. Sergius, duke of Naples, continued a firm friend to the infidels, notwithstanding the thunder of a papal excommunication; but happening to fall into the hands of his brother Athanasius, bishop of Naples, that prelate put out his eyes, and sent him prisoner to Rome.

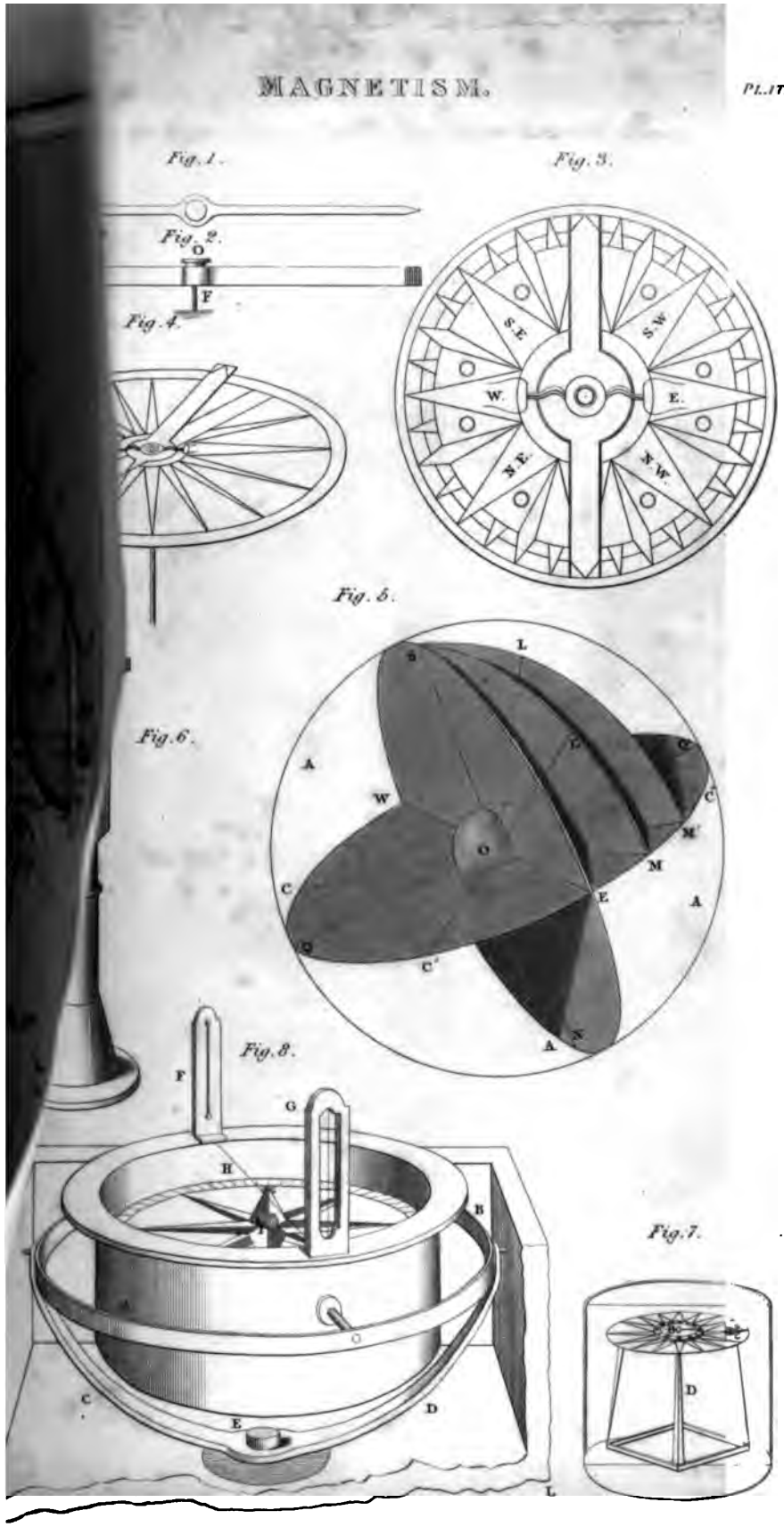
In 876 Adelgise was murdered by two of his nephews; one of whom, by name Caideris, seized the principality. About the same time Landulph, bishop of Capua, dying, a civil war ensued among his children. The princes of Salerno and Benevento, the duke of Spoleto, and Gregory, the Greek governor of Bari and Otranto, took different sides in the quarrel; the new bishop was expelled, and his brother, though a layman, chosen, and even consecrated by the pope, who wrote to Gauferius, forbidding him to attack Capua under pain of excommunication. But though Gauferius was, in general, obedient to the pope's commands, he proved refractory in this particular, and laid siege to Capua for two years successively. Thus the Capuan territories were reduced to the most miserable situation; being obliged to maintain at the same time the armies of the prince of Benevento and the duke of Spoleto. The Saracens in the mean time strengthened themselves in Italy; and Athanasius entered into an alliance with them, and ravaged the territories of the pope, as well as those of Benevento and Spoleto, plundering all the churches, monasteries, towns, and villages, through which they passed. Meantime the prince of Salerno was obliged to grant them a settlement near his capital; the duke of Gaeta invited them to his assistance, being oppressed by the count of Capua; and even the pope was obliged to make peace with them, and to grant them a settlement on the north side of Carigliano, where they fortified themselves, and continued for more than forty years. To put a stop to the confusion in Italy, the pope restored the bishop of Capua, but allowed his brother to reside in the city, and govern one half of the diocese; but, notwithstanding this partition, the civil dissensions continued with the utmost violence, the nearest relations murdering or banishing each orher, according as the fortune of the one or the other prevailed. Athanasius, notwithstanding the pope's remonstrances, continued his alliance with the Saracens; in conjunction with whom he ravaged the territory of Benevento, and fomented the divisions in Capua, in hopes of being able to conquer it. At last the pope excommunicated him, which attached him to the Saracens more than ever; insomuch that he invited Suchaim, king of the Saracens in Sicily, to come over and command a great body of his countrymen who had settled at the foot of Mount Vesuvius. Suchaim accepted the invitation, but immediately turned his arms against Athanasius; allowing his troops to live at discretion in the territory of Naples, where they ravished the women and plundered the inhabitants. These calamities being, by the superstitious Neapolitans, imagined to be consequences of the excommunication, they persuaded the prelate to renounce all connexion with the infidels. Athanasius accordingly concluded an alliance with Guimarius prince of Salerno, whereby the Saracens were obliged to quit the Neapolitan territories, and retire to Agropoli. Athanasius then directed his force against Capua, of which he made himself master in 882. The Saracens, however, still continued their incursions, and desolated several provinces. These confusions continued for a long time; during which the Greeks made themselves masters of Benevento, in 892, and had well nigh become masters also of Salerno; but in 896 they were totally expelled by the bishop. In 915 the Saracens received a complete overthrow at Carigliano. But a new body soon arrived from Africa, and invested the seacoasts. A war also ensued between Landulph and the Greeks; which concluded disadvantage-


LOWER EGYPT.
DESERT
NILE
MOUTH
British Miles.
5 10 20 30
30
31
Drawn by J. Assheton.
London Published

ville, May 1.1848.

MAGNETISM.

PLATE II.



London Published by Thomas Tegg 73 Cheapside May 1 1828.

J. Sharp sculp.

Fig. 1

Fig. 2.

Fig. 3.

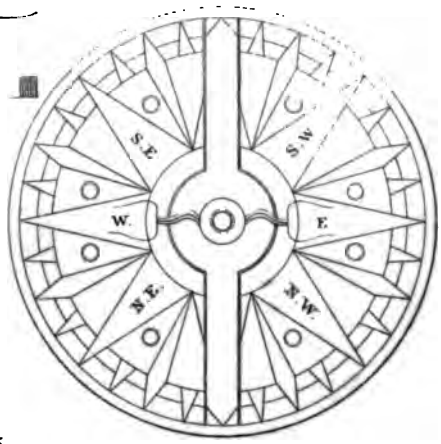
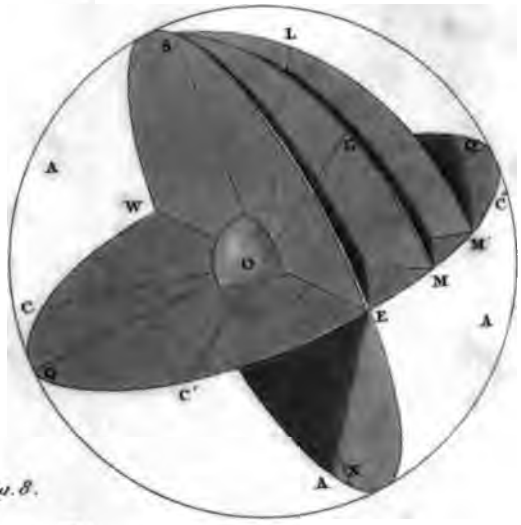


Fig. 4.

Fig. 5.



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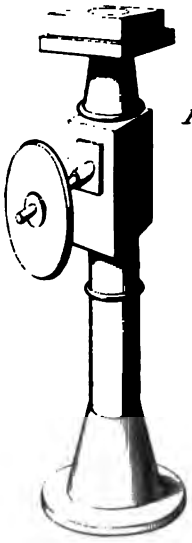

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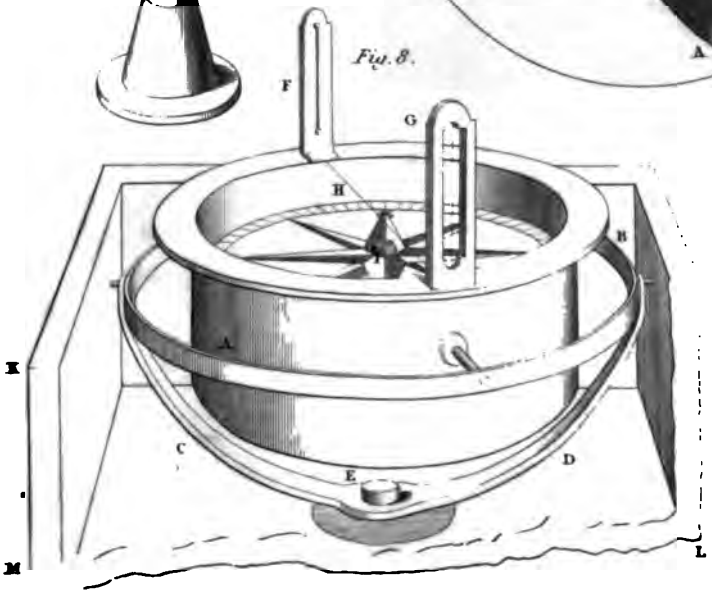

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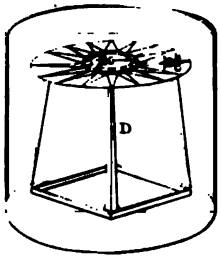

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J. Shury sculp

MECHANICS.

Fig. 3.

Fig. 2.

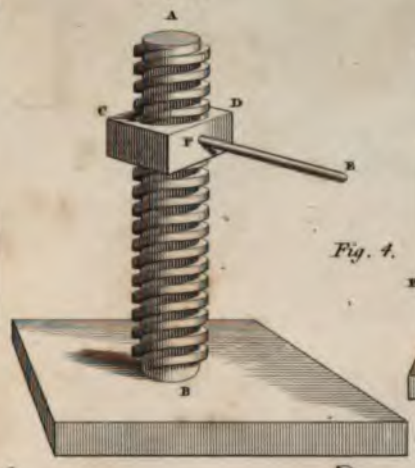


Fig. 1.

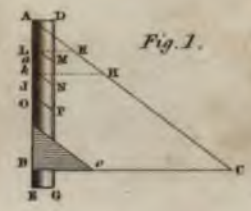
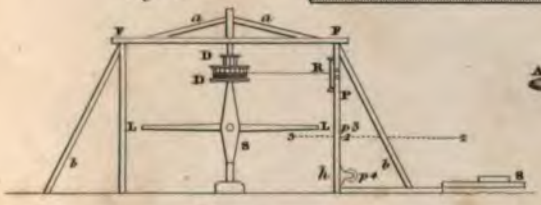


Fig. 4.

Fig. 7.



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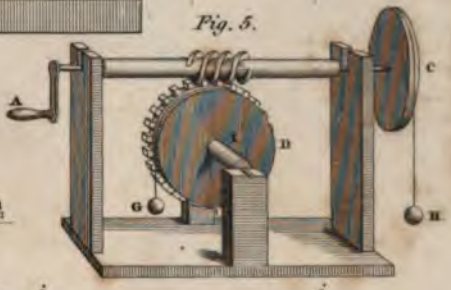

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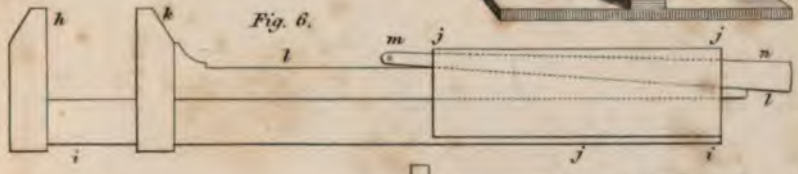

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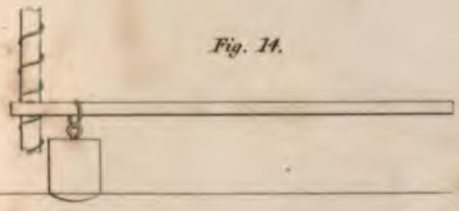

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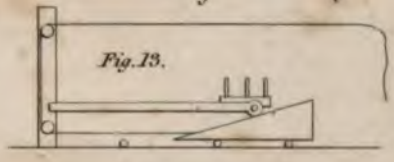

Fig. 9.

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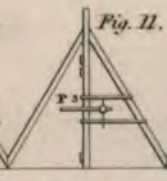

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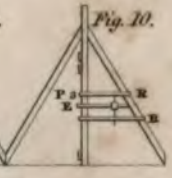

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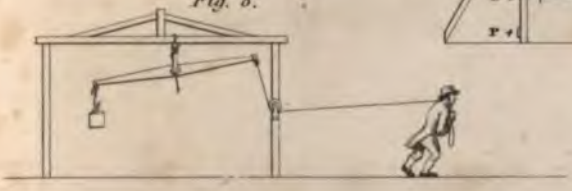

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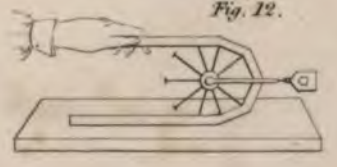

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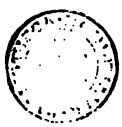
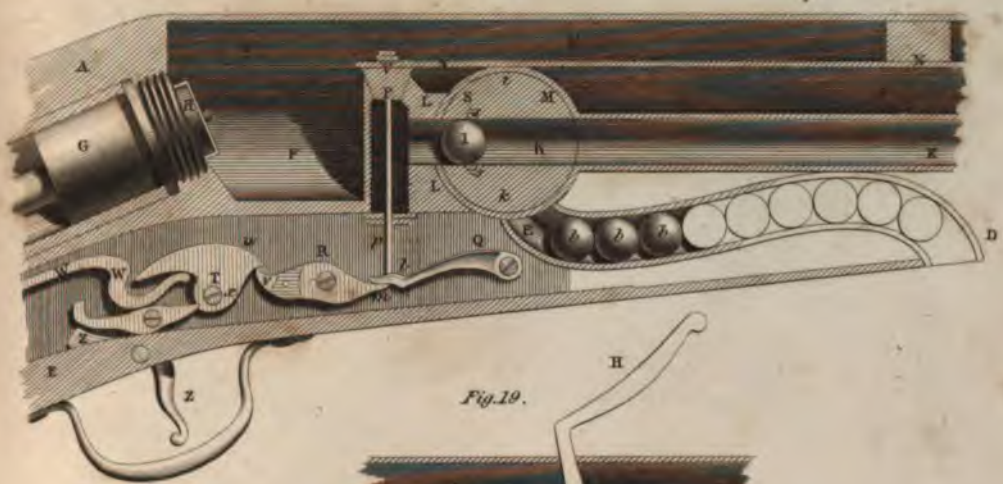


AIR-GUNS & CANE.

Fig. 14 to 18.



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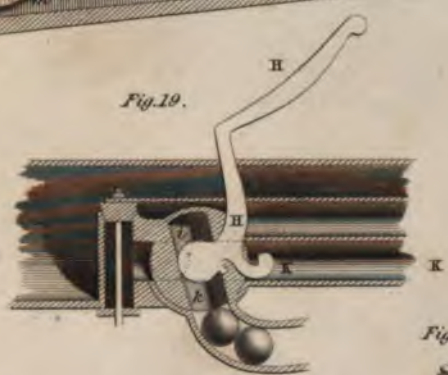


Fig. 9.

Fig. 13.

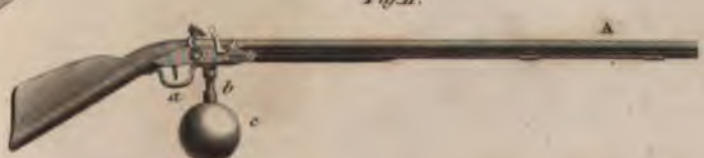
Fig. 20.

Fig. 12.

Air Cane.

Fig. 10.

Fig. 11.



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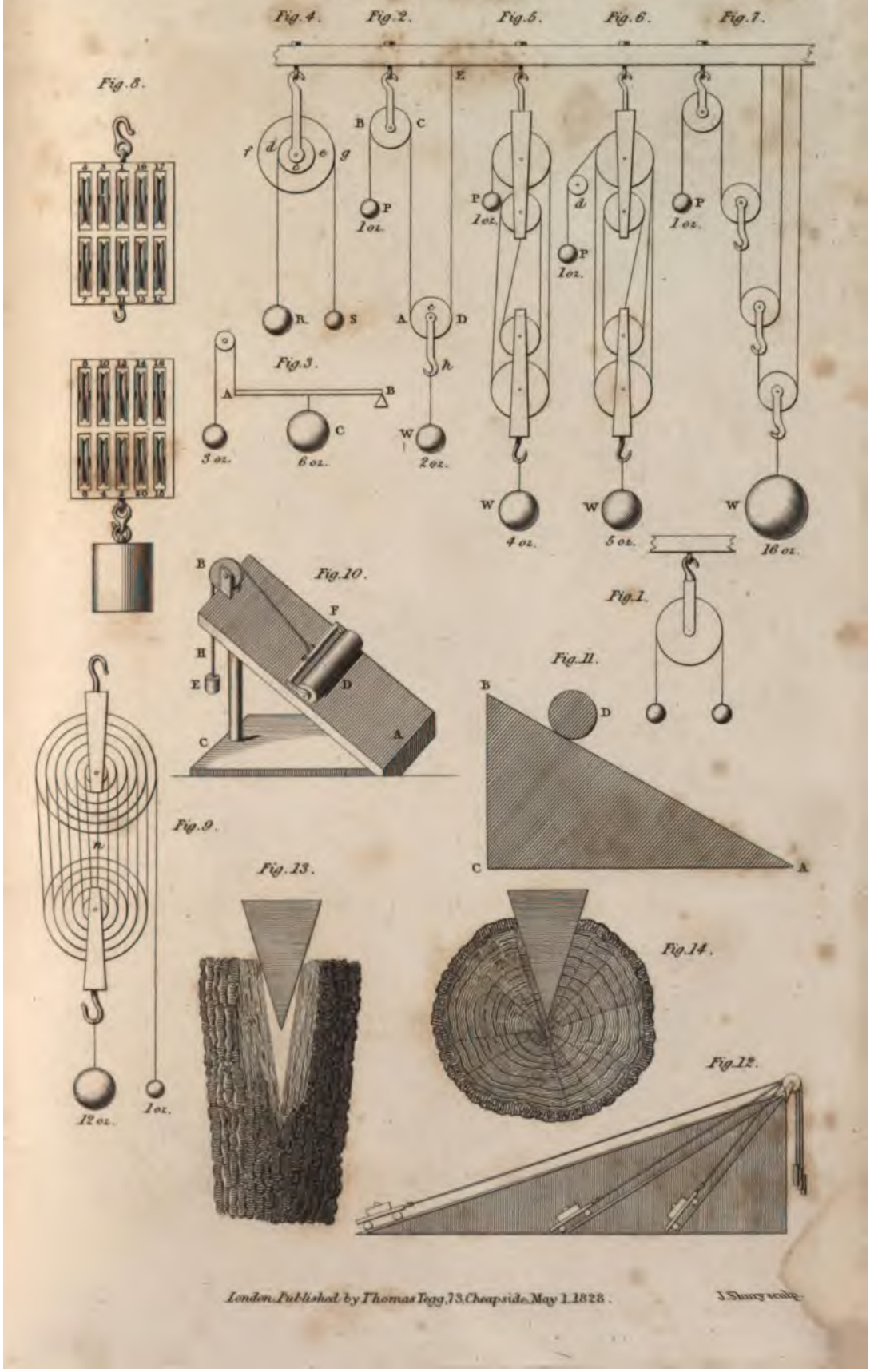
J. Shury sculp.

MECHANICS.



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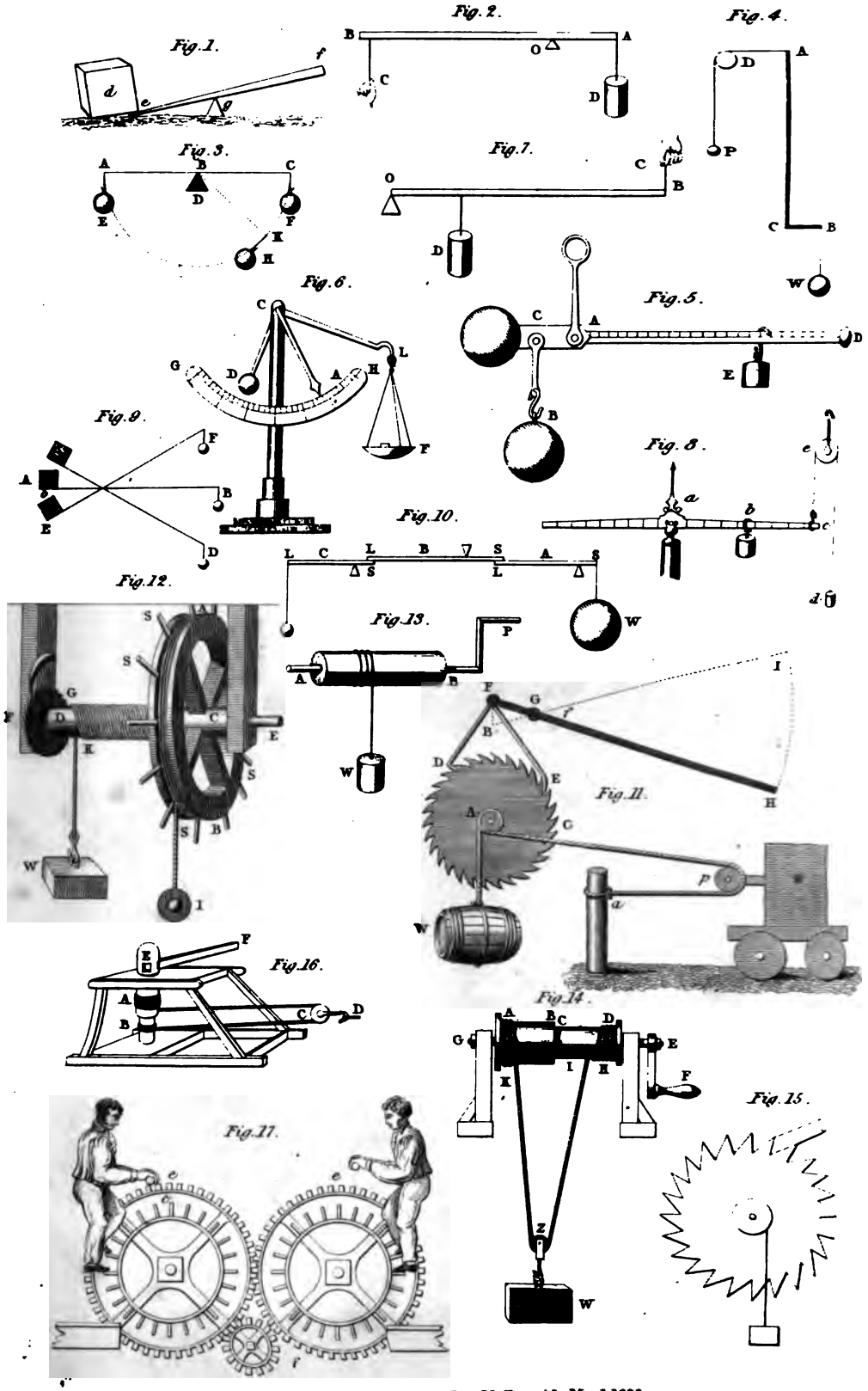
J. Shury sculp.

MECHANICS.



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J. Storey sculp.

AIR-PUMPS.

De Guericke's Air-Pump.

Mr. Boyle's Air-Pump.

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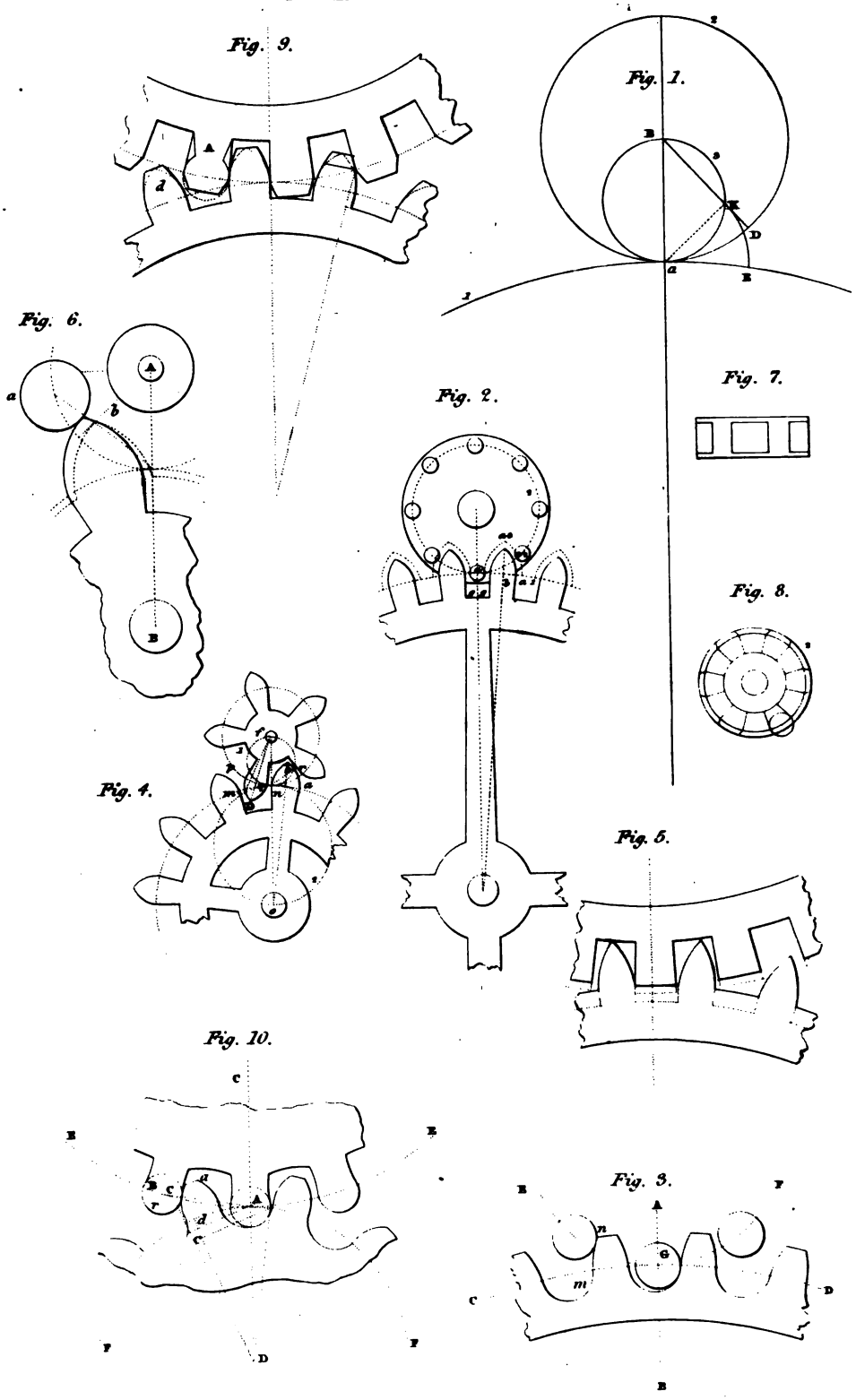
MILL WORK.

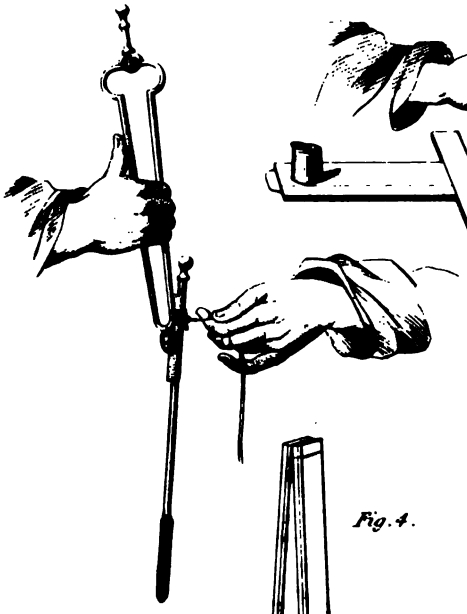


London, Published by Thomas Tegg, 73, Cheapside, May. 1, 1828.

J. Shury Sc.

MAGNETISM.

Fig. 1.



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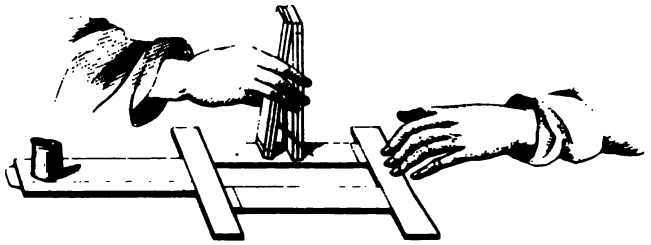

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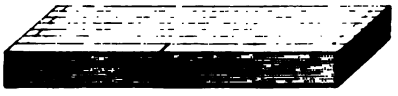

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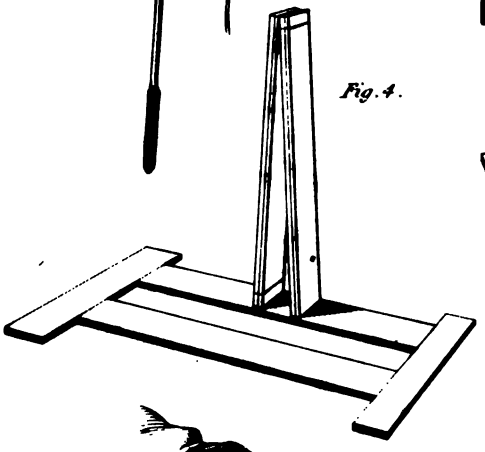

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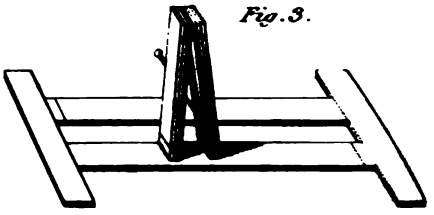

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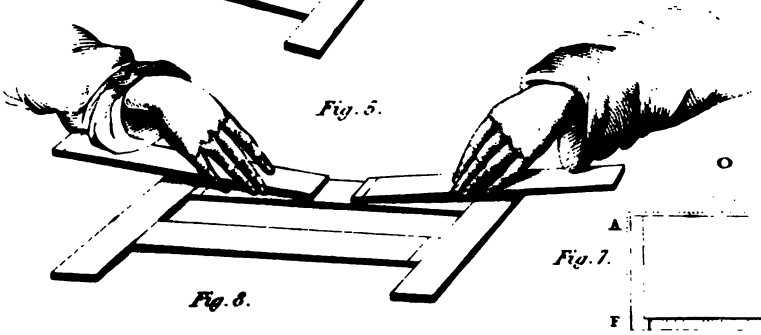


Fig. 7.

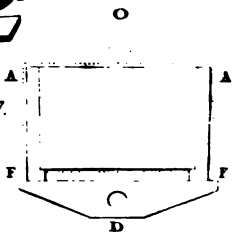


Fig. 8.

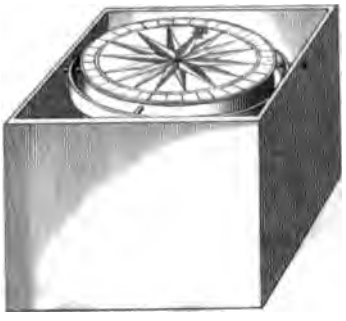
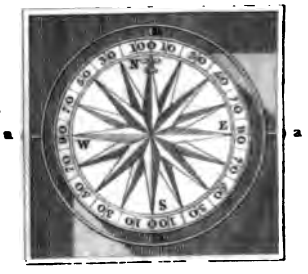


Fig. 9.



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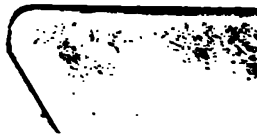

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